Appendix 1

Statement Outlining Compliance with Ministerial Guidelines

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 – 2028

Appendix 1: Statement Outlining Compliance with Ministerial Guidelines

Introduction

Section 28 of the Planning and Development Act 2000 (as amended) requires a planning authority to append a statement to a draft development plan which includes information which demonstrates how the planning authority has implemented the policies and objectives of the Minister contained in Section 28 Guidelines when preparing the plan.

Where the planning authority has decided not to implement certain policies or objectives of the Minister contained in the guidelines, the statement must give the reasons why.

This statement has been prepared in accordance with Section 28, and details how the planning authority has implemented Section 28 Minister Guidelines in the Draft Waterford City and County Development Plan 2022-2028.

Section 28 Guidelines	Statement
Housing Supply Target Methodology for Development Planning (2020)	These guidelines are referred to within the plan and implemented in Volume 1: Chapter 2 – Core Strategy, Chapter 7: Housing and Volume 2: Development Management Standards and Appendix 3: HNDA and Housing Strategy.
Design Manual for Urban Streets and Roads (2020)	These Guidelines underpin the approaches and objectives relating to the design of roads and streets in Waterford City, and the towns and villages in the county. These guidelines are implemented in Chapter 3 Waterford MASP, Chapter 5 Transport, Chapter 8 Placemaking and Volume 2 Development Management Standards.
Urban Development and Building Heights: Guidelines for Planning Authorities (2018)	These guidelines are referred to within the plan and implemented in Volume 1: Chapters 3 & 7, Volume 2: Development Management Standards and Appendix 3: Housing Strategy.
Sustainable Urban Housing -Design Standards for New Apartments Guidelines for the Planning Authorities (2018)	These guidelines are referred to within the plan and implemented in Volume 1: Chapters 3 & 7, Volume 2: Development Management Standards and Appendix 3: Housing Strategy.
Part V of the Planning and Development Act 2000 (as amended) (2017)	These guidelines are referred to within the plan and implemented in Volume 1: Chapter 7 – Social Housing and Part V and Volume 2: Development Management Standards and Appendix 3: HNDA and Housing Strategy.
Local Area Plans Guidelines for Planning Authorities (2013)	The planning authority will have regard to these guidelines and any updated version when preparing new local area plans in the county as identified in the plan.
Development Contributions Guidelines for Planning Authorities (2013)	Waterford City and County Council had regard to the guidelines when preparing the current Development Contributions Scheme and will be

	applied to relevant developments.
Spatial Planning and National Roads – Guidelines for Planning Authorities (2012)	The provisions of these guidelines have been implemented throughout the plan; particularly referenced in Chapter 5: Transport and Mobility and Volume 2: Section 8 of Development Management Standards.
Retail Planning Guidelines for Planning Authorities and Retail Design Manual – A Good Practice Guide (2012)	These guidelines are referred to within the plan and implemented in Volume 1: Chapter 3 – City Retail Strategy, Chapter 4 - County Retail Strategy, Volume 2: Development Management Standards and Appendix 4: Retail Strategy.
Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2012)	The provisions of these guidelines are implemented in Volume 2: Development Management Standards.
Flood Risk Management Guidelines for Planning Authorities (2009)	The provisions of these guidelines have been implemented throughout the plan. In particular a SFRA has been carried out in accordance with the guidelines (Appendix 13).
Sustainable Residential Development in Urban Areas-Guidelines for Planning Authorities and Best Practice Urban Design Manual (2009).	These guidelines are referred to within the plan and implemented in Volume 1: Chapters 3, 7, Volume 2: Development Management Standards and Appendix 3: Housing Strategy.
Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2009)	Appropriate Assessment has been carried out in accordance with the statutory requirements and having regard to the guidelines. A Habitats Directive Natura Impact Report is included as Appendix 20. Volume 1: Section 9.8 relates to Appropriate Assessment. Mitigation measures from the AA process have been incorporated into the plan as appropriate throughout.
Provision of Schools and the Planning System - A Code of Practice for Planning Authorities (2008)	The policies and objectives contained in the guidelines are implemented in Chapter 4: Education, Chapter 7: Educational Facilities and Volume 2: Development Management Standards.
Development Plans Planning Guidelines for Planning Authorities (2007)	The plan follows the recommendations of the guidelines with regard to the preparation and content of the plan.
Development Management - Planning Guidelines for Planning Authorities (2007)	Volume 2 of the CDP sets out the development management standards that will be used to assess and determine planning applications.
Wind Energy - Guidelines for Planning Authorities (2006) and Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change	The Renewable Energy Strategy (Appendix 7) and the Renewable Energy objectives set out in Chapter 6: Utilities Infrastructure, Energy & Communications, as well as Section 5.24 of Volume 2: Development Management Standards (Renewable Energy Developments) have been prepared having regard to the guidelines.

Sustainable Rural Housing - Guidelines for Planning Authorities (2005)	These guidelines are referred to within the plan and implemented in Volume 1: Chapter 2 – Core Strategy, Chapter 7 – Rural Housing and Volume 2: Development Management Standards and Appendix 3: HNDA and Housing Strategy.
Quarries and Ancillary Activities-Guidelines for Planning Authorities (2004)	The policies and objectives contained in the guidelines are implemented in Chapter 6: Utilities Infrastructure, Energy & Communications and Section 6.4 of the Development Management Standards.
Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Projects on the Environment-Guidelines for Regional Authorities and Planning Authorities (2004)	Strategic Environmental Assessment was carried out as part of the plan process and is included as Appendix 19. Mitigation measures from the SEA process have been incorporated into the plan throughout.
Architectural Heritage Protection-Guidelines for Planning Authorities (2004 and 2011)	The policies and objectives contained in the guidelines are implemented in Volume 1, Chapter 11: Heritage and Volume 2: Development Management Standards.
Architectural Heritage Protection for Places of Public Worship-Guidelines for Planning Authorities (2003)	The policies and objectives contained in the guidelines are implemented in Volume 1, Chapter 11: Heritage and Volume 2: Development Management Standards.
Childcare Facilities Guidelines (2001)	The policies and objectives contained in the guidelines are implemented in Chapter 7: Childcare Facilities and Volume 2: Development Management Standards.
Landscape and Landscape Assessment (Draft)-Guidelines for Planning Authorities (2000)	The policies and objectives contained in the guidelines are implemented in Volume 1 Chapter 10 Landscape and Appendix 8: Landscape & Seascape Character Assessment as well as the Development Management Standards.
Telecommunications Antennae and Support Structures (1996) and Circular Letter PL07/12	The policies and objectives contained in the guidelines are implemented in Chapter 6: Utilities Infrastructure, Energy & Communications and Section 5 of the Development Management Standards.
Tree Preservation Guidelines DOELG (1994)	These guidelines are referred to within the plan and implemented in Volume 1: Chapter 9: Climate Action, Biodiversity and Environment, and Volume 2: Development Management Standards.

Appendix 2
Specific Development Objectives

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Waterford City and County Draft Development Plan 2022 - 2028 Appendix No. 2 Specific Development Objectives		
Settlement Name	**ID No**	**General Policy Objectives**
Principal Objectives	**PODO1**	●DO1 It is an objective of the Council to strengthen and enhance the cores of all settlements by promoting the redevelopment of underused sites. All new development must be of an appropriate size, scale, character and design, and incorporate placemaking principles as outlined in Chapter 8 and Appendix 5, and hard and soft landscaping, along with visual improvements to the streetscape.
	PODO2	●DO2 As opportunities arise and where appropriate, the Council shall extend the public lighting to the edge of built up areas.
	PODO3	●DO3 As opportunities arise and where appropriate, the Council shall provide traffic calming measures, and new footpath/ cycle path through settlements. Development proposals, where appropriate, shall ensure that new development is set back to allow for the provision of new paving/footpath.
	PODO4	●DO4 Where public open space exits within the village boundary it is an objective of the Council to preserve and provide for recreational uses and amenity facilities on the site. In settlements where no public play or pocket park exists, opportunities will be facilitated in order to provide same.
	PODO5	●DO5 The Council shall facilitate the development of serviced sites and/ or clustered housing within the settlement boundaries. Any development should not not detract from the visual setting of the village, particularly when viewed from the approach roads to the settlement. Development should have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design.
	PODO6	●DO6 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses, rubblestone walls, water pumps, post boxes etc, as identified on the NIAH survey.
	PODO7	●DO7 Any development which is in a Architectural Conservation Area shall have regard to the planning guidance set in Appendix 10 of the Development Standards in Volume 2.
	PODO8	•DO8 In settlements where a connection to public drainage infrastructure is demonstrated to be unfeasible, and/ or is not available, alternative developer-provided infrastructure, in collaboration with the Local Authority or otherwise, may be required/ facilitated, if it is satisfactorily demonstrated that disposal of foul water can be achieved without negative impacts on public health, amenity or the environment. The provisions of Chapter 6, and especially Policy U04, should also be referenced in this regard.
	PODO9	●DO9 In addition to compliance with other policies and development management standards of the development plan, proposals for all land use types within settlements will be required to demonstrate that: 1) The scale of proposed development is consistent with the class/ typology of settlement as set out in the Settlement Strategy; 2) The proposal is compatible with the context of the site in terms of character, scale and density; 3) The proposal will contribute to the visual and general/residential amenity of the settlement and its built quality; 4) The proposal is accompanied by a program for developing out the site in terms of access to public water/wastewater, innovative solutions to wastewater such as integrated constructed wetlands and other services along with a completion timeframe; and, 5) The proposal will not prejudice the future development of land in its vicinity and the expansion of public amenities or community land uses such as schools. In order to avoid a situation where permitted residential development may sterilise other development proposals during the lifetime of the development plan we may specify the lifetime of a permission having regard to program for implementing the development identified in the proposal.
	PODO10	●DO10 Provision of high quality, sheltered and universally accessible bus stop facilities and public transport service information across all settlements.
	PODO11	●DO11 To protect the favourable conservation status of sites designated for nature conservation and ensure compliance with Article 6 and Article 10 of the Habitats Directive.
	PODO12	●DO12All settlements: Housing developments shall be designed and constructed so as to facilitate future vehicular access to adjacent lands zoned for R1 or SRR and where feasible permeability links to existing housing areas/public streets should be provided for active modes such as cycling and walking.
Aglish		
	AGDO1	●DO1 As opportunities arise, the Council shall provide a new footpath/ cycle path from all residential areas to the school.
	AGDO2	●DO2 It is an objective of the Council to retain the existing trees and grass verge located to the west of the Main Street.
	AGDO3	●DO3 Any development of this site shall provide for a new street frontage along the southern boundary of the site, with pedestrian access to Main Street. A landscaped buffer shall be provided between any new residential development and the adjoining industrial site.
	AGDO4	●DO4 Development on this site shall address the open space along the public road. It is an objective of the Council to provide an access road through the site (from the L2012 Road onto Main Street) to access the National School. Development on the site shall not detract from the setting of Aglish House (a Protected Structure).
	AGDO5	●DO5 Any development on this site shall address the public roads, respect the existing character and built environment of the village and provide for a community play area.
	AGDO6	●DO6 Any development on this site is within a zone of archaeological potential (Church graveyard) and any development proposal shall have due regard to same. The site also contains a vernacular structure. It is an objective of the Plan to retain elements of vernacular interest and the development of the site should take this into consideration in terms of its impact on same.
	AGDO7	●DO7 Site to be reserved to allow for the future potential expansion of the school/graveyard/playing fields.

Annestown		
	ATDO1	●DO1 It is an objective of the Council to retain and enhance the unspoilt picturesque character of the village. All new development/ redevelopment should have regard to the scale and design of the existing streetscape.
	ATDO2	●DO2 It is an objective of the Council to encourage the development of appropriate retail development. Opportunities exist for the redevelopment of buildings within the designated village centre to provide tourism related facilities such as a café/ shop etc.
	ATDO3	●DO3 It is an objective of the Council to protect the bathing water quality at Annestown beach and restrict any development which would result in a degradation of water quality.
	ATDO4	●DO4 It is an objective of the Council to retain and enhance the existing stone walls on the approaches into the village.
	ATDO5	●DO5 Development proposals shall ensure that new development is set forward in line with the existing streetscape.
	ATDO6	●DO6 It is an objective of the Council to facilitate the redevelopment of this core area within the village. The site (Annestown House) has the potential for restoration/ sensitive redevelopment for low density residential use and/or tourism/ craft related activities. Development of the site shall ensure that the existing buildings are refurbished and reused.
	ATDO7	●DO7 Any development must have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours. Development of the site shall not detract from the visual setting of the village, particularly when viewed from the approach roads to the village.
	ATDO8	●DO8 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Proposed development will be assessed in accordance with the provisions of the Development Plan.
Ardmore		
	ADDO1	●DO1 In addition to D01 of the Principal Objectives, it is also an objective of the Council to promote the village as a tourist destination based on its scenic coastal location and ecclesiastical heritage whilst protecting and enhancing these assets.
	ADDO2	●DO2 It is an objective of the Council to protect the bathing water quality at Ardmore beach and restrict any development which would result in a degradation of water quality.
	ADDO3	●DO3 It is an objective of the Council to protect and promote the existing public walkways and routes through and around the village ,including that related to St Declan's Well and Way.
	ADDO4	●DO4 It is an objective of the Council to protect and preserve the setting of Ardmore Tower and its associated ecclesiastical monuments. The visual impact of development on views of the Tower shall be a consideration of any application for permission.
	ADDO5	●DO5 Development at this location shall be required to have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours. Development of these lands shall not detract from the visual setting of the village, particularly when viewed from the approach roads to the village. Adequate buffer shall be provided from neighbouring proposed employment use to north of site.
	ADDO6	●DO6 It is an objective of the Council to facilitate and encourage the development of new enterprise/ employment units of a scale appropriate to the village on this site.
	ADDO7	●DO7 It is an objective of the Council to facilitate and encourage the development of new enterprise/ employment units of a scale appropriate to the village on this site. Proposed development shall have a sympathetic approach to design which utilises existing contours and any layout shall provide for a landscaped, high quality environment.
	ADDO8	●DO8 As opportunities arise, the Council shall provide a promenade/pedestrian walkway from the village centre north along the coastline.
	ADDO9	●DO9 The Council shall reserve land to provide a roadway from the R673 Road to serve the existing carpark so as to alleviate traffic congestion on the Main Street and provide a new access to the beach.
	ADDO10	●DO10 It is an objective of the Council to retain original features of vernacular buildings such as lime mortar render, natural slate, thatch, timber sash windows. Where appropriate the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows etc.
	ADDO11	● DO11 As the opportunities arise, the Council will support and facilitate the extension of the Cliff Walk to Goat Island and Whiting Bay.
	ADDO12	● DO12 It is an objective of the Council to support the provision of a museum and cultural facilities, as the opportunity arises on lands located immediately to the south of Ardmore GAA club.
	ADDO13	● DO13 It is an objective of the Council to support tourism development (camp site / campervan/ pods/ low impact tourism) on lands within the boundary of Ardmore Village to southwest of Bayside Cottage B&B.
Ballinameela (Whitechurch)		
	BLADO1	● DO1 Please see PODO1 - PODO10.
Ballyduff Upper		

	BDUDO1	● DO1 It is an objective of the Council to protect and promote the amenity of the River Blackwater and enhance existing access to the riverbank subject to compliance with Articles 6 and 10 of the Habitats Directive and ensuring no negative impact on the integrity of the River Blackwater SAC.
	BDUDO2	● DO2 The flood plain of the River Blackwater shall be preserved free from development.
	BDUDO3	● DO3 It is an objective of the Council to retain the existing trees located opposite the school.
	BDUDO4	● DO4 Any development on this site shall have an appropriate/sympathetic approach to design which utilises the existing contours and shall provide a strong building line to the public road.
	BDUDO5	● DO5 Any development at this location should not detract from the visual setting of the village, particularly when viewed from the approach roads to the village. Development should also have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design.
	BDUDO6	● DO6 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Proposed development will be assessed in accordance with the provisions of the Development Plan.
	BDUDO7	● DO7 To ensure availability of appropriate waste water treatment system within the settlement prior to any further residential development.
Ballylaneen		
	BLNDO1	● DO1 Please see PODO1 - PODO10.
Ballymacarbry		
	BMDO1	● DO1 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Proposed development will be assessed in accordance with the provisions of the Development Plan.
	BMDO2	● DO2 It is an objective of the Council to protect and promote the amenity of and pedestrian access to the river bank and encourage the development of public walkways, riverside parks and routes, subject to compliance with Articles 6 and 10 of the Habitats Directive and ensuring no negative impact on the integrity of the River Blackwater SAC.
	BMDO3	● DO3 The flood plain of the River Nire shall be protected as part of any development.
	BMDO4	● DO4 As opportunities arise, the Council shall facilitate the redevelopment of this site for village centre/community use.
	BMDO5	● DO5 It is an objective of the Council to retain the existing trees on approach roads to village.
	BMDO6	● DO6 It is an objective of the Council to facilitate the extension of the existing industrial use at Pinewood Laboratories onto this site.
	BMDO7	● DO7 Any development on this site should have due regard to the residential amenity of existing adjacent dwellings.
	BMDO8	● DO8 Any development on this site shall have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours.
	BMDO9	● DO9 This site shall be reserved for open space purposes.
Ballymacaw		
	BMCDO1	●DO1 It is an objective of the Council to protect and promote the amenity of Ballymacaw cove and enhance pedestrian access from the village to the cliff walk subject to compliance with Articles 6 and 10 of the Habitats Directive.
	BMCDO2	●DO2 Please see PODO1 - PODO10.
Bonmahon/ Knockmahon		
	BKDO1	● DO1 In addition to D01 of the Principal Objectives, it is an objective of the Council to facilitate and encourage the development of tourism related development of a scale appropriate to the village.
	BKDO2	● DO2 This site has the potential to be redeveloped for village centre uses.
	BKDO3	● DO3 It is an objective of the Council to protect and promote the amenity and pedestrian access to the beach and enhance existing public walkways and riverside routes.
	BKDO4	● DO4 It is an objective to protect the bathing water quality of Bunmahon Beach and to restrict any development which would result in a degradation of water quality.
	BKDO5	● DO5 It is an objective of the Council to protect the Copper Coast UNESCO Global Geopark and promote the development of geotourism in the area.
	BKDO6	● DO6 The Council shall facilitate infill development on this site.
	BKDO7	● DO7 Any proposed development shall provide a strong building line with the main road. The layout of the proposed development should take account of the topography of the site and seek to minimise cut and fill.
	BKDO8	● DO8 The layout of the development shall be dictated by the sloping nature of the site. Due regard shall be had to the visual impact of the development from the east and south of the site and minimising the level of cut and fill required.

	BKDO9	● DO9 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape through the retention of vernacular houses such as the thatched houses and houses on Osbourne Terrace and other structures associated with the mining heritage of the village, and rubblestone walls, water pumps and post boxes as identified on the NIAH survey.
	BKDO10	● DO10 It is an objective of the Council to retain original building features of vernacular structures such as lime mortar render, natural slate, thatch, and timber sash windows. Where appropriate the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows etc.
	BKDO11	● DO11 To support the further development of mining and geological heritage at Tankardstown Engine House.
	BKDO12	● DO12 To protect former mine spoil vegetation at Knockmahon that corresponds to the Annex 1 Habitat Calaminarian Grassland.
Butlerstown		
	BUTDO1	●DO1 Please see PODO1 - PODO10.
Cappoquin		
	CPDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the river Blackwater and enhance existing public walkways and riverside routes subject to compliance with Articles 6 and 10 of the Habitats Directive and ensuring no negative impact on the integrity on the River Blackwater SAC.
	CPDO2	● DO2 The flood plain of the River Blackwater shall be preserved free from development.
	CPDO3	● DO3 Any development on this site should have regard to the topography of the site and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours.
	CPDO4	● DO4 Any development at this location should enhance the visual setting of the site when viewed from the River Blackwater. Any development on this site should facilitate the potential extension of the Waterford Greenway.
	CPDO5	● DO5 It is an objective of the Council to facilitate and encourage the development of new industrial/employment units of a scale appropriate to the settlement on this site.
	CPDO6	● DO6 It is an objective of the Council to retain and enhance the existing stone walls and trees on the approach roads into the town.
	CPDO7	● DO7 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses such as those on Barrack Street, Main Street, the Green and Mill Street. Other features worthy of protection include rubblestone walls, freestanding water pumps and post boxes as identified on the NIAH survey.
	CPDO8	● DO8 It is an objective of the Council to retain original building features of vernacular structures such as lime mortar render, natural slate, shopfronts, timber sash windows. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and shopfronts, etc.
	CPDO9	● DO9 It is an objective of the Council to support the preparation and implementation of the Cappoquin Rural Regeneration Plan. In particular, the following are of note: • The extension of the Glenshelane River Walk from the current trail head in Glenshelane Wood into Cappoquin town. • The development of a Biodiversity Park on the lands between the road and the River Blackwater just south-east of the road bridge and north of the Railway Bridge. • The development of a community trail encompassing what is called the Railway Loop and the old railway bridge, lands adjacent to the Blackwater, an existing right of way to the rear of Port na hAbhann and other lands associated with Cappoquin Rowing Club.
Cheekpoint		
	CKPDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the river bank and facilitate the provision of public walkways and routes.
	CKPDO2	● DO2 The flood plain of the River Suir shall be preserved free from development.
	CKPDO3	● DO3 It is an objective of the Council to facilitate the redevelopment of this central site. The layout of any proposed development shall take account of the sloping nature of the site and use the existing contours. Development on the site shall not detract from the visual setting of the Suir estuary and Daisybank House, and shall facilitate enhancement of the riverside amenity.
	CKPDO4	● DO4 Any development on this site shall provide for roadside improvements.
	CKPDO5	● DO5 Any development on this site site shall provide for roadside improvements, public footpath/cycle-path and public lighting. The topography of the site should be taken into account in the layout of the development, and the amount of cut and fill required shall be minimised. Development shall not detract from the visual setting of the River Suir.
	CKPDO6	● DO6 Any proposed development on this site shall have an appropriate/sympathetic approach to design which utilises the existing contours of the site. Development shall not detract from the visual setting of the River Suir and shall be sympathetic in design when viewed from the L4082 Road.
	CKPDO7	● DO7 It is an objective of the Plan to protect elements of historical or architectural value in Cheeckpoint such as the refuge, quay, milestones, 1890 postbox and seawall, some of which have been identified by the NIAH Survey.
	CKPDO8	● DO8 To support enhanced access to river amenities in Cheekpoint, Faithlegg and along the estuary in support of fishing, amenity provision, heritage and tourism.
	CKPDO9	● DO9 To support the development of a public way along the estuary to link Faithlegg to Dunmore East.

Clashmore		
	CMDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the river bank and enhance/provide public walkways and routes.
	CMDO2	● DO2 The flood plain of the River Greggagh shall be preserved free from development.
	CMDO3	● DO3 Any development on this site should have regard to the topography of the site, and have an appropriate/sympathetic approach to design which utilises the existing contours and minimises the amount of cut and fill required.
	CMDO4	● DO4 The land adjacent to the national school shall be reserved to facilitate future expansion of the school.
	CMDO5	● DO5 The design of any proposed development on this site shall provide for a streetscape layout along the south-western boundaries and shall incorporate the stream and existing tract of open space as an amenity feature. This development of the site shall also incorporate the provision of a new vehicular access road linking up the R671 regional road to the north and south of the village.
	CMDO6	● DO6 The land to the south of the GAA pitch shall be reserved for future expansion of the grounds.
	CMDO7	● DO7 It is an objective of the Council to protect the elements of the streetscape of architectural or historical value, by the retention of the vernacular houses, rubblestone walls and water pumps as identified on the NIAH survey.
Clonea Power		
	CLPDO1	● DO1 It is an objective of the Council to ensure that an appropriate supplementary waste water system (possibly a wetlands system), is commissioned prior to the commencement of any further residential development.
	CLPDO2	● DO2 Intersite boundaries shall be densely landscaped, to provide a semi-rural nature to the development.
	CLPDO3	● DO3 It is an objective of the Council to provide a community play area, as the opportunity arises.
Carrick-on-Suir		
	CKEDO1	● DO1 The flood plain of the River Suir shall be preserved free from development.
	CKEDO2	● DO2 It is an objective of the Council to retain elements of industrial heritage such as Corragina Mill and to promote reuse of such sites in a sensitive manner, which will respect the existing built heritage.
	CKEDO3	● DO3 It is an objective of the Council to protect the favourable conservation status of the Lower River Suir SAC.
Clonmel Environs		
	CLEDO1	● DO1 As the opportunities arise the Council shall provide a footpath/cycle-path and public lighting on the R678 Road to connect the immediate Clonmel environs with the Clonmel Town boundary.
	CLEDO2	● DO2 The flood plain of the River Suir shall be preserved free from development.
	CLEDO3	● DO3 It is an objective that any development on elevated lands to the south of Clonmel town shall not detract from the visual setting of the town. Any development shall have regard to the topography of the site. The proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours and minimises the amount of cut and fill required.
	CLEDO4	● DO4 Maintain a 40 m buffer to the River Suir free from new development in the interest of retaining the natural function of the floodplain and protecting new development from flooding.
	CLEDO5	● DO5 The development of the strategic residential reserve lands will be informed by a masterplan for the area with particular focus on access and linkages to Clonmel town centre, permeability, servicing and amenity provision.
	CLEDO6	● DO6 To protect the line of a future river crossing linking Mongarriff roundabout to lands at Kilgainy Lower.
Dunhill		
	DHDO1	● DO1 Any development on this site shall have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours. Any development shall respect the setting and character of the village.
	DHDO2	● DO2 It is an objective of the Council to support and promote the development of Dunhill Enterprise Centre.
	DHDO3	● DO3 It is an objective of the Council to support the provision of sheltered housing at appropriate locations in Dunhill.
	DHDO4	● DO4 To support the provision of a covered outdoor performance space at the amphitheatre in Dunhill in support of culture and tourism.
Faithlegg		
	FLDO1	● DO1 The land surrounding the National School shall be reserved for future expansion of the school.

Fenor		
	FNDO1	● DO1 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Proposed development shall be assessed in accordance with the provisions of the Development Plan.
	FNDO2	● DO2 It is an objective of the Council to protect the conservation status of Fenor Bog.
	FNDO3	● DO3 It is an objective of the Council to retain existing stone wall/ hedgerows in the village.
	FNDO4	● DO4 Any development on the site between the school and the church, at the centre of the village shall not detract from the setting of the Church and shall have a sympathetic approach to design in keeping with the rural character of the village. Inter-site boundaries shall be landscaped, to provide a semi-rural nature to the development.
Fews		
	FEWDO1	●DO1 Please see PODO1 - PODO10.
Grange		
	GRDO1	●DO1 Please see PODO1 - PODO10.
Kilbrien		
	KILBDO1	●DO1 Please see PODO1 - PODO10.
Kill		
	KLDO1	● DO1 Site to be reserved to allow for the future potential expansion of the graveyard.
	KLDO2	● DO2 Any development proposal for housing shall ensure that intersite boundaries are densely landscaped to provide a semi-rural nature to the development. Development on the site shall provide a strong building line with the public road.
	KLDO3	● DO3 It is an objective of the Council to protect the elements of the streetscape of architectural or historical value, by the retention of the vernacular houses, rubblestone walls, milestone and post box as identified on the NIAH survey.
	KLDO4	● DO4 The Council will support the upgrade and refurbishment of the existing community centre to create a modern, sustainable, multi-purpose facility at the heart of the village. It is hoped to fully utilise the site on which the community centre building sits to create a hub at the heart of the village by: o Developing a community playground area within the existing landscaped area to the front of the community centre building, adjacent to Kill GAA pitch. o Developing an outdoor multi-functioning entertainment/performance space and parkland area to the rear of the Community Centre building.
	KLDO5	● DO5 The Council will support the development of the currently derelict site at An Dallan to the north of the village into a community garden/ orchard which will enhance biodiversity and sustainability of the village.
	KLDO6	● DO6 Retain lands immediately to the north and east of Kill National School to facilitate expansion of the school and its facilities.
Kilmacthomas		
	KMDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the river bank and enhance existing public walkways and riverside routes.
	KMDO2	● DO2 This site can facilitate medium density housing. The developer will be required to have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design which utilises the existing contours.
	KMDO3	● DO3 It is an objective of the Council to facilitate and encourage the development of new industrial/ employment units of a scale appropriate to the settlement. Any industrial units shall be of a high standard of design and finish. Adequate buffer spaces/ landscaping shall be provided so as to ensure no negative visual impact on the N25 Road or the adjacent residentially zoned lands.
	KMDO4	● DO4 Any development on this site shall include a strong building line to the public road, with an emphasis on high quality design and finish. The open space shall be retained as a feature of the site.
	KMDO5	● DO5 It is an objective of the Council to facilitate the development of enterprise units on this site to accommodate arts & crafts (and associated retail), office use, appropriate tourism accommodation, and training and education uses. Development shall have regard to the Protected Structures on site and shall be subject to Best Conservation Principles.
	KMDO6	● DO6 It is an objective of the Council to protect the elements of the streetscape of architectural or historical value, by the retention of the vernacular houses such as those on those on St Anne's Terrace and on Main Street. Other features worthy of retention are rubblestone walls, freestanding water pumps, and elements of the former railway line including the Railway Station, post boxes and pillar boxes as identified the on NIAH survey.
	KMDO7	● DO7 It is an objective of the Council to facilitate the appropriate redevelopment/reuse of the former firestation site and possible access to lands to the rear.

Kilmeaden/ Ballyduff Lower		
	KLMDO1	● DO1 It is an objective of the Council to facilitate and encourage the development of new industrial/ enterprise/ employment uses on this site which do not detract from the amenity of the existing village. The lands shall be primarily developed for industrial /employment uses and limited consideration may be given to residential development on the lands fronting onto the R680 Road. The Council shall seek the provision of a new focal point to the village centre and enhancement of the visual appearance of the Main Street. Particular regard to be had to the visual impact when viewed from the R680, permeability through the site and its relationship with the existing village core. A streetscape shall be created along the north-eastern boundary. Any industrial units shall be of a high standard design and finish and any layout shall have due regard to non –compatible adjoining land uses.
	KLMDO2	● DO2 Any development proposal shall incorporate linkages to the existing residential area, access, etc.
	KLMDO3	● DO3 The Council shall facilitate the development of enterprise units at a scale appropriate to Kilmeaden village. A high standard of architectural design and finish shall be required.
	KLMDO4	● DO4 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Development proposals shall be subject to the provisions of the Development Plan.
	KLMDO5	● DO5 Development of this site shall provide for connectivity with the village centre. The layout of the development shall have regard to the impact on existing dwellings in terms of overlooking and shall not detract from the amenities of the area.
	KLMDO6	● DO6 The development of the site shall make provision for future access to the lands to the rear and provision shall also be made for pedestrian assess to the Village Green.
	KLMDO7	● DO7 Site to be reserved to allow for the future potential expansion of the school.
	KLMDO8	● DO8 It is an objective of the Council to facilitate the provision of a multi-use community building in Ballyduff village.
	KLMDO9	● DO9 Any residential development proposal shall ensure that intersite boundaries are densely landscaped to provide a semi-rural nature to the development.
	KLMDO10	● DO10 It is an objective of the Council to retain these existing trees which enhance the rural character of the village.
	KLMDO11	● DO11 It is an objective of the Council to improve the road and active travel links between Kilmeaden and Ballyduff Village along the L4020.
Lemybrien/ Killrossanty		
	LBKDO1	● DO1 The Council shall facilitate the provision of a new focal point to the Lemybrien village as the opportunity arises and shall seek to enhance the visual appearance of the main thoroughfare of the village.
	LBKDO2	● DO2 Development of the site shall provide a strong building line to the N25 and due regard shall be had to the visual impact of the development when viewed from the N25.
	LBKDO3	● DO3 It is an objective of the Council to support the development of Lemybrien/ Killrossanty as a gateway to the Comeragh Mountains amenity area.
	LBKDO5	● DO5 Retain lands located immediately to the northeast of the graveyard and between the graveyard and Kill Agricultural Services for expansion of the graveyard.
Knockanore		
	KNKDO1	● DO1 The Council shall facilitate the provision of a new focal point to village as the opportunity arises and shall seek to enhance the visual appearance of the main thoroughfare of the village.
	KNKDO2	● DO2 Development on the site shall not detract from the visual setting of the villages, particularly when viewed from the approach roads to the villages.
Melleray		
	MELDO1	●DO1 Please see PODO1 - PODO10.
Modeligo		
	MODDO1	●DO1 Please see PODO1 - PODO10.
Passage East/ Crooke		
	PECDO1	● DO1 It is an objective of the Council to support and facilitate the development of the Passage East harbour area and fishing industry.
	PECDO2	● DO2 It is an objective of the Council to support the Road Study undertaken in respect of the R683/R770/R733 Roads and to facilitate the redevelopment and appropriate relocation of the car ferry terminal.
	PECDO3	● DO3 It is an objective of the Council to protect the vistas and settings of protected structures in Passage East Village.

	PECDO4	● DO4 It is an objective of the Council to protect the character of the streetscape by the retention of vernacular houses and their facades such as those located on Beresford Row, Dobbins Street, Post Office Square, Barrack Street, Blynd Lane and Parade Square. Where appropriate the Council shall encourage the reinstatement of historically correct traditional features such as timber sliding sash windows.
	PECDO5	● DO5 It is an objective of the Council to protect the elements of Passage East's streetscape of architectural or historical value, by the retention of the rubblestone walls at White Wall, free-standing water pumps and post boxes, the Pier and the Quay as identified on the NIAH survey.
	PECDO6	● DO6 Development in this area shall be so designed so as to preserve integrity of the adjoining Scenic Route.
	PECDO7	● DO7 Development on the site shall not detract from the visual setting of the coastline.
	PECDO8	● DO8 The land to the immediate east of the Crooke GAA pitch shall be reserved for open space purposes.
	PECDO9	● DO9 It is an objective of the Council to facilitate the provision of a neighbourhood play area within Crooke village as the opportunity arises.
	PECDO10	● DO10 the development of these lands shall be designed so as to facilitate future vehicular access to adjacent lands to the east.
Piltown (Kinsalebeg)		
	PKDO1	● DO1 Development on the site shall address the public road in a sympathetic manner.
	PKDO2	● DO2 Development on the site shall not detract from the visual setting of the Youghal Estuary and shall retain future vehicular access to lands adjacent to the west.
	PKDO3	● DO3 Site to be reserved to allow for the future potential expansion of the school.
	PKDO4	● DO4 The flood plain of the Youghal Estuary shall be preserved free from development.
Rathgormack		
	RGDO1	● DO1 This site has the potential to be developed for village centre uses.
	RGDO2	● DO2 Development of the site shall provide for a strong building line to the main street of the village.
	RGDO3	● DO3 This site is suitable for infill housing development.
	RGDO4	● DO4 Any housing development proposal should aim to reflect the semi-rural nature of the setting, through suitable and appropriate landscaping and boundary treatments.
	RGDO5	● DO5 It is an objective of the Council to support the development of Rathgormuck as a gateway to the Comeragh Mountains area.
Stradbally		
	STDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the beach and enhance existing public walkways, parks and routes, particularly the public green area around the Square.
	STDO2	● DO2 It is an objective of the Council to retain the existing stone wall/ hedgerows etc on the southern approach to the village.
	STDO3	● DO3 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of rubblestone walls, handball alley, the free-standing water pump, as identified on the NIAH survey.
	STDO4	● DO4 It is an objective of the Council to retain original building features of vernacular structures such as those on Chapel Lane, the Square and Church Lane. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and slate roofs etc.
	STDO5	● DO5 It is an objective of the Council to facilitate and encourage the development of new industrial/employment units of a scale appropriate to the village on this site.
	STDO6	● DO6 Development proposals for residential housing on this site shall be required to have regard to the topography of the site, and have an appropriate/sympathetic approach to design which utilises the existing contours.
	STDO7	● DO7 Development on the site shall present a strong building line to the public road.
	STDO8	● DO8 As opportunities arise, the Council shall provide a new footpath/cycle path through the villages.
Tallow		
	TWDO1	● DO1 The site can accommodate a high quality mixed-use development. The Mill buildings (previously R&R mills) to the rear of site will have to be incorporated into any redevelopment of the site. The building line onto Main Street should be re-established and new access onto Convent Street should form part of any redevelopment proposal. A high degree of permeability through the site will be required.
	TWDO2	● DO2 The site has the potential to be redeveloped for mixed residential use. It is an objective of the Council to facilitate the redevelopment of this redundant site in an orderly and sustainable manner whilst retaining the architectural and historical character of the workhouse. Any development proposal shall be subject to best conservation principles.
	TWDO3	● DO3 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses such as those on West Street, Convent Street, Chapel Street and Main Street. Other features worthy of protection include rubblestone walls as identified on the NIAH survey.

	TWDO4	● DO4 It is an objective of the Council to retain original building features of vernacular structures such as shopfronts, timber sash windows and natural slate. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and shopfronts, etc.
	TWDO5	● DO5 It is an objective of the Council to retain the existing stone buildings and boundary walls which are a feature of the town.
	TWDO6	● DO6 The Council requires that any development on this site include details of pedestrian linkages, access, community/neighbourhood facilities, etc. Design shall include a mixture of house types, and a strong building line to the public road, with an emphasis on high quality design and finish.
	TWDO7	● DO7 It is an objective of the Council to facilitate and encourage residential development on this site as well as new employment uses, fire station and community creche units.
	TWDO8	● DO8 It is an objective of the Council to facilitate and encourage the development of new industrial/employment units of a scale appropriate to Tallow on this site.
	TWDO9	● DO9 To enhance public access to the banks of the Glenaboy River as a public amenity, to develop a public footpath along the river's edge and to carefully control development that might otherwise conflict with this objective.
	TWDO10	● DO10 It is the objective of the Council to preserve these lands for amenity use/ as a public open space.
	TWDO11	● DO11 It is the objective of the Council to support the continued development and use of these lands for active recreational purposes.
	TWDO12	● DO12 The development of the site on the R628 Road, west of Tallow town centre and north of MCG Kayaks, shall make provision for future access to the lands to the rear.
	TWDO13	● DO13 The Council would encourage proposals for low density residential/ serviced sites at this location as an alternative to one off housing in the open countryside.
Touraneena		
	TOURDO1	●DO1 Any development on the site shall not detract from the visual setting of the village, particularly when viewed from the approach roads to the village. Development at this location should have regard to the topography of the site, and proposed developments shall have an appropriate/sympathetic approach to design.
	TOURDO2	●DO2 It is an objective of the Council to ensure that development is phased to protect the village from inappropriately scaled residential development which would be out of character with the rural nature of the settlement. Development proposals will be subject to the provisions of the Development Plan.
Villierstown		
	VTDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the river bank and enhance existing public walkways, riverside parks and routes subject to compliance with Articles 6 and 10 of the Habitats Directive and ensuring no negative impact on the integrity of the River Blackwater SAC.
	VTDO2	● DO2 It is an objective of the Council to retain the existing stone wall/ hedgerows on the approaches to and through the village.
	VTDO3	● DO3 Site to be reserved to allow for the future potential expansion of the school.
	VTDO4	● DO4 Site to be reserved for open space and shall be suitably landscaped as the opportunity arises.
	VTDO5	● DO5 Any development proposal of this area will be required to have regard to the historic character of Villierstown, and shall have a sympathetic approach to design which provides a strong building line with the Main Street. Access shall be provided from the Main Street.
	VTDO6	● DO6 Development of this back land area shall not detract from the visual setting of the Main Street and shall provide for a safe vehicular access to the site.
	VTDO7	● DO7 Development on the site shall address the open space along the public road and shall not detract from the visual setting of this green space. A single vehicular access shall be provided.
	VTDO8	● DO8 Any proposed development design proposal for this site shall include a strong building line to the public road, with an emphasis on high quality design and finishes.
	VTDO9	● DO9 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses on The Green and Main Street. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows.
	VTDO10	● DO10 It is an objective of the Council to retain original vernacular features such as free standing water pumps, the pier, and rubblestone walls as identified by the NIAH survey etc.
Dunmore East		
	DMDO1	● DO1 It is an objective of the Council to facilitate and encourage the development of commercial/retail development within the village centre and at the neighbourhood centre of a scale and use appropriate to that location.
	DMDO2	● DO2 It is an objective of the Council to protect and promote the amenity and pedestrian access to the beach and enhance/provide public walkways, parks and routes.
	DMDO3	● DO3 It is an objective of the Council to provide traffic calming, footpath improvements and public lighting on the L4202 Road as the opportunity arises.
	DMDO4	● DO4 It is an objective of the Council to preserve the coastal views and vistas in the village.
	DMDO5	● DO5 It is the policy of the Council to retain historical architectural design features in the village such as traditional thatch cottages and fenestration, etc. Any new build development shall respect the special character and built heritage of Dunmore East.
	DMDO6	● DO6 Development proposed on this site shall be required to have regard to the topography of the site, and shall have an appropriate/sympathetic approach to design which utilises the existing contours and respects the established pattern of development in the vicinity.

	DMDO7	● DO7 Any design proposal shall include a strong building line to the public road, with an emphasis on high quality design and finishes.
	DMDO8	● DO8 It is an objective of the Council to support the development of the harbour area for tourism/ leisure and commercial uses including the provision of a boating marina whilst also facilitating the development of the fishing industry. The Council will support the development of a new breakwater and port.
	DMDO9	● DO9 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses such as those on Wellington Terrace, Glenville Terrace, Curraghmore Terrace, Emerald Terrace and Queen's Terrace. Other features worthy of protection include rubblestone walls, free-standing water pumps and post boxes as identified on the NIAH survey.
	DMDO10	● DO10 – Horse Quarter Road Junction – It is an objective of the Council to improve the layout of this junction which will include an appropriately designed roundabout, associated traffic calming measures and footpath improvements.
	DMDO11	● DO11 It is an objective of the Council to work in collaboration with Dunmore East Woodland Trust and relevant landowners to enhance access to this important public amenity across Dunmore East.
	DMDO12	● DO12 Future development in the vicinity of the golf club shall provide for a mix of tourism accommodation types, additional tourism attraction/amenities and be accessed via the private road leading to Killea. The proposed development should avoid any adverse impact on the visual, natural, and other amenities of the area.
	DMDO13	● DO13 Development on these lands should protect the visual amenities of the area and enhance the access to the village for pedestrians through the neighbouring woodland. All vehicular access shall be via an improved roadway form the Killea Road at the Fairways.
	DMDO14	● DO14 Residential development on these lands shall provide significant screen planting between housing area and the existing cliff walk between Dunmore East and Portally Cove prior to the occupation of any permitted development.
	DMDO15	● DO15 – Circular Road – New residential lands to the south Circular Road L8074 may facilitate Low Density Residential Development/ Serviced Sites.
	DMDO16	● DO16 Development of the lands neighbouring the Waterford to Dunmore East Road R 684 at Knockacurrin shall ensure that a 10m buffer of open space is maintained between the boundary of the flood zone and any new land uses.
Lismore		
	LMDO1	● DO1 To provide for an East/ West Connector Road to the South of the Town.
	LMDO2	● DO2 To continue to provide for the proposed Cappoquin/ Lismore bypass to the south of the Town, and to preserve the lands in the vicinity of the indicated route of the bypass.
	LMDO3	● DO3 To ensure that the Monument is afforded adequate protection from traffic in any further upgrading of the Monument Junction.
	LMDO4	● DO4 Require planning applications for residential, commercial, retail, community, educational and industrial developments to demonstrate the proposal's accessibility for pedestrians and cyclists. The Council will also seek the provision of appropriate, well-designed pedestrian ways for residential development proposals to link with amenities and facilities. Development proposals will be subject to the provisions of the Development Plan.
	LMDO5	● DO5 Protect, where appropriate, elements of the streetscape such as rubblestone boundary walls, stone depots, free-standing water pumps and spouts, and elements of street furniture as identified on NIAH survey and street furniture any of which make a positive contribution to the built heritage.
	LMDO6	● DO6 To retain, where appropriate, original building features of vernacular structures such as the workers" houses, timber sash windows, horizontal side sash windows, decorative barge boards, rooflines and shop fronts. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and shop fronts etc.
	LMDO7	● DO7 It is an objective of the Council to facilitate the redevelopment of the workhouse site in an orderly and sustainable manner whilst retaining the architectural and historical character of the workhouse. Any development proposal shall have due regard to the designation of the workhouse and its curtilage as a Protected Structure and as such will be subject to Best Conservation Principles.
	LMDO8	● DO8 It is an objective of the Council to retain and enhance, where appropriate, the existing rubblestone walls, hedgerows and mature trees which form an intrinsic part of Lismore's built heritage especially on the approach to the Town.
	LMDO9	● DO9 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention, where appropriate, of vernacular houses such as those on Church Lane, Main Street, Chapel Place and Chapel Street.
	LMDO10	● DO10 It is the objective of the Council to improve walking and cycling access across the Bridge linking Lismore with Ballyrafter.
Portlaw		
	PLDO1	● DO1 To investigate the extension of the footpath network to facilitate the sporting facilities on the outskirts of the Town during the Plan period.
	PLDO2	● DO2 Require planning applications for residential, commercial, retail, community, educational and industrial developments to demonstrate the proposal's accessibility for pedestrians and cyclists. The Council will also seek the provision of appropriate, well-designed pedestrian ways for residential development proposals to link with amenities and facilities. Development proposals will be subject to the provisions of the Development Plan.
	PLDO3	● DO3 To promote the improvement of water quality in the River Clodiagh in accordance with the provisions of the Water Framework Directive and ensure that all developments are provided with satisfactory drainage systems in the interests of public health and the avoidance of pollution of ground and surface water.

	PLDO4	● DO4 To protect trees and hedgerows in all new developments, particularly species rich roadside and townland boundary hedgerows and seek their replacement with new trees and hedgerows with native species of local provenance where their removal is necessary during the course of road works or other works. There will be a presumption against the removal of trees and hedgerows where there is a realistic alternative.
	PLDO5	● DO5 To retain, where appropriate, original building features of vernacular structures such as barrel-shape roofs of the workers houses, timber sash windows, decorative barge boards and shop fronts. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and shop fronts etc.
	PLDO6	● DO6 It is an objective of the Council to retain, where appropriate, the existing stone walls, canal banks, hedgerows and mature trees on the approach to and within the Town.
	PLDO7	● DO7 It is an objective of the Council to facilitate the redevelopment of the Cotton Factory/ Tannery Complex and Mayfield House site in an orderly and sustainable manner whilst retaining the architectural and historical character of the structures. Any development proposal shall have due regard to the designation of the Cotton Factory/ Tannery Complex and Mayfield House and their curtilage as Protected Structures and as such will be subject to Best Conservation Principles.
	PLDO8	● DO8 To ensure protection of the River Clodiagh SAC no development will be permitted within the boundary of the designated site.
	PLDO9	● DO9 To facilitate and support the provision of a new footpath to link the town centre to the St. Patricks Church and Curraghmore Estate.
Gaeltacht na nDéise		
	GDDO1	● DO1 It is an objective of the Council to protect and promote the linguistic heritage of the Gaeltacht through the use of occupancy conditions restricting the sale or occupation of dwellings to those who have demonstrated reasonable fluency of the Irish language and/or person's native to the Gaeltacht.
	GDDO2	● DO2 It is an objective of the Council to facilitate and encourage the development of new employment units of a scale appropriate to the village on this site to promote the economic development of the Gaeltacht. Regard shall be had to the potential impact of development on adjoining residential areas.
	GDDO3	● DO3 It is an objective of the Council to facilitate and encourage the development of new employment units at a scale appropriate to the village on this site and to promote the economic development of the Gaeltacht.
	GDDO4	● DO4 Site to be reserved to allow for the future potential expansion of the school.
	GDDO5	● DO5 It is an objective of the Council to support the development of fishing and tourism related activity at Heilbhic harbour.
	GDDO6	● DO6 It is an objective of the Council to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses at Helvick such as the Coastguard's Cottages, rubblestone walls, free-standing water pumps, post boxes and quay walls as identified on the NIAH survey.
	GDDO7	● DO7 Site to be reserved to allow for the future potential expansion of the school/graveyard.
	GDDO8	● DO8 – An Rinn - New residential development shall be accompanied by developer provided public lighting, footpath and junction alignment works to link the new development the existing footpath on Church Road prior to occupation of any dwelling houses.
Tramore		
	TRDO1	● DO1 Require planning applications for residential, commercial, retail, community, educational and industrial developments to demonstrate the proposal's accessibility for pedestrians and cyclists. The Council will also seek the provision of appropriate, well-designed pedestrian ways for residential development proposals to link with amenities and facilities. Development proposals will be subject to the provisions of the Development Plan.
	TRDO2	● DO2 The Council is committed to the redevelopment of the boating lake area to a Town Park over the lifetime of the Plan.
	TRDO3	● DO3 To support the diversification of a range of a tourist facilities, accommodation and attractions through the area, while protecting the surrounding natural environment of Tramore.
	TRDO4	● DO4 To comply with Article 6 of the Habitats Directive to ensure that there is no significant adverse impact of development on the integrity of the Tramore Dunes and Back Strand SAC and SPA and that the requirements of Articles 6(3) and 6(4) of the Habitats Directive are fully satisfied by screening all projects and plans for Appropriate Assessment.
	TRDO5	● DO5 To retain, where appropriate, original building features of vernacular structures such as the timber sash windows, the Victorian doorways, rooflines, low parapets and remains of shop fronts. Where appropriate, the Council shall encourage the reinstatement of historically correct traditional features such as sliding sash windows and shop fronts etc.
	TRDO6	● DO6 To support the development of a new public park off the ring road in Tramore.
	TRDO7	● DO7 As opportunities arise we will support the provision of recreational/community facilities on this site at Monvoy.
	TRDO8	● DO8 To support the development of an Indoor and outdoor performance space in Tramore in support of culture and tourism.
	TRDO9	● DO9 To support the redevelopment of the former station house in Tramore and its curtilage for community and commercial purposes.
	TRDO10	● DO10 To support the enhancement of spaces such as the promenade and lower promenade in Tramore.
	TRDO11	● DO11 To support the development of a coastal path particularly between Dungarvan and Tramore.

	TRDO12	● DO12 To support the development of a Green Ring Route around Tramore that links existing and proposed sites of biodiversity or natural amenity and develop extensions from this route as opportunities arise such as connecting the Glen Road to Monvoy Valley and the Garraun Stream to the Backstrand. Any such connections would be subject to appropriate environmental assessment. The route will follow, paths, cycle paths and roads already in place and includes suggestions for new safe and sustainable transport routes (Indicative route set out in Transport Map 3 however this will be addressed in more detail through the Local Transport Plan for Tramore).
	TRDO13	● DO13 – Tramore Golf Club – Community Infrastructure lands to the west of the Tramore Ring Road R675 and north of the Golf Club Entrance may facilitate the development of a retirement village scheme.
	TRDO14	● DO14 Development of these lands at Pickardstown shall be for commercial uses only with residential use excluded. Given the shape and form of land within the zoning objective, it is likely that onsite mitigation could be provided, and if not, then development will be restricted to Flood Zone C.
	TRDO15	● DO15 Development of the CI zoned lands at the Golf Club shall ensure that a 10m buffer of open space is maintained between the boundary of the flood zone and any new land uses.
Dungarvan		
	DGDO1	● DO1 It is an objective of the Council to protect and promote the amenity and pedestrian access to the River Colligan and enhance/provide public walkways, riverside parks and routes. As the opportunity arises, the Council will develop a linear walkway along the Colligan estuary.
	DGDO2	● DO2 The flood plain of the River Colligan shall be preserved free from development.
	DGDO3	● DO3 It is an objective of the Council to protect the Cunnigar as a natural amenity area and restrict development which would alter its character.
	DGDO4	● DO4 Development in Dungarvan shall take place in a sequential manner, with sites closest to Dungarvan town being developed first.
	DGDO5	● DO5 It is an objective of the Council to facilitate and encourage the development of new industrial/employment units on this site.
	DGDO6	● DO6 As the opportunities arise the Council shall provide a footpath/cycle-path, public lighting and traffic calming on the L3012 Road to connect Ballinroad Village with Garranbane National School and along the L3011 linking Ballinroad with the Waterford Greenway. The connection of Ballinroad Village with Garranbane National School through Active Travel measures is a priority of the Development Plan.
	DGDO7	● DO7 It is an objective of the Council to facilitate the development of community facilities within Ballinroad village, particularly the provision of a multi-use community building.
	DGDO8	● DO8 It is the objective of the Council to provide neighbourhood play areas as opportunities arise.
	DGDO9	● DO9 It is an objective to facilitate future expansion of the soccer pitch.
	DGDO10	● DO10 It is the objective of the Council to upgrade The Spring Roundabout to accommodate increased carrying capacity and also provide a safe permeability through the junction for active modes of transport.
	DGDO11	● DO11 To support the development of community hall facility with meeting rooms for clubs/societies in Dungarvan.
	DGDO12	● DO12 To support the redevelopment of the former landfill in Ballinamuck, Dungarvan into a nature park.
	DGDO13	● DO13 To support the development of a public playground and sports facilities/playing pitches in Ballinroad.
	DGDO14	● DO14 Support the development of a coastal path particularly between Dungarvan and Tramore and west of Dungarvan to Gaeltacht na nDéise.
	DGDO15	● DO15 The development of the lands at Páirc na gCapall will be informed by a masterplan for the entire landholding to be agreed in writing with the planning authority, providing for appropriate housing phasing, mix and layout, an infrastructure and service delivery plan, enhanced access to Dungarvan town centre, augmentation of biodiversity value across the lands and incorporation of the former line of the railway and masonry bridge for active transport modes across the site as part of broader amenity strategy and provision of lands for a future school campus.
	DGDO16	● DO16 It is an objective to provide for Traveller Accommodation on lands at Shandon.
	DGDO17	● DO17 To facilitate and support the development of a new sustainable 25m community swimming pool facilities in Dungarvan/West Waterford Region, to achieve maximum accessibility to the residents of Waterford, including the integration with and development of existing associated sports facilities, accompanied by appropriate infrastructure.
	DGDO18	● DO18 Promote and facilitate enhanced active travel infrastructure across and within the Duckspool area from the Clonea Road to Scoil Garabhain, St. Augustine's College and the GAA grounds in addition to new vehicular access from Friary College Road to the GAA grounds.
	DGDO19	● DO19 – Ballinacourty – This development of tourism lands in Ballinacourty shall provide a new vehicular access road linking the site with the L3011 Clonea Strand Road to the north.
	DGDO20	● DO20 – Ballinroad – Lands zoned for new residential development in Ballinroad may facilitate Low Density Residential Development/ Serviced Sites.
	DGDO21	● DO21 – Duckspool – The land to the east of the Abbeyside GAA pitch shall be reserved for future expansion of the existing facilities.

Waterford City		
	WCDO1	● DO1 Provision of accessible open space/ public park to service the Dunmore Road/ Williamstown Road area of Waterford City.
	WCDO2	● DO2 To support the animation of the South Quays to identify possible bespoke uses such as the utilising of the former port crane structure as part of new master plan for the south quays.
	WCDO3	● DO3 To support the enhancement of the open space along city streets and public parks/areas such as Manor Street, Mayors Walk, O'Connell Street, Wyse Park, Ballybricken, The Glen, along the city walls and other public spaces, North and South Quays, Spring Garden, Jenkins Lane and throughout the city when reconfiguration of street uses and traffic movement presents opportunities for biodiversity and public realm enhancement.
	WCDO4	● DO4 To support biodiversity enhancement along the John's River walkway/cycleway.
	WCDO5	● DO5 To enhance safety and amenity for cyclists and pedestrians on Williamstown Road, Dunmore Road, in and around all our schools and across the city centre and main traffic routes/junctions/roundabouts.
	WCDO6	● DO6 To support the provision of a River Suir walkway/cycleway from Canada Street to Blenheim along the river Suir linking to housing areas on the Dunmore Road.
	WCDO7	● DO7 To support a revised traffic plan for Wilkin Street.
	WCDO8	● DO8 To support and facilitate increased access for boats and kayaks on the River Suir estuary by slipways.
	WCDO9	● DO9 To support the development of The Woodstown Viking site as a significant tourist attraction subject to appropriate heritage and environmental considerations.
	WCDO10	● DO10 To support the development of new primary /secondary schools in the Kilbarry/Carrickpherish areas.
	WCDO11	● DO11 To support the development of a Blue Way to be established connecting Cheekpoint/ Ballygunner.
	WCDO12	● DO12 To support the use of the Old Red Iron Railway Bridge as a biodiversity and active travel link to South Kilkenny and Ferrybank.
	WCDO13	● DO13 It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter.
	WCDO14	● DO14 To support and promote the development of the Airport business and enterprise zone.
	WCDO15	● DO15 To support the provision of an off-road cycle and walk way should be developed between Waterford and Tramore.
	WCDO16	● DO16 To support the development of universally accessible public playgrounds and outdoor gyms where needed e.g. Ballybricken, Hillview, Wyse Park, Gracedieu Rd and Carrickphierish.
	WCDO17	● DO17 To support the sustainable development of Mount Congreve Estate and Gardens as a major tourism assets for Waterford City and the South East Region.
	WCDO18	● DO18 It is an objective to provide for Traveller Accommodation on lands at Bilberry, Williamstown, the Green Road, Carrickphierish and Kilbarry.
	WCDO19	● DO19 – Couse Stream - The landscaping and provision of open space for the development of new residential areas shall provide for the following: Incorporating the Couse Stream as a central element in public open space and ensure habitat restoration along the length of the watercourse, c. 2 ha of usable open space and habitat areas to be provided across new housing areas to include enhanced tree planting and permeable active travel routes for cyclists/pedestrians along the boundary with the outer ring road and links between the new housing and existing housing areas.
	WCDO20	● DO20 – Williamstown – The development of these lands will be subject to the preparation of a more detailed integrated masterplan for the landholding and the adjacent golf club in consultation with the Planning Authority prior to any development progressing. Any such masterplan should identify how the proposal will be incorporated into the broader recreation and open space strategy referred to in policy objective W City 19 and support the Waterford Decarbonising Zone in policy objective W City 20.
	WCDO21	● DO21 – Kilbarry Bog pNHA – We will seek to enhance the viability of this wetland habitat by directing surface water runoff from development on neighbouring lands into the wetland and ensure that where development takes place on adjoining lands that an appropriate buffer is provided for to prevent disturbance and encroachment into the habitat.
	WCDO22	● DO22 – Carrickphierish – The future development of lands bounded by the Carrickphierish Road, Knockhouse Road, Butterfield and Mount Suir Manor apartments will be informed by a masterplan for the entirety of the undeveloped lands to be prepared by the developer(s) in consultation with the planning authority.
	WCDO23	● DO23 – Former Katie Reilly's, Tramore Road – It is an objective of the Council to support the redevelopment of these lands and those immediately adjacent for tourism and ancillary uses in addition to possible future connection to the extended Waterford Greenway link to Tramore.
	WCDO24	● DO24 – Carrickphierish/ Knockhouse – It is an objective of the Council to support the provision of an access road between the Carrickphierish Road L1524 and the Knockhouse Road L5507 to the west of Mountneil.
	WCDO25	● DO25 – Carrickphierish – New residential lands to the southeast and southwest of the junction of the Carrickphierish Road L1524 and Knockhouse Road L 5507 may facilitate Low Density Residential Development/ Serviced Sites.
	WCDO26	● DO26 – Kilbarry – Sections of new residential lands (Phase 1 & Phase 2) to the east of the Lacken Road L5522 and which are in close proximity to Kilbarry Bog pNHA may facilitate Low Density Residential Development/ Serviced Sites.
	WCDO27	● DO27 – Ballinakill – New residential lands to the east of Kings Channel Estate (Island Land Cul-De Sac) Local Road L55289 and north of Ballinakill Crescent Local Road L 55285 may facilitate Low Density Residential Development/ Serviced Sites.
	WCDO28	● DO28 – Ballygunner/ Williamstown – To support the development of a new public park to the southwest of the Knockboy Junction (Monamintra Crossroads) at Ballygunner.
	WCDO29	● DO29 – Knockboy – To ensure any development on this site provides for a Green Infrastructure (GI) link which connects the area of open space to the west of the Knockboy Road L5529 with the amenity zoned lands north of the River Cottage.

	WCDO30	● DO30 – Knockboy – Sections of new residential lands to the north of the Dunmore Road R683 at the River Cottage can facilitate Low Density Residential Development/ Serviced Sites.
	WCDO31	● DO31 – Cumann na mBan Ring Road (R710) – To ensure that development proposals located in close proximity to the R710 Cumann na mBan road makes provision for a Green Infrastructure (GI) link/ buffer to connect the Waterford Greenway at Carriganore to Kings Channel.

Appendix 3

Waterford Housing Strategy and Housing Strategy and Housing Need Demand Assessment

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Deloitte.

Housing Strategy and Housing Need Demand Assessment

Waterford City & County Council

November 2021

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1.0 Introduction

1.0 Introduction

Part V, Section 94 of the Planning and Development Act, 2000 (as amended) requires planning authorities to include in its development plan a Housing Strategy for the purpose of ensuring that the proper planning and sustainable development of the area provides for the housing of the existing and future population of the area. This Housing Strategy has been prepared on behalf of Waterford City & County Council to meet the statutory requirements set out under the Act. The Housing Strategy also addresses relevant provisions contained within the Housing (Miscellaneous Provision) Act, 2009 and the Urban Regeneration and Housing Act 2015.

The Housing Strategy is a critical component of the County Development Plan (CDP) and assists in translating national housing policies and housing supply responses to the local level. The Housing Strategy informs the policies and objectives of the CDP, and provides details in relation to housing requirements including types, sizes and tenures.

Waterford City & County Council was established following the amalgamation of Waterford City Council and Waterford County Council on the 1st June 2014. The three existing development plans within the amalgamated Council area, Waterford City Development Plan 2013 – 2019, Waterford County Development Plan 2011 – 2017, & the Dungarvan Town Development Plan 2012 – 2018, are replaced by this new City and County Development Plan.

The Housing Strategy has taken cognisance of significant recent changes in national and regional planning policy, notably the publication of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Regional Assembly area.

This Housing Strategy includes the determination of housing requirements in County Waterford over the period of the development plan 2022-2028. Demographic, economic and social inputs have been examined and utilised to estimate projected population, households and associated housing needs in County Waterford.

The NPF has introduced the requirement for a Housing Need Demand Assessment (HNDA) under National Policy Objective 37 in order *'to correlate and accurately align future housing requirements'.* The HNDA contained herein has been prepared with regard to guidance within the NPF and population and housing demand data provided in the NPF Implementation Roadmap, Ministerial Circulars and Section 28 guidelines. The NPF notes the HDNA should '*primarily inform housing policies, housing strategies and associated land use zoning policies as well as assisting in determining where new policy areas or investment programmes are to be developed'.* In addition, Circular Letter Housing 14/2021 was issued on the 14th of April 2021 and accompanies a suite of documents providing updated guidance on Housing Need Demand Assessment.

The HDNA provides the evidence base to inform decision-making around the current and future housing supply within the county, examining trends in population, house prices and rental prices and calculating affordability for different housing tenures including private market purchase and private rental. The HDNA also arrives at a projected social housing need based on the consideration of affordability outlined above.

1.1 Methodology

The NPF indicates the purpose of the HNDA tool is to:

- *'Assist local authorities to develop long-term strategic views of housing need across all tenures.*
- *Provide a robust evidence base to support decisions about new housing supply, wider investment and housing related services that inform an overall national housing profile.*
- *Inform policies about the proportion of social and affordable housing required, including the need for different types and sizes of provision.*
- *Provide evidence to inform policies related to the provision of specialist housing and housing related services'.*

The NPF further defines the HDNA as a database which allows local authorities to run a number of different scenarios to inform key decisions on housing need and supply, and are designed to give broad, long run estimates of what future housing need might be, rather than precision estimates.

The NPF lists the following key evidence inputs that will inform and drive the HDNA model, based around:

1. *Demographic trends, affordability trends and wider economic trends.*
2. *Housing Stock Profile Pressures, existing need and management issues*
3. *Estimate future housing need and demand.*

The HNDA is structured through a number of stages which project and determine the future housing requirements to cover the plan period. The components considered include projected demographic and household data to understand future housing need in the county over the plan period.

The next component undertakes an assessment of housing affordability, considering house price data and the ability of households to access private market ownership or private market rental. This assessment leads to the identification of social and affordable housing needs in Waterford during the plan period.

1.2 Structure

Section 1 introduces the Housing Strategy and the HNDA process, outlining the policy framework and key objectives and purposes. It also discusses the HDNA methodology used to project future housing requirements over the plan period.

Section 2 analyses the legislative and policy framework relevant to Housing Strategies and Housing Need Demand Assessment.

Section 3 provides an overview of the existing housing context utilising demographic and housing data from the CSO, Daft, the Residential Tenancies Board and the Property Price Register. It also reviews data from Waterford City and County Council on unfinished housing estates and planning permissions to further interrogate the local context in Waterford.

Section 4 analyses housing requirements in County Waterford building upon Section 3 which provided the local housing context to be considered. This section projects and determines the housing need

and supply over the 2022-2028 development plan period through a number of sequential stages outlined in greater detail in Section 4.

Section 5 summarises the overall housing requirements for the county having regard to the supply and demand analysis outputs determined in the preceding sections.

Section 6 concludes with the findings of the Housing Strategy and HNDA.

2.0 Planning Policy and Legislative Framework

2.0 Planning Policy and Legislative Framework

A comprehensive review of all relevant national, regional and local housing and associated planning legislation, policies and plans has been carried out and discussed herein as they relate to the Housing Strategy. This includes the following:

National Legislation and Policy

- The Planning and Development Act, 2000 (as amended)
- Planning and Development (Amendment) (No. 2) Regulations 2018
- National Planning Framework (NPF) (Project Ireland 2040)
- Implementation Roadmap for the National Planning Framework (NPF)
- Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020)
- Circular Letter Housing 14/2021 - Re: Housing Need and Demand Assessment (HNDA)
- Guidance on the Preparation of a Housing Need and Demand Assessment
- National Development Plan 2018-2027 (NDP) (Project Ireland 2040)
- Rebuilding Ireland – Action Plan for Housing and Homelessness (2016)
- Housing For All (2021) / Programme for Government: Our Shared Future (2020)
- National Vacant Housing Reuse Strategy 2018-2021
- Social Housing Strategy 2020
- Urban Regeneration and Housing Act 2015
- National Housing Strategy for People with a Disability (2011-2016)
- Design Standards for New Apartments - Guidelines for Planning Authorities (2020)

Regional Policy

- Regional Spatial and Economic Strategy for the Southern Region

Local Policy

- Waterford County Council - Traveller Accommodation Programme 2019-2024
- Waterford Age Friendly Alliance Strategy 2017-2022

2.1 National Legislation and Policy

Planning and Development Act, 2000

Section 94 of Part V of the Planning & Development Act 2000 as amended (the Act) requires the inclusion in a development plan of a housing strategy for the purposes of ensuring that the proper planning and sustainable development of the area of the development plan provides for the housing of the existing and future population of the area.

Part V, Section 94 of the Planning and Development Act, 2000 (as amended) requires planning authorities to include in its development plan a Housing Strategy for the purpose of ensuring that the proper planning and sustainable development of the area provides for the housing of the existing and future population of the area.

Section 94 (3) states that a housing strategy shall take into account:

a) the existing need and the likely future need for housing,
b) the need to ensure that housing is available for persons who have different levels of income,
c) the need to ensure that a mixture of house types and sizes is developed to reasonably match the requirements of the different categories of households, including the special requirements of elderly persons and persons with disabilities,
d) the need to counteract undue segregation in housing between persons of different social backgrounds.

Section 94 (4) states that a housing strategy shall include an estimate of the amount of:

- Housing for the purposes of the provision of social housing support within the meaning of the Housing (Miscellaneous Provisions) Act 2009, and
- Affordable housing that will be required within the county during the period of the plan.

Section 94 (5) (a) states that when making these estimates, the planning authority shall have regard to the following:

I. the supply of and demand for houses generally, or houses of a particular class or classes, in the whole or part of the area of the development plan;
II. the price of houses generally, or houses of a particular class or classes, in the whole or part of the area of the development plan;
III. the income of persons generally or of a particular class or classes of person who require houses in the area of the development plan;
IV. the rates of interest on mortgages for house purchase;
V. the relationship between the price of housing, incomes and rates of interest for the purpose of establishing the affordability of houses in the area of the development plan,
VI. such other matters as the planning authority considers appropriate.

Planning and Development (Amendment) (No. 2) Regulations 2018

This amendment to the Planning and Development Regulations allows for the temporary change of use of some vacant commercial premises to residential use as exempt development (subject to conditions and limitations). Development shall not exceed the provision of more than 9 residential units in any structure. The change of use, and any related works, must occur between when the Regulations come into operation on 8 February 2018 and 31 December 2021.

In addition, the existing structure or part of the structure, which is the subject of the change of use, is required to be vacant for a period of two years immediately prior to when the development takes place. The exemption applies to existing buildings that have a current commercial use (Class 1, 2, 3, and 6 of Part 4 to Schedule 2).

Project Ireland 2040 - National Planning Framework (NPF) (2018)

The National Planning Framework (NPF) is a high-level strategy that will shape growth and development in Ireland out to the year 2040. The NPF introduces the requirement for a Housing Need Demand Assessment (HNDA), referred to under National Policy Objective 20 and 37, in order to '*ensure that the plan-making system is supported by a robust methodology to inform policies and funding initiatives around housing and associated land requirements'.* The HNDA is to be developed by each Local Authority to support the preparation of housing strategies and city and county development plans, local area plans, traveller accommodation plans etc.

National Policy Objective 20 states:

'Project the need for single housing in the countryside through the local authority's overall Housing Need Demand Assessment (HNDA) tool and county development plan core strategy processes'.

National Policy Objective 37 states:

'A 'Housing Need Demand Assessment' (HNDA) is to be undertaken for each Local Authority Area in order to correlate and accurately align future housing requirements. The HNDA is:

- *to be undertaken by Local Authorities with coordination assistance to be provided by the Regional Assemblies, and at a Metropolitan scale, particularly where inter-county and inter-regional settlement interactions are to be planned for and managed;*
- *to primarily inform housing policies, housing strategies and associated land use zoning policies as well as assisting in determining where new policy areas or investment programmes are to be developed; and*
- *to be supported, through the establishment of a coordination and monitoring unit to assist Local Authorities and Regional Assemblies in the development of the HNDA (DHPLG, Regional Assemblies and the Local Authorities). This will involve developing and coordinating a centralised spatial database for Local Authority Housing data that supports the HNDA being undertaken by Local Authorities'.*

National Policy Objective 36 of the NPF confirms the importance of an integrated approach to population and housing in the planning system, and refers to Section 28 guidelines to be provided in this regard:

'*New statutory guidelines, supported by wider methodologies and data sources, will be put in place under Section 28 of the Planning and Development Act to improve the evidence base, effectiveness and consistency of the planning process for housing provision at regional, metropolitan and local authority levels. This will be supported by the provision of standardised requirements by regulation for the recording of planning and housing data by the local authorities in order to provide a consistent and robust evidence base for housing policy formulation'.*

In relation to the demand for single housing in the countryside, the NFP notes the relationship between the core strategy of county development plans and the local authority's overall Housing Need Demand Assessment (HNDA) and states that quantifying *'the need for single housing on an evidence basis will assist in supporting the preparation of a comprehensive housing strategy and associated land use policies'.*

The NPF indicates the purpose of the HNDA tool is to:

- *'Assist local authorities to develop long-term strategic views of housing need across all tenures.*
- *Provide a robust evidence base to support decisions about new housing supply, wider investment and housing related services that inform an overall national housing profile.*
- *Inform policies about the proportion of social and affordable housing required, including the need for different types and sizes of provision.*
- *Provide evidence to inform policies related to the provision of specialist housing and housing related services'.*

The NPF further defines the HDNA as a database which allows local authorities to run a number of different scenarios to inform key decisions on housing need and supply, and are designed to give broad, long run estimates of what future housing need might be, rather than precision estimates.

The NPF lists the following key evidence inputs that will inform and drive the HDNA model, based around:

'1. Demographic trends, affordability trends and wider economic trends.

The use of economic forecasting or econometric work underpins this section. Data requirements include household composition/projections, house prices, rents, number of first time buyers (FTBs) and loan to value (LTV) mortgage rates, economic activity and employment rates etc.

2. Housing Stock Profile Pressures, existing need and management issues

Housing Stock Profile Pressures (and existing need) and management issues. Undertaking a detailed profile of local housing stock and stock pressures, including local authority housing, to identify the main pressures relating to supply and demand, ineffective stock and overall condition as well as priorities for future stock management. Information is required on dwelling size, dwelling type, dwelling condition and stock pressures (occupancy/under occupancy stock turnover etc.).

3. Estimate future housing need and demand.

This is broken down into: owner occupation, private sector, below market rent and social rent. Detailed guidance is provided on how to undertake this work, including how and on what evidence to base assumptions on wealth affordability, both in terms of home ownership and the different rental categories'.

The NPF adopts a growth scenario referred to as 'regional parity' and accordingly sets out a growth objective under National Policy Objective 1a that '*the projected level of population and employment growth in the Eastern and Midland Regional Assembly area will be at least matched by that of the Northern and Western and Southern Regional Assembly areas combined'.*

In relation to the cities, the NPF notes it supports ambitious growth targets to enable the four cities of Cork, Limerick, Galway and Waterford to each grow by at least 50% to 2040 and to enhance their significant potential to become cities of scale.

In relation to Waterford the NPF states:
'Waterford is the principal urban centre in Ireland's south-east and is unique in having a network of large and strong regional urban centres in close proximity within each of the surrounding counties that both complement the role of Waterford and perform strong regional and local economic and developmental roles for their own areas'.

National Policy Objective 3b states: '*Deliver at least half (50%) of all new homes that are targeted in the five Cities and suburbs of Dublin, Cork, Limerick, Galway and Waterford, within their existing built-up footprints'.*

The NPF sets out a growth strategy that has a particular focus on the five cities and regional growth centres as set out in National Policy Objective 7, which refers to strengthening Ireland's overall urban structure. National Policy Objective 8 sets out the Minimum Target Population for Waterford City and Suburbs by 2040 of 81,000 (population in 2016 was 54,000). The NPF notes that Waterford City has 20,298 resident workers, with a jobs to resident workers ratio of 1.201.

Implementation Roadmap for the National Planning Framework (2018)

The Implementation Roadmap for the National Planning Framework published in July 2018 provides transitional population projections as a range for each county. The roadmap notes that '*the transitional population projections plot a growth trajectory set approximately mid-way between what is currently being planned for in statutory Development Plans if projected forward to 2031, and the more likely evidence based and nationally coherent projected scenario to 2031 and 2040. These 'adjusted' transitional figures will apply to 2026 and will also inform the period to 2031'.*

The Roadmap states that *'scope for headroom, not exceeding 25%, can be considered to 2026 in those counties where projected population growth is projected to be at or above the national average baseline'*. The Roadmap lists County Waterford as one of these counties. County Waterford is provided with a population range of 132,000 -135,000 up to 2026, and 137,000 - 144,000 to 2031.

South-East	2016	2026	2031
Waterford	116,000	132,000-135,000	137,000-144,000
Wexford	149,000	163,000-166,000	169,000-172,500
Kilkenny	99,000	108,000-110,000	112,000-114,500
Tipperary SR	88,500	96,000-98,000	99,500-102,000
Carlow	57,000	62,000-63,000	64,000-65,500
Subtotal	509,500	561,000-572,000	581,500-598,500

Table 2.1: Transitional Regional and County Population Projections to 2031 (Source: Implementation Roadmap for the National Planning Framework, 2018).

The roadmap further refers to the role of the '*initial Regional Strategies to set the parameters for City and County Development Plans to be approved during 2021/22, to cover the period to 2026/27*'.

The NPF Implementation Roadmap also notes that the boundary of the Waterford Metropolitan Area was defined '*using a methodology that was developed having regard to similar considerations to those for Dublin and Cork, as well as key Census data'.*

The Roadmap provides a breakdown of the population for the Waterford Metropolitan Area as of 2016, indicating a total population of 59,854, and maps for each of the Metropolitan Areas.

Waterford Metropolitan Areas	Population	Area (sq.km)	Density persons/sq.km
Waterford City/County Council			
Waterford City Area	48,216	38.31	1,259
Waterford County Area	3,399	46.74	73
Waterford City and County Council	51,615	85.05	607
Kilkenny County Council Area	8,239	57.60	143
Totals/Average	**59,854**	**143**	**420**

Table 2.2: Metropolitan Area Population, 2016 (Source: Implementation Roadmap for the National Planning Framework, 2018).

Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020)

A Ministerial Circular and accompanying Section 28 Planning Guidelines (*Housing Supply Target Methodology for Development Planning)* were issued by Minister Darragh O'Brien in December 2020. The purpose of the circular and guidelines is to set out a consistently applicable methodology that enables National Planning Framework (NPF) population targets to be translated into household demand projections and integrated housing supply targets at both national and local levels. The projected NPF population distribution forms the basis for one of the housing demand projection scenarios modelled by the ESRI, and this remains the preferred national development scenario to 2040. The guidelines note that the projected county population ranges set out in the Implementation Roadmap for the NPF '*continue to be the population parameters for local authority development planning processes. City or County development plans must therefore plan for the identified population growth within these estimates and use them as the basis for strategic decision-making in their development plan process, including its core strategy, settlement strategy and housing policies'.*

The guidelines note that in the absence of guidance, varying approaches have been taken by different local authorities in the interpretation and application of the population projections provided, with differing assumptions and methodologies resulting in inconsistency in translating the projections into housing demand. In order to resolve this issue and '*strengthen the relationship between national and regional population projections and their integration into the development planning process at local authority level*', the Economic and Social Research Institute (ESRI) were commissioned by the Department of Housing, Local Government and Heritage to provide a '*nationally integrated and standardised evidence base for local authorities to estimate overall housing demand*'. The ESRI identified four different scenarios for future population and housing demand.

NPF Scenario (NPF 50:50 City)

The guidelines state that the NPF 50:50 City scenario identified in the ESRI research paper[1] is broadly consistent with the National Planning Framework strategy and is therefore the '*recommended housing demand scenario to be utilised by planning authorities in their planning functions in order to plan for the provision of housing to meet projected levels of demand in their administrative area, in accordance with the NPF strategy'*.

Appendix 1 of the Ministerial Circular provides projected housing demand for each local authority area for the period 2020-2031 based on the NPF Scenario. The projected housing demand for County Waterford (as provided in Appendix 1 of the circular) is set out below in Table 2.3, and these projections have been utilised herein in the methodology for calculating housing demand for the development plan period (Section 4).

Waterford City and County Council		**Annual Average**	**Total Households**
A	ESRI NPF scenario projected new household demand 2017 to 2031	629	9,440
B	Actual new housing supply 2017-19	383	1,150
C	Homeless households, and estimated unmet demand as at Census 2016	N/A	164
D	**Housing Demand 2020-31 =**Total (A-B+C)/12	**705**	**8,454**

Table 2.3: Projected Housing Demand for County Waterford (Source: Table 21 of Appendix 1 - Projected Housing Demand by Local Authority Area 2020-2031, ESRI NPF Scenario Housing Supply Target').

The Section 28 guidelines provide a methodology for the application of NPF population and housing projections into local authority plan processes (in this case the Waterford City and County Development Plan 2022-2028), included below as Table 2.4.

[1] *Regional Demographics and Structural Housing Demand at a County Level*, Research Series, Number 111, Economic and Social Research Institute, December 2020.

City/County Council		Annual Average Households	Total Households
A	ESRI NPF scenario projected new household demand 2017 to Plan end year, or quarter (pro-rata)	Total projection/ relevant time period	Total projection[A]
B	Actual new housing supply 2017 to most recent available year or quarter prior to Plan commencement	Total completions /relevant time period	Total completions[B]
C	Homeless households (latest data), and unmet demand as at most recent Census	N/A	Total existing unmet demand[C]
D	**Plan Housing Demand** = Total (A-B+C) (Projected ESRI NPF demand - new completions + Unmet demand)	**Total Plan Demand/6 years**	**Total Demand for full 6-year plan period**
E	Potential adjustment 1 to end 2026 portion of plan period to facilitate convergence to NPF strategy (where justified)	Mid-point between ESRI NPF and Baseline scenarios to 2026 in lieu of A above	Adjusted Total Demand
F	Potential adjustment 2 to end 2026 portion of plan period to facilitate convergence to NPF strategy, applicable where B exceeds or is close to D (where justified)	Mid-point between ESRI NPF and baseline scenarios to 2026 in lieu of A above, plus up to 25%	Adjusted Total Demand

Table 2.4: Methodology for the application of NPF population and housing projections into local authority plan processes (Source: Table 1 of Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020)).

The methodology provided in the guidelines (in addition to the worked examples set out in Appendix 1 of the guidelines) has been utilised in Section 4 to calculate the housing demand for the development plan period. The projected NPF 50:50 housing demand scenario for County Waterford has been utilised as required by the guidelines.

Circular Letter Housing 14/2021 - Re: Housing Need and Demand Assessment (HNDA)

Circular Letter Housing 14/2021 accompanies a suite of documents providing updated guidance on Housing Need Demand Assessment. The circular advises that each local authority may now undertake a Housing Need and Demand Assessment for its administrative area using the specific HNDA Guidance and Tool and other resources available provided by the Department.

The Circular states '*it is expected that HNDA will be integrated into the development plan review process where planning authorities give notice of review of a development plan in accordance with section 11(1) of the 2000 Act, after the date of this Circular. Planning authorities may also consider variation of a development plan where a completed HNDA significantly affects a Housing Strategy in accordance with section 95(3) of the Act'.*

The circular notes that the Guidance on the Preparation of a Housing Need and Demand Assessment outlines the process for compiling a HNDA and what it should contain.

The Circular states that '*the section 28 planning guidelines of 18th December facilitate decisions regarding new housing supply targets for the 6-year period of development plans that are being formulated currently, to be determined in advance of the full integration of new HNDA methodology into the Housing Strategy preparation process'.*

Furthermore, the Circular states that Planning authorities are advised '*to ensure that the relevant Housing Supply Target determined through applying the Housing Supply Target Methodology for Development Planning is used as the basis for the development plan process'.*

Accordingly, the Housing Supply Target determined through the application of the Section 28 guidelines issued in December 2020 (*Housing Supply Target Methodology for Development Planning)* is utilised as the basis for this Housing Strategy as part of the overall development plan process. The Circular notes that Department intends to issue revised Housing Strategy Guidelines under section 28 to take account of housing need and demand assessment

Guidance on the Preparation of a Housing Need and Demand Assessment

The Department of Housing, Local Government and Heritage published a guidance document accompanying the circular on the preparation of a HNDA on the 14th of April 2021. The Foreword by Minister O'Brien notes that;

'*in order to ensure that the plan-making system is supported by a robust methodology to inform policies and funding initiatives around housing and associated land requirements, a Housing Need and Demand Assessment (HNDA) Framework has been developed to support the preparation of housing strategies and all related housing policy outputs'.*

The guidance document has been reviewed and utilised in the preparation of the HNDA, however as prescribed in the accompanying circular, the Housing Supply Target determined through applying the *Housing Supply Target Methodology for Development Planning* is used as the basis for this Housing Strategy. This approach is supported by the guidance document which states:

'In the case of Development Plans under preparation at the time of issue of this guidance, use the methodology outlined in the December 2020 'Housing Supply Target Methodology for Development Planning' guidelines to determine annual housing demand for the 6 years of the Plan'.

The guidance document refers to the function of the HNDA stating the following:

'The HNDA is designed to be the main evidence base from which estimates of housing need and tenure breakdown are to be calculated and consequently, from which housing policy is to be determined in the Housing Strategy, as well as influencing the relevant land use zoning objectives included within the Development Plan'.

The guidance document states that a HNDA framework '*is a standardised methodology that allows local authorities to assess local housing needs, existing and future, using consistent evidence bases and within a standardised framework'.* In relation to the process, the guidance document states that a '*specific HNDA Tool (developed and made available by the Department of Housing, Local Government and Heritage) is available for use by the local authority to assist in calculating the projected number of*

homes that are likely to be required to meet the estimated need over the determined period, broken down by tenure type'.

In relation to housing demand the guidance document states:

'The analysis of demographic and housing affordability data and the conclusions drawn from it are used to produce an estimate of total additional housing units required to meet existing and future housing need and a breakdown of tenure type'.

The guidance document includes the following table as a summation of the HNDA preparation process:

1.	Decide the time period that the HNDA will cover
2.	Compile section 1 on Housing Market Drivers
3.	Compile section 2 on Housing Stock
4.	Select the scenarios to run in the HNDA Tool
5.	Having regard to the results from the HNDA Tool, compile section 3 onestimating total additional housing units required in the local authority area over the period selected and broken down into tenure type
6.	Compile section 4 on specialist housing need (including stakeholder consultation)
7.	When complete, sign off the HNDA (Director of Service for Housing andDirector of Service for Planning)
8.	Incorporate the HNDA results into housing policy within the HousingStrategy

Table 2.5: HNDA Preparation Process Summary (Source: Guidance on the Preparation of a Housing Need and Demand Assessment).

The guidance document states that the default population projection scenario is the '*Convergence scenario, which when combined with the default assumptions around Existing Need is consistent with the 'Housing Supply Target Methodology for Development Planning, Guidelines for Planning* Authorities' issued under section 28 of the Planning and Development Act 2000 in December 2020'. The Convergence scenario is equivalent to the 50:50 city scenario adjusted for new housing supply since 2017, and to facilitate convergence to NPF strategy per the section 28 guidelines.

The guidance states that the Housing Strategy must include '*measures that address the housing needs of the existing and future population of the area covered by the strategy. It should provide for more sustainable patterns of development by ensuring that as far as possible housing development is designed and located so as to make full use of public transport and to give access to education, employment, health and other services'.*

Project Ireland 2040 – National Development Plan (NDP) 2018-2027

The National Development Plan will, through a planned capital investment of over €4.2 billion, support the delivery of some 40,000 new social housing homes by 2021. Direct Local Authority build, acquisitions, rejuvenation of formerly empty homes and provision by housing bodies are identified as the chief delivery mechanisms. By 2021, 12,000 social housing homes will be made available annually by Local Authorities and approved housing bodies for social housing. This level of provision is to be

maintained over the remainder of the period of the National Development Plan, resulting in 112,000 households having their housing needs met in a social housing home by 2027.

The NPF warns against the intensification of social housing properties in areas that are already dense with social housing and advocates the development of diverse neighbourhoods with a healthy balance of public and private housing.

Rebuilding Ireland – An Action Plan for Housing and Homelessness (2016)

The Action Plan published in 2016 aims to address the needs of homeless people and families in emergency accommodation, accelerate the provision of social housing, deliver more housing, utilise vacant homes and improve the rental sector. Rebuilding Ireland aims to increase residential house construction to 25,000 homes per annum and to deliver 47,000 units of social housing over the period of the Plan to 2021.
Actions to meet these objectives are organised under five pillars, each of which has a series of actions set out to address the opportunities and challenges presented by Ireland's housing sector. The five pillars are set out in the Action Plan for Housing and Homelessness as follows;

- Pillar 1 – Address Homelessness

Provide early solutions to address the unacceptable level of families in emergency accommodation; deliver inter-agency supports for people who are currently homeless, with a particular emphasis on minimising the incidence of rough sleeping, and enhance State supports to keep people in their own homes.

- Pillar 2 – Accelerate Social Housing

Increase the level and speed of delivery of social housing and other State supported housing.

- Pillar 3 – Build More Homes

Increase the output of private housing to meet demand at affordable prices.

- Pillar 4 – Improve the Rental Sector

Address the obstacles to greater private rented sector delivery, to improve the supply of units at affordable rents.

- Pillar 5 – Utilise Existing Housing

Ensure that existing housing stock is used to the maximum degree possible – focusing on measures to use vacant stock to renew urban and rural areas

The Action Plan for Housing and Homelessness pledged to support the enhanced role of existing Social Housing delivery initiatives and introduced the following new mechanisms and support schemes:

- Local Authority Construction & Acquisition (also known as the Social Housing Investment Programme (SHIP))

This programme provides funding to local authorities for the provision of social housing by means of construction and acquisition and covers expenditure under the Rapid Build Housing Programme, Part

V acquisitions, Land Aggregation Scheme and the Special Resolution Fund for unfinished housing developments.

- Capital Assistance Scheme (CAS)

To provide essential funding to Approved Housing Bodies (AHBs) for the provision of accommodation for persons with specific categories of housing need such as Homeless and Older Persons, People with Disabilities, Returning Emigrants and Victims of Domestic Violence.

- Vacant Housing Repair and Leasing Initiative:

This scheme enables local authorities, having identified appropriate vacant privately-owned properties in their functional areas, to provide upfront financial assistance to meet reasonable renovation works and to enter into long term lease arrangements with property owners. Renovation costs will be recouped from rent over an agreed period.

- Part V Delivery:

The Action Plan sets out a commitment to ensure adequate resources are made available to both local authorities and Approved Housing Bodies. This is to allow them to purchase or lease newly built private dwellings to the fullest extent envisaged by Part V of the Planning and Development Act 2000. In addition, where appropriate, the leasing of additional privately developed dwellings beyond the extent envisaged by Part V is supported. Furthermore, the up-front purchase of the Part V social housing requirement will be facilitated, subject to the introduction of strict controls.

Housing for All - a New Housing Plan for Ireland (2021)

'Housing for All - a New Housing Plan for Ireland' is the government's housing plan to 2030 stated as '*a multi-annual, multi-billion euro plan which will improve Ireland's housing system and deliver more homes of all types for people with different housing needs'.*

The policy has four pathways to achieving housing for all:

- Supporting home ownership and increasing affordability
- Eradicating homelessness, increasing social housing delivery and supporting social inclusion
- Increasing new housing supply
- Addressing vacancy and efficient use of existing stock

Each pathway includes a number of measures as set out below aimed at achieving housing for all.

<u>Supporting Homeownership and Increasing Affordability</u>

- Increased supply of new housing, up to an average of at least 33,000 per year to 2030
- An average of 6,000 affordable homes to be made available every year for purchase or for rent by Local Authorities, AHBs, the LDA and via a strategic partnership between the State and retail banks.
- A new Local Authority-led Affordable Purchase Scheme.

- A new, nationally available, affordable purchase shared-equity First Home scheme until 2025 for buyers of new-build homes in private developments.
- The LDA will be a new and important source of affordable housing on public lands, and will advance a new initiative, Project Tosaigh, to enhance the early delivery of new affordable homes.
- The LDA will deliver a significant number of homes on State lands, and in association with Local Authorities in major mixed tenure developments.
- Increased contribution by developers under Part V, up from 10% to 20%, to include affordable housing and cost rental housing.
- Launch of a newly expanded Local Authority Home Loan.
- Extended Rent Pressure Zone Protections to 2024 and rents linked to the Harmonised Index of Consumer Prices.
- Introduction of indefinite tenures for rent leases.
- Introduction of a new form of rental tenure called 'Cost Rental' homes.

Eradicating Homelessness, Increasing Social Housing Delivery and Supporting Social Inclusion

- Provide more than 10,000 social homes each year, with an average 9,500 newbuild Social Housing Homes to 2026.
- Through an updated 'Housing First National Implementation Plan', provide 1,200 tenancies over the next five years for people with a history of rough sleeping, or long-term use of emergency accommodation and who have complex needs.
- End long-term leasing of social housing by Local Authorities and AHBs through phasing out new entrants and focussing on new-build to provide social homes.
- Strengthen the Mortgage to Rent scheme to ensure it meets the needs of those in long-term mortgage arrears.
- Make improvements in the quality and quantity of Traveller-specific accommodation.
- Provide continued capital funding for housing for specific vulnerable cohorts, such as housing for older people and people with a disability, through the Capital Assistance Scheme and other social housing schemes.

Increasing new housing supply

- An annual average investment of in excess of €4bn in housing, through an overall combination of €12bn in direct Exchequer funding, €3.5bn in funding through the Land Development Agency (LDA) and €5bn funding through the Housing Finance Agency (HFA).
- Over 10,000 social homes and 6,000 affordable homes for purchase or rent per annum.
- State land bank to provide more land to the LDA to bring forward up to 15,000 homes and State to fund Local Authorities for land acquisition.
- In accordance with the National Planning Framework, focus on adequate supply of serviced zoned lands to meet housing need, at required density.
- Introduce updated Kenny Report style powers to ensure sharing of the increase in land values resulting from zoning decisions and more community gain.
- Introduce a new planning process for Large-Scale Residential Developments, to replace the Strategic Housing Development process.

- Establish Urban Development Zones, which will provide a coordinated, plan-led approach to the delivery of residential and urban development.
- Overhaul and simplify planning legislation to ensure certainty and stability.
- Bring forward reform of the Judicial Review process and introduce a new division of High Court for Planning and Environmental cases to reduce planning delays.
- Introduce a new tax to activate vacant lands for residential purposes, to replace the Vacant Site Levy.
- Provide a New Fund, Croí Cónaithe (Cities) to address acute viability challenges in urban areas that are curtailing home ownership.
- Increase skills and capacity to deliver an average of 33,000 homes per year.

Addressing vacancy and efficient use of existing stock

- A new Croí Cónaithe (Towns) Fund for servicing sites for new homes in regional towns and villages and to support refurbishment of vacant houses. Public infrastructure agencies, such as Irish Water, and local communities will work to provide serviced sites for housing. This will help attract people to build their own homes and live in small towns and villages.
- Energy retrofit supports to refurbish older vacant stock.
- Support for Local Authorities to purchase and resell up to 2,500 of the identified vacant properties in their areas. Compulsory Purchase Order (CPO) powers will be used where necessary. Local Authorities will be supported by Housing Finance Agency funding.
- Reform the 'Fair Deal' Scheme (the scheme that provides financial support to those in long-term nursing home care) to incentivise people in long-term care to rent or sell their property.
- Establish new controls on short-term lettings.
- Collect data on vacancy with a view to introducing a new Vacant Property Tax.
- Planned management and maintenance of Local Authority housing stock.
- Incentivise the refurbishment and extension of vacant properties in towns or villages, for example, through energy retrofit supports and the Urban Regeneration Development Fund (URDF) / Rural Regeneration Development Fund (RRDF) and other mechanisms.

National Vacant Housing Reuse Strategy 2018-2021

The National Vacant Housing Reuse Strategy was published in 2018 to support Pillar 5 of the Rebuilding Ireland: Action Plan for Housing and Homelessness. The strategy sets the objective to maximise the use of our existing housing stock focusing on measures to use vacant stock to renew urban and rural areas. The Strategy sets out a range of actions, grouped under five key objectives as follows:

- Objective 1: Establish robust, accurate, consistent and up-to-date data sets on vacancy.
- Objective 2: Bring forward measures to ensure, to the greatest degree possible, that vacant and underused privately owned properties are brought back to use.
- Objective 3: Bring forward measures to minimise vacancy arising in Social Housing Stock.
- Objective 4: Continued engagement with and provision of support to key stakeholders to ensure suitable vacant properties held by banks, financial institutions and investors are acquired for social housing use.

- Objective 5: Foster and develop cross-sector relationships, collaborating in partnership to tackle vacant housing matters.

Social Housing Strategy 2020

The Social Housing Strategy 2020 sets out the framework for the delivery of new social housing and for social housing assessment, delivery and financing. The Strategy is based on three pillars:

- Pillar 1: Provide for 35,000 new social housing units, over a six-year period, to meet the additional social housing supply requirements as determined by the Housing Agency;
- Pillar 2: Support up to 75,000 households through an enhanced private rental sector; and
- Pillar 3: Reform social housing supports to create a more flexible and responsive system.

Phase 1 sets a target of 18,000 additional housing units and 32,000 HAP/RAS units by the end of 2017. Phase 2 sets a target of 17,000 additional housing units and 43,000 HAP/RAS units by end 2020.

Urban Regeneration and Housing Act 2015

The Act provides that where a residential scheme is greater than 9 units developers are obliged to set aside 10% of the scheme for social or affordable housing for local authorities. The option of making of payment in lieu of social housing is no longer available.

Provision has been made for the transfer of residential units outside the lands which are subject to planning permission, but within the relevant Development Plan area. The social housing delivery options now permitted are the transfer of ownership of lands, transfer of completed social housing units on the land, transfer of ownership of completed social housing units on other land, not subject to the planning permission.

There is no longer a requirement for the developer to build housing units on other land to fulfil their Part V obligations. The Part V obligation can now be fulfilled by developers through long term leasing of properties and a combination of the Part V options above is also allowed.

A vacant site levy was also introduced, charged each year from 1 January 2018 and will be payable in arrears each year from 1 January 2019. It provides Local Authorities with the power to apply levies to property owners who do not take steps to develop vacant and under-utilised in areas identified for priority development under the local Development Plan.

National Housing Strategy for People with a Disability (2011-2016)

The National Housing Strategy for People with a Disability 2011 – 2016 was published in October 2011. The Strategy sets out the Government's broad framework for the delivery of housing for people with disabilities through mainstream housing options. The Strategy has also been affirmed in the Action Plan for Housing and has been extended to deliver on its aims and continue to guide and progress policy.

The strategy has nine strategic aims:

1. To promote and mainstream equality of access for people with a disability to the full range of housing options available suited to individual and household need.
2. To develop national protocols and frameworks for effective interagency cooperation which will facilitate person-centred delivery of housing and relevant support services.
3. To support people with a disability to live independently in their own homes and communities, where appropriate.
4. To address the specific housing needs of people with an intellectual and/or physical disability, moving from congregated settings in line with good practice, including through the development of frameworks to facilitate housing in the community.
5. To address the specific housing needs of people with a mental health disability, including through the development of frameworks to facilitate housing in the community, for people with low and medium support needs moving from mental health facilities, in line with good practice.
6. To consider good practice in the design, coordination and delivery of housing and related supports.
7. To facilitate people with a disability to access appropriate advice and information in respect of their housing needs.
8. To improve the collection and use of data/information regarding the nature and extent of the housing needs of people with a disability.
9. To provide a framework to support the delivery, monitoring and review of agreed actions.

Design Standards for New Apartments - Guidelines for Planning Authorities (December 2020)

The Ministerial Letter to Local Authorities accompanying the updated Section 28 Guidelines on Design Standards for New Apartments have been issued to give effect to restrictions on Co-living Development. The updated apartment guidelines now include a Specific Planning Policy Requirement (SPPR) for a presumption against granting planning permission for co-living/shared accommodation development, and replace the previous 2018 guidelines. The December 2020 changes solely relate to the 'Shared Accommodation' (Co-living) aspects of the guidance.

The Ministers Foreword within the updated guidelines states:

'I concluded that given the scale, location and potential impact of co-living development permitted to date, as well as the local authority-led Housing Need and Demand Assessment (HNDA) process that is being developed by my Department, that there are sufficient shared accommodation/co-living units either permitted or subject to consideration within the planning system, that may be built out to demonstrate and prove this concept, without impacting the housing system'.

The Apartment Guidelines contain a number of specific planning policy requirements, which take precedence over policies and objectives within Development Plans, Local Area Plans and SDZ planning schemes.

Specific Planning Policy Requirement 1 states:

'Housing developments may include up to 50% one-bedroom or studio type units (with no more than 20-25% of the total proposed development as studios) and there shall be no minimum requirement for apartments with three or more bedrooms. Statutory development plans may specify a mix for

apartment and other housing developments, but only further to an evidence-based Housing Need and Demand Assessment (HNDA), that has been agreed on an area, county, city or metropolitan area basis and incorporated into the relevant development plan(s)'.

The guidelines state that into the future, a majority of households will comprise 1-2 persons and approximately half of the remainder will be three person households, and notes it is critical to accommodate the needs of increasingly more diverse household types in the context of a growing and ageing population.

2.2 Regional Policy

Regional Spatial and Economic Strategy for the Southern Region

The Regional Spatial and Economic Strategy (RSES) provides a high-level development framework for the Southern Region that supports the implementation of the National Planning Framework (NPF) and the relevant economic policies and objectives of Government. The RSES includes '*Regional Policy Objectives'* which set out a suite of regional development objectives that provide a long term strategic planning and economic framework for the development of the region, and in turn set the framework for city and county development plans. The RSES also includes a Metropolitan Area Strategic Plan (MASP) for Waterford which provides a *'high level strategic framework for the sustainable development of the Waterford Metropolitan Area'*.

The RSES states that '*the Southern Region represents over 40% of Ireland's total landmass and one third of the national population. With three of the country's five cities - Cork, Limerick and Waterford and a network of large towns, the region has a strong urban structure'.*

The region is divided into three sub-regional areas, called Strategic Planning Areas (SPAs) with Waterford located in the South-East SPA.

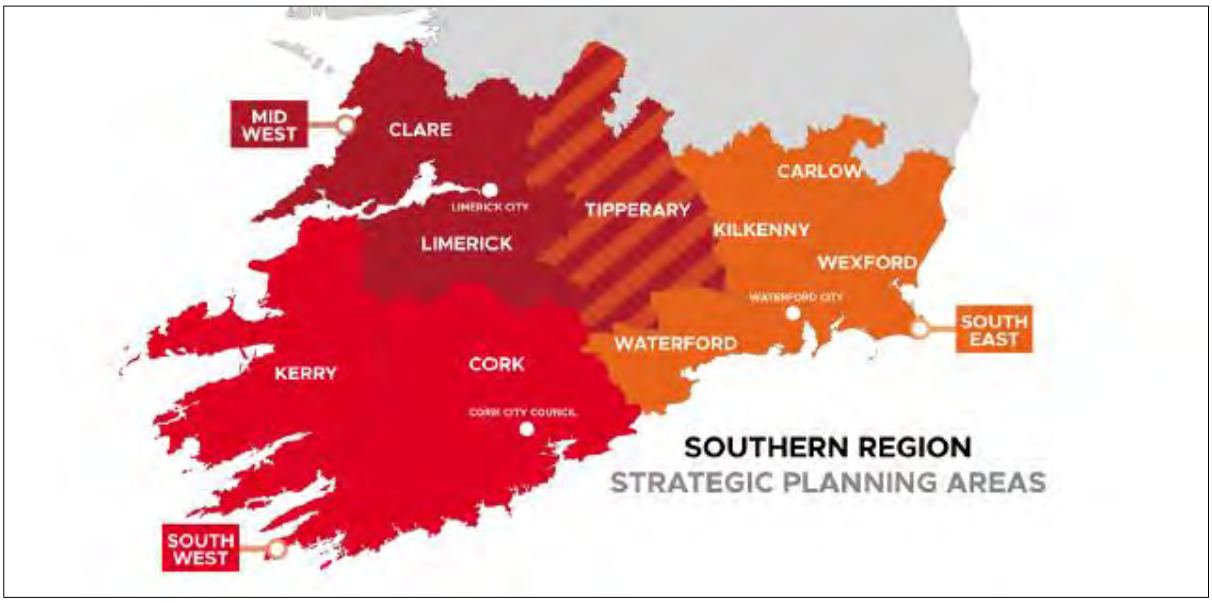


Figure 2.1: RSES Map 1.1 Southern Region & Strategic Planning Areas (SPAs)

The RSES notes that the Southern Region contains one-third of the State's population (1.6m) and is the second most populated Regional Assembly area. The highest rates of population increase were in commuter areas near to Cork and Limerick Cities and in areas close to other larger settlements. Population decline was experienced, primarily in rural and peripheral areas, with the largest decreases recorded in areas of Clare, Kerry, Limerick and Cork. Population decline was also evident in areas within Cork, Limerick and Waterford Cities.

The policies in the RSES are structured under Regional Policy Objectives (RPOs) and Metropolitan Area Strategic Plan (MASP) Policy Objectives. Relevant RPOS and objectives within the MASP have informed the development of this Housing Strategy for Waterford City and County Council.

In relation to regional strategy, Regional Policy Objective 2 (RPO 2) states *'the overall strategy builds on cities and their associated metropolitan areas as engines of growth and seeks, in parallel, to re-position the Region's strong network of towns, villages and diverse rural areas in an economically resilient, imaginative and smart way to foster sustainable competitive advantage'.*

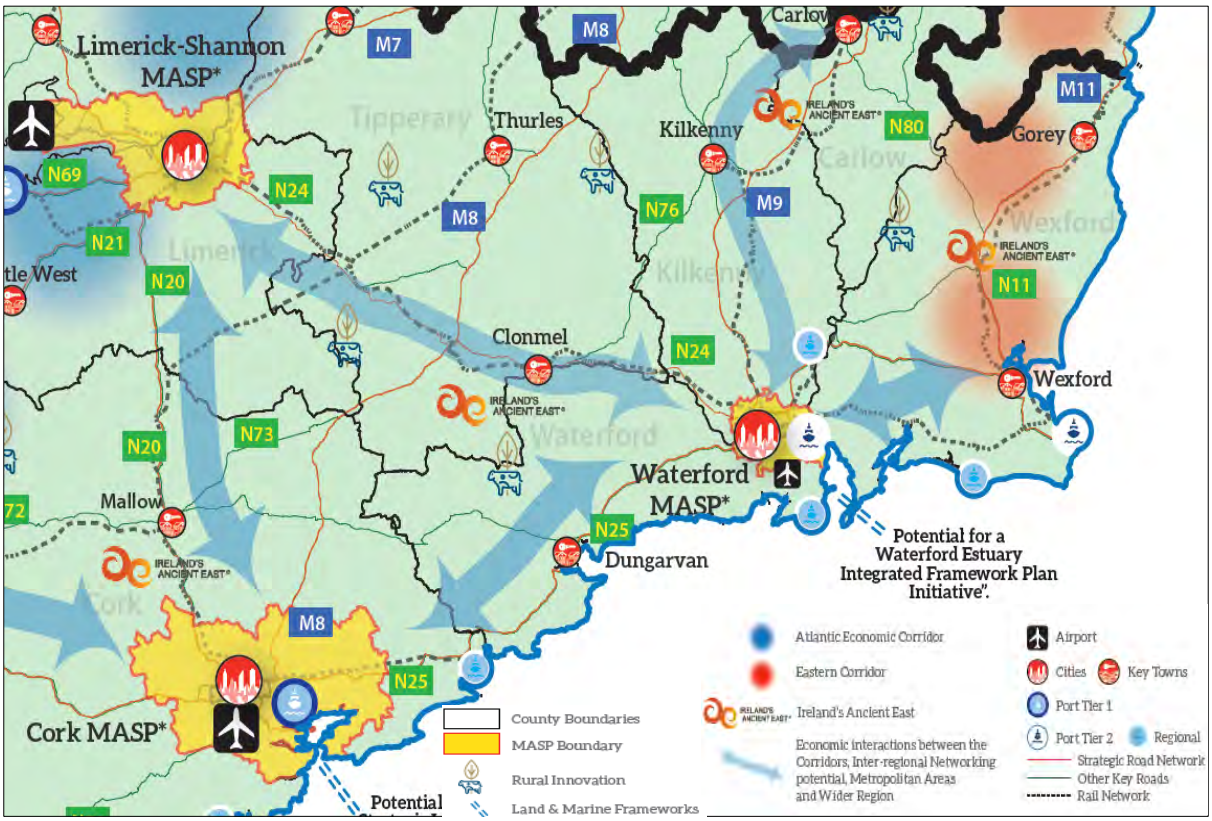


Figure 2.2: Southern Region Strategy Map

RPO 10 relates to compact growth in the metropolitan areas and seeks out to '*prioritise housing and employment development in locations within and contiguous to existing city footprints where it can be served by public transport, walking and cycling'.*

RPO 35b states that *'Development Plans shall set out a transitional minimum requirement to deliver at least half (50%) of all new homes that are targeted in the Region's three Cities and suburbs of Cork, Limerick and Waterford, within their existing built up footprints in accordance with NPF National Policy Objective 3b. This will be evidence based on availability and deliverability of lands within the existing built up footprints'.*

Waterford MASP

The MASP provides a high level strategic framework for the sustainable development of the Waterford Metropolitan Area based on the ambition for the City and Metropolitan area as an innovation-centred, enterprising, University City with a diverse population, a vibrant cultural sector, a thriving economy, and a significant and substantial profile that brings European and international recognition.

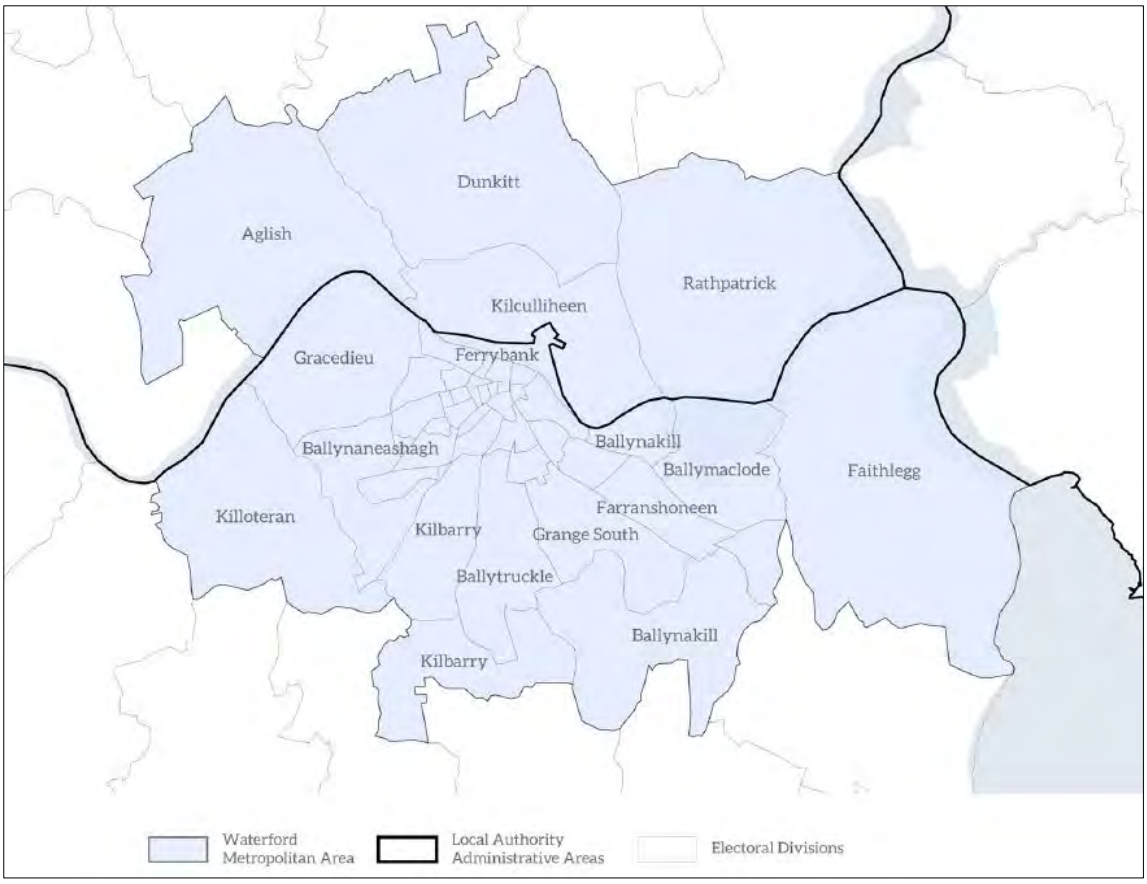


Figure 2.3: Waterford Metropolitan Area

The MASP notes that clarification has been received from the Department that the 25% Headroom identified in the NPF Implementation Roadmap can apply to the County Kilkenny area of the Waterford Metropolitan Area.

The NPF Enablers identified for the Waterford MASP include identifying infill and regeneration opportunities to intensify housing and employment development throughout city centre and inner suburban areas.

The MASP reiterates the NPF requirement that 50% of all new housing within Waterford City and Suburbs is to occur within its existing footprint, through brownfield, infill and regeneration. Outside of Waterford City and Suburbs, 30% of all new homes targeting settlements is to occur within their existing built-up footprints as per National Policy Objective 3 (c) of the NPF.

Waterford MASP Policy Objective 8 relates to Housing and Regeneration and states the following:

'a. It is an objective to support the high-quality compact growth of Waterford City Centre and suburban areas, the assembly of brownfield sites for development and the regeneration and redevelopment of Waterford City Centre to accommodate residential use. The MASP will support initiatives which facilitate compact growth and which promote well designed high-density residential developments which protect amenities and in the city centre and suburban areas.

b. It is an objective to ensure investment and delivery of comprehensive infrastructure packages to meet growth targets that prioritises the delivery of compact growth and sustainable mobility in accordance with NPF and RSES objectives'.

2.3 Local Policy

Waterford City & County Council Traveller Accommodation Programme (TAP) 2019-2024

The Housing (Traveller Accommodation) Act 1998 amends and extends the existing Housing Acts and places a statutory obligation on WC&CC in relation to, inter alia, the following:

1) To prepare and adopt a Traveller Accommodation Programme (TAP), subject to periodic review, for the provision of Traveller Accommodation in the County.
2) To provide for a public notification and consultation process in respect of the preparation of the TAP, including an opportunity to comment on draft programmes.
3) To take reasonable steps to secure the implementation of the TAP in the County.
4) To provide for the establishment of a Local Traveller Accommodation Consultative Committee to facilitate consultation with Travellers about the preparation and implementation of Traveller Accommodation Programme.
5) To extend to halting sites the powers available to local authorities under the Housing (Miscellaneous Provisions) Act, 1997 relating to anti-social behaviour and estate management.

The Policy Statement in the TAP states that it '*is the policy of Waterford City and County Council to endeavour to provide accommodation appropriate to the needs of Traveller households who live in the area, who are approved applicants for accommodation by the Council and who are included in the assessment of need in the preparation of this programme. Approved housing applicants of Waterford City and County Council are all applicants who are assessed as having an accommodation need'.*

The TAP notes that the assessment of need for the Traveller Accommodation Programme 2014-2018 was carried out as two separate assessments by Waterford City Council and Waterford County Council (including the assessment of need for the Dungarvan Town Council Area).

The TAP is discussed in greater detail in Section 5 of this report.

Waterford Age Friendly Alliance City and County Strategy 2017-2022

Ireland's National Age Friendly City and Counties programme '*is part of this worldwide initiative which aim to make sure that as we age, we all can have a real say in what happens in our own lives, what happens in the areas in which we live, enjoy good health, excellent services, live in a safe environment, and participate fully in everything that is going on in our Communities'.*

The Waterford Age Friendly Strategy was developed as a result of consultation with the older people of Waterford and with the agencies and service providers involved in the delivery of services to older adults throughout the County.

The Waterford Age Friendly Strategy is structured under nine key themes that underpin the work of the Alliance during the lifetime of the strategy:

- *'Respect and Social Inclusion*
  Defined as: 'ensuring that as people age they feel valued and respected'
- *Social Participation*

Defined as: 'ensuring that as people age they can participate in social, economic and public life'

- *Civic Participation and Employment*
  Defined as: 'ensuring that as people age they are able to learn, develop and work'
- *Home Environment*
  Defined as: 'ensuring that as people age they can stay in their own homes and communities'
- *Health/Active Living*
  Defined as: 'ensuring that as people age they can live healthier, active lives for longer
- *Transportation*
  Defined as: 'ensuring that as people age they can get where they need to go when they need to go'
- *Built and Natural Environment*
  Defined as: 'to ensure that as people age they are enabled by the built and social environment'
- *Safer Communities*
  Defined as: 'to ensure that as people age they are safe at home and when out and about'
- *Communication and Information*
  Defined as: 'to ensure that as people age they have the information they need to live full lives''.

In relation to the theme of housing and home, a strategic action is listed which aims *'to provide suitable housing for Older People and people with specific needs and requirements in sustainable age friendly communities'.*

The consultation process for the strategy revealed a *'huge need for Bungalows to allow older people to downsize/move to more suitable accommodation with downstairs bathroom/level access showers'.*

3.0 Current Contex

3.0 Current Context – Housing Market Drivers

3.1 Population

Regional Context

County Waterford is located within the Southern Regional Assembly (SRA) area, a region with approximately one third of the state's population (1,585,906) and c. 42% of Irish state territory. The RSES for the SRA notes the region has a strong urban structure, with three of the country's five cities and a network of large towns.

The RSES notes that all 10 local authority areas in the Southern Region have experienced growth at varying levels since 2006, and between 2006 and 2016, the highest rates of population increase were in commuter areas near to Cork and Limerick Cities and in areas close to other larger settlements.

The RSES states that in 2016, the three cities and suburbs accounted for 22% of the Region's total population, and growth in the cities and suburbs within the region outpaced overall Regional and State level growth from 2011-2016. The Southern Region grew by 9.9% between 2006 and 2016, an additional 142,910 people. Cork County has been the primary beneficiary of population growth within the region over the period with an increase of 55,334 (15.3%).

In relation to the demographics of the region, the RSES notes that the overall age structure for the Region mirrors that of the State. Population projections anticipate large increases in the 15-24 year (+26%), 45–64 year (+14%) and 65+year (+56%) age groups between 2016 and 2031. The 0-14 year and 25-44 year age groups are projected to decrease by approximately 14%.

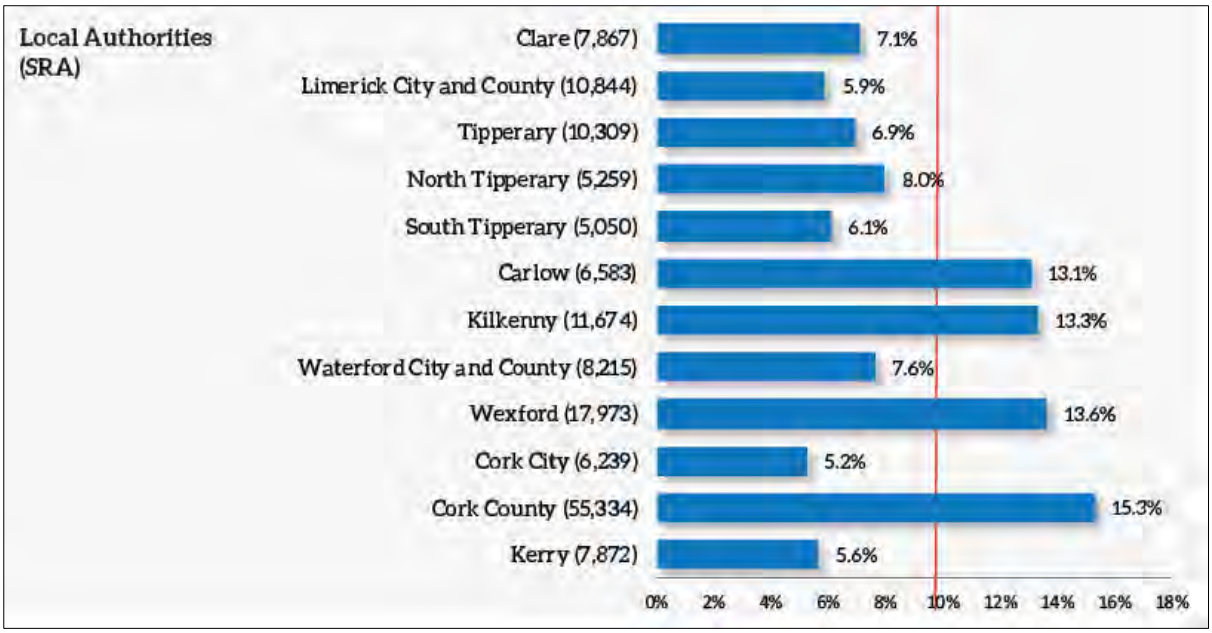


Table 3.1: County population change 2006 – 2016 (SRA Region) (Source: Table 1.3 Regional Spatial and Economic Strategy for the Southern Region (RSES))

Waterford

A socio-demographic indicator profile of Waterford City and County compiled by AIRO (All-Island Research Observatory) in 2020 notes that Waterford's population of 116,176 represents 2.4% of the State's population and that Waterford is the 19th most populated local authority in Ireland and is the 3rd most populous county in the South-East with both Tipperary (N+S 159,553) and Wexford (149,722) with higher populations.

The profile by AIRO notes that Waterford's population has grown consistently and steadily since 1996, with an increase of 22.7% (21,496) observed over twenty years (1996-2016). This increase is lower than the State average of 31.3%. Growth rates in Waterford over previous decades have been much lower at 8.5% between 1979 and 1996, and 12.9% between 1971 and 1979.

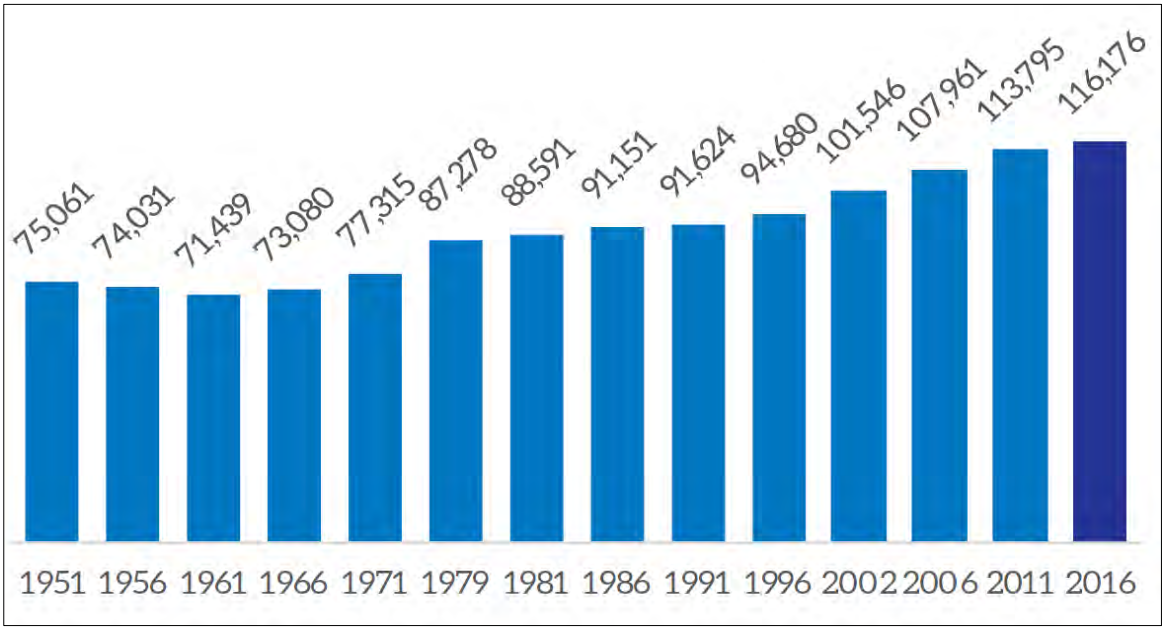


Figure 3.1: Total Population County Waterford - 1951 to 2016 (Source: Figure 1.2: A socio-demographic indicator profile of Waterford City and County, AIRO, 2020)

Analysis of census data reveals the population of County Waterford grew by 5.4% (5,834) from 2006 to 2011, with a marked slowdown in growth to 2.1% (2,381) in the following intercensal period (2011-2016) corresponding with a period of national economic contraction experienced post 2008. The rate of population increase in Waterford is lower than the Southern Regional Assembly average (+26.3) with Wexford (+43.5%), Carlow (+36.8%) and Kilkenny (+31.7%) all recording higher levels of growth.

Census 2016 reveals that the national population increased by 3.8% (173,613) from 2011 to 2016, revealing that County Waterford's growth was below the national growth figure. Of the 173,613 national increase, 138,899 was in urban areas, or 80 per cent[2] . The historical growth figures provide some context for the determination of future population projections.

[2] https://www.cso.ie/en/releasesandpublications/ep/p-cp2tc/cp2pdm/pd/

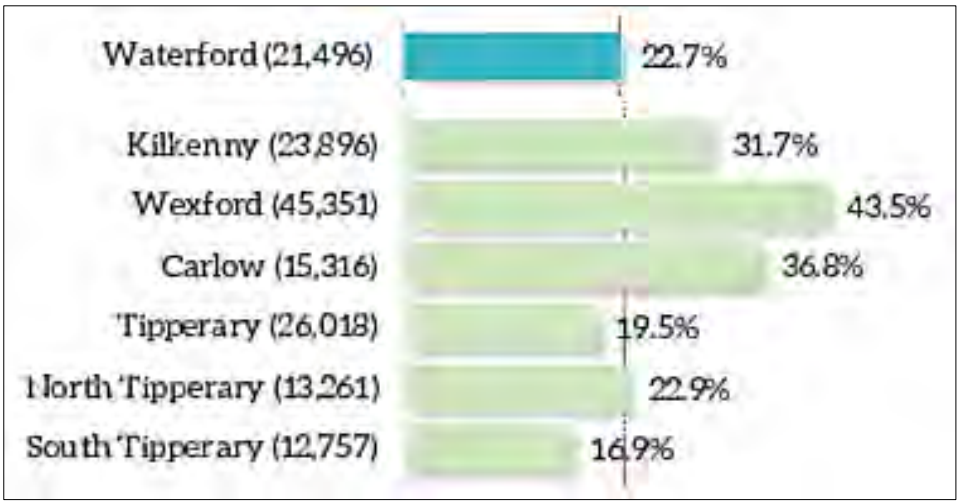


Figure 3.2: Population Change, 1996 to 2016 (Source: AIRO & CSO)

The AIRO profile provides detailed population analysis for County Waterford sourced from the CSO. It notes that the Waterford City Municipal District (MD) is the largest in terms of population with a total population of 67,835 accounting for 58.4% of the population in the county. The Comeragh MD is the smallest and accounts for 14.7% of the county population.

The Waterford MASP area has a total population of 59,854. Of this number, 51,615 (86.2%) are located in Waterford and account for 44.4% of the total population in the county. The remaining 8,239 (13.8%) of the MASP total reside in County Kilkenny. The Key Town of Dungarvan has a population of 10,388, with Tramore at 10,381.

	(Total Population)	
LA	Waterford City and County (116,176)	100.0%
MASP	Waterford MASP (59,854)	
	Waterford MASP (Waterford) (51,615)	44.4%
	Waterford MASP (Kilkenny) (8,239)	
Municipal Districts (2018)	Comeragh (MD) (17,120)	14.7%
	Dungarvan-Lismore (MD) (31,221)	26.9%
	Metro District of Waterford City (MD) (67,835)	58.4%
Metropolitan Area	Waterford city and suburbs* (48,216)	41.5%
Key Town	Dungarvan/Ballinroad (10,388)	8.9%
Urban Towns (>1,500)	Tramore (10,381)	8.9%
	Dunmore East (1,808)	1.6%
	Portlaw (1,742)	1.5%
	Lismore (1,374)	1.2%

Table 3.2: Population Breakdown of County Waterford, 2016 (Source: AIRO/CSO)

Demographics

The breakdown of population in County Waterford as of Census 2016 is 58,525 females and 57,651 males, with 29,347 children recorded.

The total dependency ratio in County Waterford (proportion of the population aged 0 to 14 and over 65 as a percentage of the total population) is 36.1%. The dependency rate in County Waterford has increased by 4.1% (1,657) from 2011 to 2016 and is the 17th highest rate in the state.

Age Dependency	0-14 Years	15-64 Years	Over 65 Years	Young Age Ratio (%)	Old Age Ratio (%)	Total Dependency Ratio (%)
Persons	24,545	74,260	17,371	21.1%	15.0%	36.1%

Table 3.3: Age Dependency Ratio 2016 (Source: CSO)

The AIRO profile notes there are six settlements which have a dependent population greater than 500: Waterford City and Suburbs (16,510 or 52.1%), Dungarvan/Ballinroad (3,794 or 57.5%), Tramore (3,868 or 59.4%), Dunmore East (638 or 54.5%), Portlaw (655 or 60.3%) and Lismore (534 or 60.3%). The highest dependency rate is Villierstown at 72.5%.

In 2016, the top two counties with the highest old dependency ratios were Mayo (28.3) and Leitrim (27.4). The counties with the lowest old dependency ratios were Fingal (13.8) and Kildare (15). The Old Age Dependency Ratio is the ratio between the number of persons aged 65 and over and the number of persons aged between 15 and 64. This ratio is increasing nationally, with the figure rising from 17.4% in 2011. This trend has implications for housing and service provision.

3.2 Existing Housing Stock and Supply

A socio-demographic indicator profile of Waterford City and County was compiled by AIRO (All-Island Research Observatory) in 2020. The objectives of the study was to provide Waterford City and County Council with a wide range of socio-economic and spatial datasets, providing an evidence baseline that can support a number of spatial planning initiatives such as the review of the Development Plan for Waterford City and County. Chapter 2 of the study provides a Housing Profile which has been utilised extensively in the preparation of this Housing Strategy.

Existing Housing Stock and Composition

Census 2016 records a total housing stock of 43,549 units in County Waterford. The number of vacant units in 2016 stood at 5,194 (excluding holiday homes and those dwellings deemed to be temporarily absent). The housing vacancy rate (recorded through Census 2016) of 9.9% of the total stock within the county is higher than the state average of 9.1%.

The Waterford City and County Council Vacancy Taskforce Assessment Report which included a pilot field-based survey reports a lower vacancy rate of 4.4%. The total number of properties surveyed was 986 and the properties identified as vacant in both waves of inspections was 43.

The survey notes that *"the level of long term vacant residential dwellings that can potentially be reactivated into the liveable housing stock may be somewhat less than originally supposed".* In addition, it states that *"a number of the properties identified as potentially long-term vacant would not be in areas that are of high demand or suitable for the social housing model".* The pilot required

two visual inspections, six months apart, with those houses occupied between the two inspections disregarded. In the Small Area Survey Sample of 9 areas across Waterford City, the sample survey indicates lower vacancy recordings than the published data from Census 2016.

Small Area Survey Sample	Census 2011			WCCC Sample Survey 2016			Census 2016		
Location	*Total Stock*	*Vacant*	*Vacancy Rate*	*Total Stock*	*Vacant*	*Vacancy Rate*	*Total Stock*	*Vacant*	*Vacancy Rate*
9 Small Areas in Waterford City	1076	196	18.2%	1071	95	8.9%	1076	146	13.6%

Table 3.4: Waterford City Sample Survey of Vacancy (Vacancy Taskforce Assessment Report)

The AIRO profile notes a wide variation in vacancy rates across the settlements within County Waterford with recorded rates ranging from 4% (Dunmore East) to 22.7% (Cappoquin). Three settlements have more than 20% of housing units classed as vacant (less holiday homes): Cappoquin (22.7%), Kill (21.6%) and Kilmeaden (20.3%). Within the Urban Towns, Lismore has a rate of 16.2% which is more than double the rate of other settlements.

Census 2016 was the first census where data on the type of vacant dwelling was captured[3]. There were 2,142 holiday homes recorded in County Waterford

County Waterford - Occupancy Status	Total Dwellings
Occupied	43,719
Temporarily Absent	1,436
Unoccupied Holiday Homes	2,142
Other Vacant Dwellings	5,194
Total	**52,491**

Table 3.5: Occupancy Status of permanent dwellings in County Waterford (Census 2016)

Housing Tenure

The total number of households was c43,455 and the proportional breakdown of housing tenures, privately owned, privately rented and publicly rented accommodation in County Waterford is set out in Table 3.6 and Table 3.7 (as sourced from Census 2016). As can be seen home ownership in the county stood at 66.8% in 2016.

County Waterford	Owner occupied with mortgage	Owner occupied with no mortgage	Rented from a Landlord (including voluntary/co-op body)	Rented from Local Authority	Occupied free of rent	Not Stated	Total
No. of Households	12,917	16,134	7,254	5,087	696	1,367	**43,455**
% Households	29.7%	37.1%	16.7%	11.7%	1.6%	3.1%	

Table 3.6: Household Occupancy in County Waterford 2016 (Census 2016)

[3] https://www.cso.ie/en/releasesandpublications/ep/p-cp1hii/cp1hii/vac/

Home ownership remains the dominant tenure in County Waterford as evident from the Census data in Table 3.6 and 3.7. Of this cohort 29.7% of households pay a mortgage, with 37.1% mortgage free.

Occupancy Tenure	Households	Household %
Owner Occupied	29,051	67%
Rented (Privately)	7254	17%
Social Housing	5,087	12%
Occupied free of rent or not stated	2063	5%
Total	**43,455**	

Table 3.7: Household Tenure in County Waterford (Census 2016)

Household Size

Household size cohort represents the number of people per households. 55.7% of households are 1 and 2 person households, as illustrated below in Table 3.8.

No. People per Household	Households	Persons	Households %	Persons %
1-person household	11,355	11,355	26.1%	9.9%
2-person household	12,890	25,780	29.6%	22.5%
3-person household	7,342	22,026	16.9%	19.3%
4-person household	6,766	27,064	15.5%	23.7%
5+ person household	5,196	28,177	11.9%	24.6%
Total	**43,549**	**114,402**		

Table 3.8: Household Size in County Waterford (Census 2016)

Compositionally, there were 43,549 households and an average household size of 2.67, which is marginally lower than the national rate of 2.75.

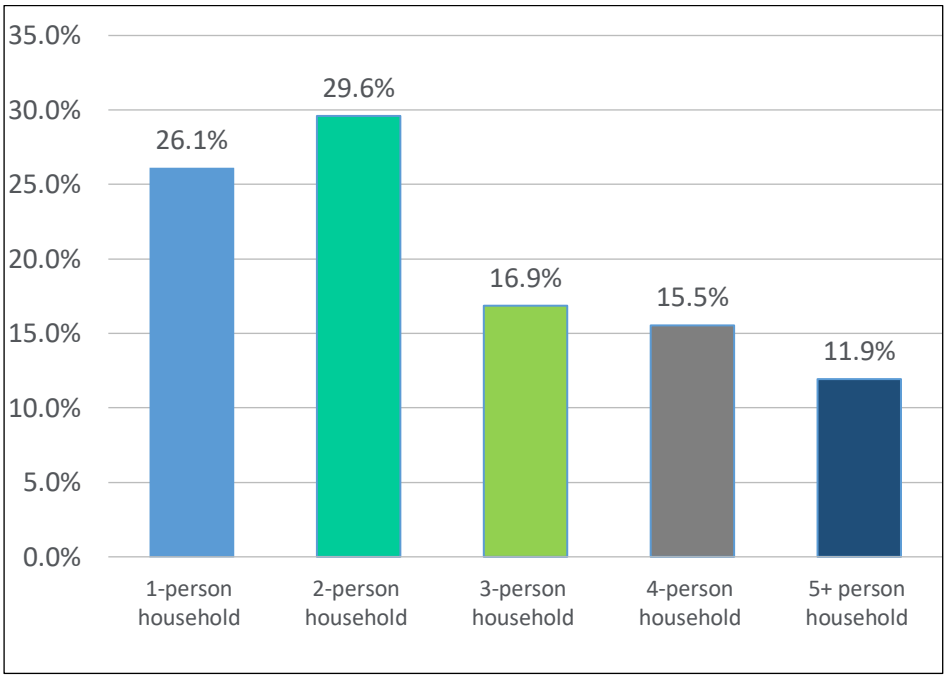


Figure 3.3: Household Size in County Waterford (Census 2016)

3.3 Unfinished Housing Development

The 2017 National Housing Development Survey which tracks progress on unfinished housing developments since 2010 indicates that there were 8 unfinished housing developments in County Waterford in 2017. Construction activity was ongoing on 2 of the sites at the time of the survey. According to the survey there were 7 vacant units spread across the developments.

Following the inspection of the 8 unfinished housing development sites in 2017, the number of unfinished housing developments was reduced to 5, a reduction of c.62% from 2016 to 2017. This information was published in the 2017 Annual Progress Report on Actions to Address Unfinished Housing Developments.

3.4 Housing Permissions

A detailed analysis of trends in planning permissions is included in Section 5.2 herein. In relation to trends in planning permissions for residential units, the proportion of one off housing as a percentage of overall housing granted had been in decline since 2015, standing at 13.3% in 2019. An increase in percentage terms is noted in 2020, which may relate to the impacts of Covid-19 on completions of larger schemes. The quantum of one off houses permitted annually (and indeed overall residential permissions) can be observed to trend to some degree with economic performance, with lower numbers observed during the economic recovery phase in the early to middle part of the last decade.

Figure 3.4 below details units granted planning permission by type, illustrating that multi—unit housing developments have been the most prominent type in recent years. Apartments/private flats have started to become a more substantial proportion of overall permissions in recent years.

This data is sourced from the Central Statistics Office (CSO).

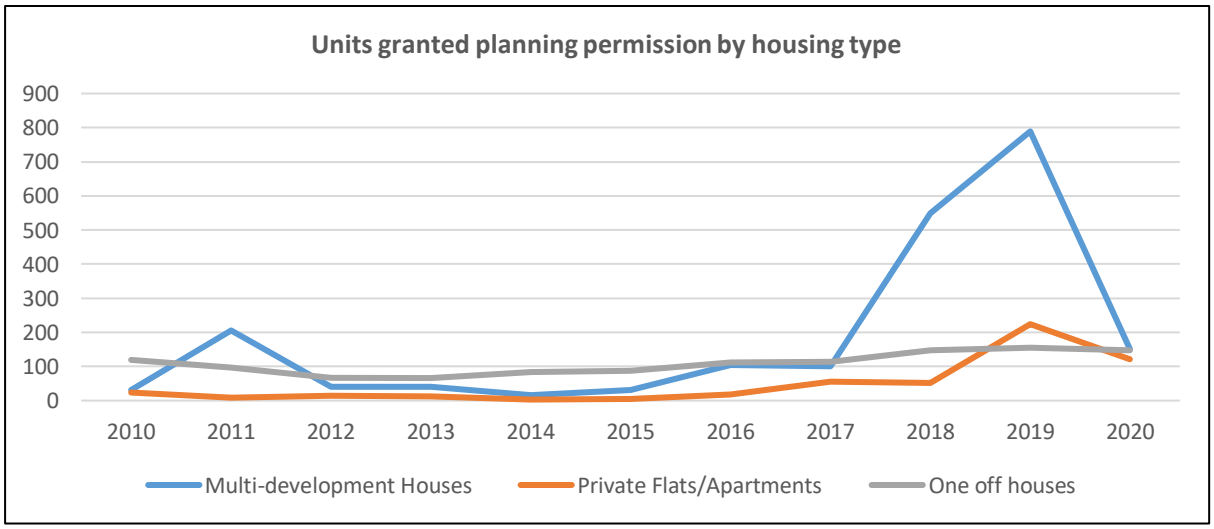


Figure 3.4: Household Size 2016

3.5 Social Housing

The Summary of Social Housing Assessments 2020 brings together information provided by local authorities on households in their functional area that are qualified for social housing support but whose social housing need is not currently being met. It is a point-in-time assessment of the identified need for social housing support across the country.

The summary document notes an increase of 15.8% in the number of households qualifying for social housing support was recorded in Waterford City and County from 2019 to 2020, an increase of 173. This is noted as the largest increase in the country over the period.

The largest cohort of applicants is within the 30-39 age bracket (main applicant) at 365. There were 37 applicants aged 70 +, and 194 applicants aged less than 25.

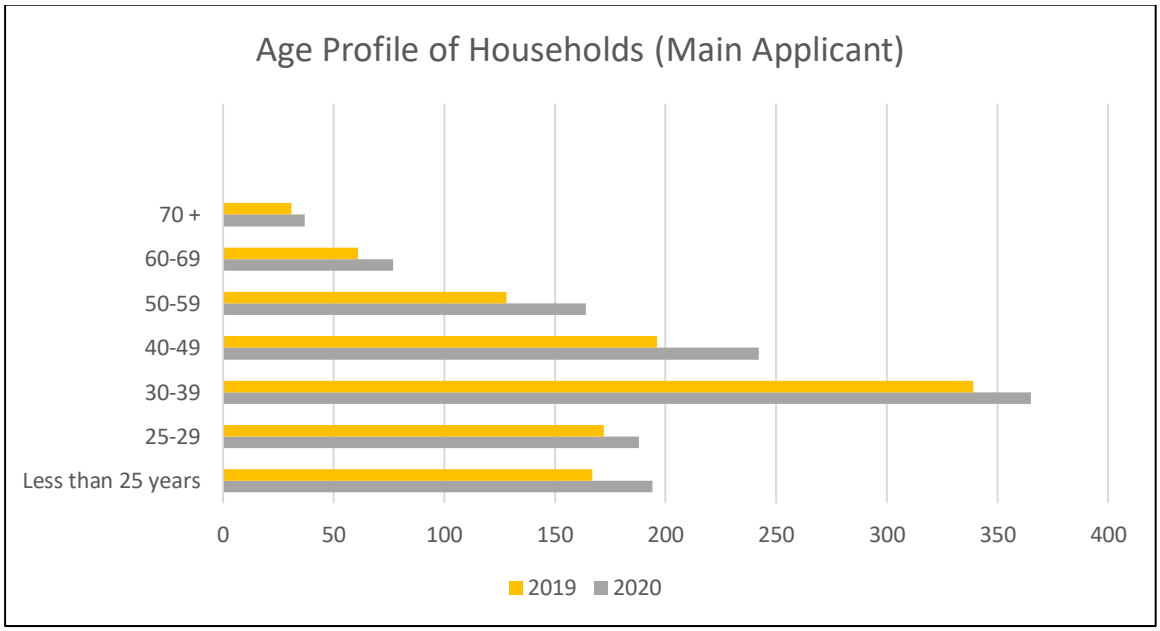


Figure 3.5: Age Profile of Households (Main Applicant)

3.6 Employment Rates

Waterford is located within the South-East NUTS III region which has the highest level of unemployment across Ireland's eight NUTS III regions. The figures for Q3 2020 show a State unemployment level of 7.1% and a level of 7.7% in the South-East Region.

Analysis of Census 2016 reveals that the total number of the Labour Force classed as Unemployed in Waterford is 8,323 and accounts for 15.4% of the labour force within the county. This rate is higher than the State average of 12.9%. This accounts for 2.8% of those unemployed in the State (297,396) and 8.6% of those unemployed in the Southern Regional Area (97,103).

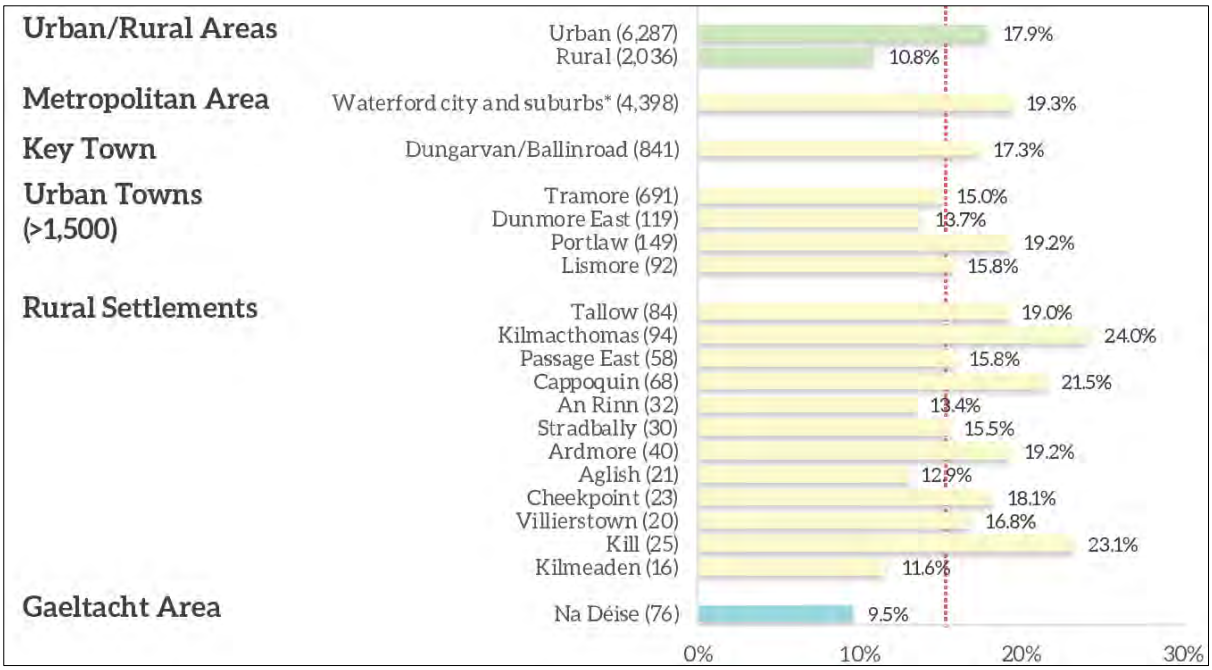


Figure 3.6: Labour Force Unemployed (PES), 2016 (Source: AIRO/CSO)

A socio-demographic indicator profile of Waterford City and County compiled by AIRO (All-Island Research Observatory) in 2020 provides further analysis of the employment situation in the county, noting that the Labour Force Unemployment Rate in Waterford at 15.4% is significantly lower than the Waterford MASP rate of 18%. Figure 3.6, sourced from the AIRO report, compares the labour force unemployment rate across the various tiers of the settlement hierarchy within County Waterford.

Unemployment rates range from 11.6% in Kilmeaden to 24% in Kilmacthomas. Urban areas in Waterford recorded a higher rate of 18.3% (6,287) when compared with rural areas which had a rate of 10.8% (2,036).

Within the MASP area the highest rates of labour force unemployment are in central areas of Waterford City in areas such as Larchville, Kingsmeadow and Poleberry.

4.0 Housing Need Demand Assessment

4.0 Housing Need Demand Assessment

This section of the Housing Strategy includes the determination of housing requirements in Waterford over the lifetime of the development plan. Demographic, economic and social inputs have been examined and utilised to estimate projected population, households and associated housing needs in County Waterford between the 2022 and 2028 lifetime of the plan. The time period that the HNDA covers in this instance aligns with the plan period.

This section builds on the analysis of the current housing context in Section 3 which considered the existing housing stock and composition, housing tenure, planning permissions for housing and the existing social housing stock. Section 4 seeks to project and determine the future housing requirements over the plan period. This section is structured according to the stages outlined below in Table 4.1.

Table 4.1: HNDA Stages - Waterford Housing Strategy 2022-2028	
Stage	
1.	Determination of Annual Population Projections
2.	Determination of Average Household Size and Additional Households Required
3.	Calculation of Estimated Distribution of Household Disposable Incomes
4.	Calculation of Average Annual Household Disposable Income Distribution
5.	Calculation of Average Monthly Household Disposable Income Distribution
6.	Determination of Distribution of Total Anticipated Households
7.	Determination of Distribution of Additional Households
8.	Calculation of Projected House Price Bands
9.	Calculation of Mortgage Capacity of Households
10.	Calculation of Projected Needs for Ownership
11.	Calculation of Ability to Access Private Rental
12.	Summary of Projected Social Housing Needs

Application of NPF population and housing projections into the development plan

Guidance issued under Section 28 of the Planning and Development Act (*Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020))* provides a methodology for the application of NPF population and housing projections into local authority plan processes (Table 1 of the guidelines).

The guidelines state that the identified NPF 50:50 City scenario is the recommended housing demand scenario to be used by planning authorities in their planning functions, and this approach is illustrated in Table 1 within the guidelines and through a number of worked examples.

The Waterford County Development Plan period will run from Q3 2022 – Q2 2028, and the methodology provided in the Section 28 guidelines have been applied to this six-year local authority development plan period. The methodology provided in the guidelines (in addition to the worked examples set out in Appendix 1 of the guidelines) has been utilised in Table 4.2 below to calculate the housing demand for the development plan period.

The projected NPF 50:50 housing demand scenario for County Waterford has been utilised as required by the guidelines. The actual new housing supply from 2017 to Q2 2021 is sourced from CSO completions data, and an assumption/estimation has been made on housing completions up to Q2 2022 in the county as required by the methodology (estimation is based on analysis as discussed further below). The convergence adjustment applied to the methodology (as provided for in Section 28 guidelines) is utilised as the ESRI NPF scenario for Waterford is higher than the ESRI Baseline scenario.

Table 4.2 below calculates the housing demand for the 6 year development plan period, providing a figure of 4,824. The source of the figures utilised is indicated (where applicable). Data from the CSO (including Census 2016), the Department of Housing, Local Government and Heritage (DHLGH), and the Economic and Social Research Institute (ESRI) was utilised as prescribed in the guidelines.

	Waterford City & County Council	**Annual Average Households**	**Total Households**	
A	ESRI NPF scenario projected new household demand 2017 to Plan end year, or quarter (pro rata) - Q2 2028	Total Projection/relevant time period 608 (6,991/11.5)	Total Projection 6,991 [A]	From ESRI Research
B	Actual new housing supply 2017 to - Q2 2022, most recent available year or quarter prior to Plan commencement (estimated future delivery projected based on analysis)	Total completions/relevant time period 402 (2,209/5.5)	Total Completions 2,209 [B]	From CSO Completions data
C	Homeless households (latest data), and unmet demand as at most recent Census	N/A	Total existing unmet demand 164 [C]	From DHLGH and Census
D	**Plan Housing Demand** = Total (A-B+C) (Projected ESRI NPF demand - new completions + Unmet demand)	Plan total demand/6 years 782 (4692/6)	4,946	
E	Potential adjustment 1 to end 2026 portion of plan period to facilitate convergence to NPF strategy (where justified)	Mid-point between ESRI NPF and baseline scenarios to 2026 in lieu of A above	Adjusted Total Demand	
E1	ESRI Baseline scenario projected new household demand 2017, to Q4 2026	576 (5,757/10)	5,757	From ESRI Research
E2	ESRI NPF scenario (50:50) projected new household demand 2027 - Q2 2028	-	990	From ESRI Research
E3	Mid-point between A-E1 (ESRI NPF and Baseline scenarios to Q4 2026)	588 (5,879/10)	(6,991 [A] - 990 [E2] + 5,757 [E1] /2) = 5,879	
E4	**Adjusted Total Plan Demand** calculation based on E2 + E3 in lieu of A above	804 (4,824/6)	990 [E2] + 5,879 [E3] - 2,209 [B] + 164 [C] = **4,824**	

Table 4.2: Methodology for the application of NPF population and housing projections into Waterford City & County Development Plan 2022-2028

As noted above, the adjustment allowed for in the S.28 guidelines *'Housing Supply Target Methodology for Development Planning'* have been applied to facilitate convergence to the NPF strategy (i.e. Adjustment 1).

Housing supply data was available to Q2 2021 from the CSO and a projection was undertaken to Q2 2022 to calculate the actual new supply figure (Row B) from 2017 to Q2 2022. Projections for future housing delivery are based upon analysis of available completion data in the county, the restart of

construction following Covid 19, analysis of commencement notices in the county and forecasts provided by the ESRI in their Summer 2021 Quarterly Economic Commentary[4].
The ESRI have revised their forecasts upwards from their spring forecast of 15,000 new dwelling completions in 2021 and 16,000 in 2022, stating the following: *"Overall, given that construction activity resumed partly in mid-April and in full by May, we revise our previous forecast regarding new dwelling completions and now expect that a total of 18,000 new dwellings will be delivered in 2021, while for 2022 we forecast a return to the pre-pandemic levels with 21,000 completions".* The ESRI also note that a total of 1,530 commencements were registered in the first two months of 2021, almost 65 per cent less compared to the first two months of 2020.

CSO completions data (available at the time of writing) provides the total for the county from 2017 to Q2 2021 as 1,832. Projections from this point out to Q2 2022 provide an additional 377 units providing a total new housing supply of 2,209 from 2017 - Q2 2022. The development plan housing demand figure has informed this Housing Strategy and further calculations outlined herein.

4.1 Determination of Annual Population Projections

As noted herein, the Implementation Roadmap for the National Planning Framework published in July 2018 provides transitional population projections as a range for each county. It plots a growth trajectory set approximately mid-way between what is currently being planned for constituent statutory County / City Development Plans if projected forward to 2031, and the more likely evidence based and nationally coherent projected scenario to 2031 and 2040. These 'adjusted' transitional figures apply to 2026 and will also inform the period to 2031.

Section 28 Planning Guidelines (*Housing Supply Target Methodology for Development Planning)* released in December 2020 note that the '*established NPF Roadmap population projections for each county continue to be the population parameters for local authority development planning processes. City or County development plans must therefore plan for the identified population growth within these estimates and use them as the basis for strategic decision-making in their development plan process, including its core strategy, settlement strategy and housing policies'.*

In the case of County Waterford, the roadmap provides a population projection of 132,000-135,000 for 2026, and 137,000-144,000 for 2031. These transitional population projections have been rounded to the nearest 500 persons and expressed as a range with 20% variation.

South-East	2016 Population	2026 Projection	2031 Projection
Waterford	116,000	132,000-135,000	137,000-144,000
Wexford	149,000	163,000-166,000	169,000-172,500
Kilkenny	99,000	108,000-110,000	112,000-114,500
Tipperary SR	88,500	96,000-98,000	99,500-102,000
Carlow	57,000	62,000-63,000	64,000-65,500
Subtotal	509,500	561,000-572,000	581,500-598,500

Table 4.3: Transitional Regional and County Population Projections to 2031 (Source: Implementation Roadmap for the National Planning Framework, 2018).

[4] K. McQuinn, K., O'Toole, C., Kostarakos, I., and Coffey, C. (2021). Quarterly Economic Commentary - Summer 2021. Economic and Social Research Institute (ESRI).

The Regional Spatial and Economic Strategy notes that between 1996 and 2016, Ireland's growth rate was approximately 7.5%. A socio-demographic indicator profile of Waterford City and County compiled by AIRO (All-Island Research Observatory) in 2020 notes that Waterford's population has grown consistently and steadily since 1996, with an increase of 22.7% (21,496) observed over twenty years (1996-2016). Growth rates over previous decades have been much lower at 8.5% between 1979 and 1996, and 12.9% between 1971 and 1979. Analysis of census data reveals the population of County Waterford grew by 5.4% (5,834) from 2006 to 2011, with a marked slowdown in growth to 2.1% (2,381) in the following intercensal period (2011-2016) corresponding with a period of national economic contraction experienced post 2008. The historical growth figures provide some context for the determination of future population projections.

The ESRI research paper titled *'Regional Demographics and Structural Housing Demand at a County Level, December 2020'*, funded by the Irish Department of Housing, Local Government and Heritage (under the collaborative research programme between the Department and the ESRI) provides detailed county level population projections to 2040, and is referred to in Circular Letter Housing 14/2021 issued on the 14th of April 2021, and accompanying document 'Guidance on the Preparation of a Housing Need and Demand Assessment'.

The guidelines issued in April 2021 state that in the case of Development Plans under preparation at the time of issue of the guidance, the methodology outlined in the December 2020 'Housing Supply Target Methodology for Development Planning' guidelines should be utilised to determine annual housing demand for the 6 years of the Plan.

This methodology requires the utilisation of the NPF 50:50 City scenario which is broadly consistent with the National Planning Framework strategy and consequently, the 2018 NPF 'Roadmap' document and the population parameters specified therein. Section 28 guidelines (*Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020))* state that the '*established NPF Roadmap population projections for each county continue to be the population parameters for local authority development planning processes. City or County development plans must therefore plan for the identified population growth within these estimates and use them as the basis for strategic decision-making in their development plan process, including its core strategy, settlement strategy and housing policies'.*

Therefore, the identified population growth targets for County Waterford outlined in the NPF Implementation Roadmap have been utilised in this Housing Strategy and HNDA. Utilising population growth scenarios that align with NPF targets, the future population of County Waterford was estimated annually out to 2026 and 2031. The NPF population projections were availed of to develop an interpolation of the required increase per annum for County Waterford from the baseline year 2016 (Census) to NPF target years 2026 and 2031. This allowed for the determination of annual population projections for the development plan period.

The projected population growth in County Waterford throughout the plan period and beyond is outlined in Table 4.4 below. The high end of the NPF population projections have been utilised for 2026 and 2031.

Year	Population Total	Source	Percentage Increase	Annual Projected Population Increase	Total Population Increase 2022 – 2028
2006	107,961	Census	-		
2011	113,795	Census	5.40%		
2016	116,176	Census	2.09%		
2017	118,058		1.62%	1882	
2018	119,940		1.59%	1882	
2019	121,822		1.57%	1882	
2020	123,704		1.54%	1882	
2021	125,586		1.52%	1882	
2022	127,491		1.52%	1905	
2023	129,401		1.50%	1910	
2024	131,306		1.47%	1905	
2025	133,151		1.41%	1845	
2026	135,000	* NPF 'High' Projected	1.39%	1849	
2027	136,826		1.35%	1826	
2028	138,628		1.32%	1802	13,042
2029	140,420		1.29%	1792	
2030	142,195		1.26%	1775	
2031	144,000	* NPF 'High' Projected	1.27%	1805	

Table 4.4: Projected population growth in County Waterford

4.2 Determination of Average Household Size and Additional Households Required

This stage determines the additional increase in households per annum over the Development Plan period based on the application of an average household size for the projected population established in Stage 4.1 above.

The Census 2016 results indicate that County Waterford has a population to household ratio of 2.67, compared to state average of 2.75. However, the NPF states that this is expected to decline to around 2.5 by 2040, while also acknowledging that household sizes in urban areas tend to be smaller than in the suburbs or rural parts of the country. In line with this projected trend, a graduated average household size is utilised within this plan.

The projected housing demand for the 6 year development plan period as calculated in Table 4.2 above is 4,824, providing an annual average housing demand for County Waterford of 804 units (as shown in Table 4.5). This average has been utilised in projecting the annual household numbers, albeit a higher number of units is anticipated in the post-Covid 19 recovery phase in 2022-2024.

Housing supply data was available for 2017 to 2020 from the CSO, and this data was used to populate the table below (No. Anticipated Houses Per Annum). Census 2016 reveals that the number of households in County Waterford is 43,549. As noted above, projections of future housing delivery are based upon analysis of available completion data in the county, the restart of construction following Covid 19, analysis of commencement notices in the county and forecasts provided by the ESRI.

The Waterford County Development Plan period will run from Q3 2022 – Q2 2028. Table 4.5 has been structured to correspond with this plan period. The ESRI forecast a total of 18,000 new dwellings will be delivered in 2021, and 21,000 in 2022. Based on these expected trends in housing delivery and a ramping period post Covid-19, housing delivery in County Waterford is expected to be highest in 2023 and 2024 with a marginal decrease in subsequent years.

Year	Population Total	No. of Households (Private)	Average Household Size	No. Anticipated Houses Per Annum	Total Anticipated Houses between Q3 2022 - Q2 2028	Average Anticipated Houses Per Annum Between Q3 2022 - Q2 2028
2006	107,961					
2011	113,795					
2016	116,176	43,549	2.67			
2017	118,058	43,829	2.69	280		
2018	119,940	44,255	2.71	426		
2019	121,822	44,699	2.72	444		
2020	123,704	45,179	2.73	480		
2021	125,586	45,527	2.76	348		
2022 (H1)	126,539	45,364	2.79	185		
2022 (H2)	127,491	45,991	2.77	464		
2023	129,401	46,707	2.77	716		
2024	131,306	47,542	2.76	835		
2025	133,151	48,348	2.75	806		
2026	135,000	49,140	2.74	792		
2027	136,826	49,930	2.74	790		
2028 (H1)	137,727	51,095	2.69	421	4,824	804
2028 (H2)	138,628	51,695	2.68	340		
2029	140,420	52,623	2.66	761		
2030	142,195	53,551	2.65	758		
2031	144,000	54,479	2.64	755		

Table 4.5: Projected households over the plan period

As shown in Table 4.5, the average household size is thus projected to be 2.69 at the end of the plan period (2028). The number of households in County Waterford is expected to increase to 51,095 by Q3 2028.

4.3 Calculation of Estimated Distribution of Household Disposable Incomes

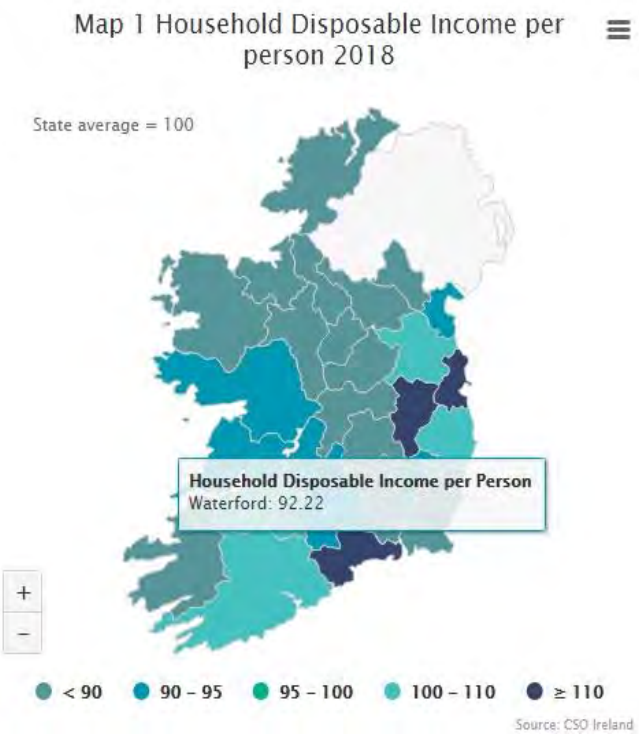
This stage calculates the estimated distribution of household disposable incomes for each of the 10 household deciles in 2016. Disposable income is the amount of income, after tax is deducted, that is available for spending and saving. It provides an important measure of housing affordability in an area i.e. the ability of a household to purchase their own home.

The CSO's Household Budget Survey (2015-2016) provides weekly and annual disposable incomes at national level, and this has been adjusted to county level based on application of "inflator/deflator" rate.

A deflator of 92.22 has been applied to County Waterford based on the CSO report on County Incomes and Regional GDP from 2018.

The data is divided into ten income deciles to represent the proportion of households in County Waterford within each decile during the survey.

Table 4.6 indicates that in 2017 after tax, about one third of the households in County Waterford (i.e. the first three deciles) have an average annual disposable income of up to €23,972.



Income Range	Average Weekly Disposable Income (State) (€) (2009-2010)	Average Weekly Disposable Income (State) (€) (2015-2016)	% Change from 2009-2010 to 2015-2016	Assumed Annual % Income Increase from 2010 to 2016	Adjusted Average Weekly Disposable Income (State) (€) (2017)	% of Households in Each Category (State)	Average Annual Disposable Income (State) (€) (2017)	Waterford County Deflator	Waterford Average Annual Disposable Income (€) (2017)	No. of Households in Waterford (2016)
1st Decile	188.91	197.40	4.49%	0.90%	199.18	9.83%	10,357.18	0.922	9551.39	4,281
2nd Decile	300.98	324.40	7.78%	1.56%	329.46	10.57%	17,131.95	0.922	15799.09	4,603
3rd Decile	431.28	465.86	8.02%	1.60%	473.31	10.47%	24,612.32	0.922	22697.48	4,560
4th Decile	549.20	593.56	8.08%	1.62%	603.18	10.44%	31,365.13	0.922	28924.93	4,547
5th Decile	669.46	725.85	8.42%	1.68%	738.04	10.25%	38,378.30	0.922	35392.47	4,464
6th Decile	802.56	865.88	7.89%	1.58%	879.56	9.94%	45,737.17	0.922	42178.82	4,329
7th Decile	972.03	1026.46	5.60%	1.12%	1037.96	9.62%	53,973.73	0.922	49774.57	4,189
8th Decile	1183.82	1215.55	2.68%	0.54%	1222.11	9.65%	63,549.93	0.922	58605.74	4,202
9th Decile	1472.66	1473.25	0.04%	0.01%	1473.40	9.61%	76,616.66	0.922	70655.88	4,185
10th Decile	2289.38	2229.05	-2.64%	-0.53%	2217.24	9.62%	115,296.27	0.922	106326.22	4,189
,Total						**100.00%**				**43,549**

Table 4.6: Calculation of the distribution of disposable household incomes (annual and weekly) during the baseline year

4.4 Calculation of Average Annual Household Disposable Income Distribution

This stage provides the estimated distribution of annual household disposable incomes for each of the 10 household deciles throughout the plan period. To inform the forward projection of affordability in County Waterford during the plan period, the baseline income has been inflated annually using forecasted growth rates in relation to Gross Domestic Product (GDP). Table 4.7 above provides the Average Annual Disposable Income for 2017, calculated by applying the Waterford County deflator of 0.92.

The forecasted GDP rates have regard to the ongoing Covid-19 pandemic and the risk highlighted by the ESRI that further economic impacts might occur once income supports are withdrawn[5]. The CBI note that the '*Covid-19 pandemic will remain the main determinant of the economic outlook this year and in 2022*[6] in their Quarterly Bulletin (QB2) published in April 2021.

Based on the current economic outlook (including impacts of Covid-19 and Brexit) and the latest forecasted GDP growth rates (from the Department of Finance, Central Bank and the ESRI), GDP growth of 1.7% is applied for 2021 and a conservative forecasted GDP growth rate of 2.9% has been applied from 2022 onwards. The key outputs of this are shown are the forecasted annual average disposable household income for each decile shown in Table 4.7 below.

	2020	2021	2022	2023	2024	2025	2026	2027	2028
% Growth	**0.8%**	**1.7%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**
1st Decile	10844	11029	11349	11678	12016	12365	12723	13092	13472
2nd Decile	17938	18243	18772	19316	19876	20453	21046	21656	22284
3rd Decile	25770	26208	26968	27750	28555	29383	30235	31112	32014
4th Decile	32841	33399	34367	35364	36390	37445	38531	39648	40798
5th Decile	40184	40867	42052	43271	44526	45818	47146	48513	49920
6th Decile	47889	48703	50115	51569	53064	54603	56186	57816	59492
7th Decile	56513	57473	59140	60855	62620	64436	66305	68227	70206
8th Decile	66539	67671	69633	71652	73730	75868	78069	80333	82662
9th Decile	80221	81585	83950	86385	88890	91468	94121	96850	99659
10th Decile	120720	122772	126333	129996	133766	137645	141637	145744	149971

Table 4.7: Calculation of Average Annual Household Disposable Income Distribution (€) in County Waterford

[5] https://www.esri.ie/system/files/publications/QEC2020WIN_0.pdf
[6] https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/qb-archive/2021/quarterly-bulletin-q2-2021.pdf?sfvrsn=6

4.5 Calculation of Average Monthly Household Disposable Income Distribution

This stage provides the estimated distribution of monthly household disposable incomes for each of the 10 household deciles throughout the plan period. This has been based on the same information as Stage 4.4 (i.e. Calculation of Average Annual Household Disposable Income Distribution) and scaled to provide the monthly (rather than annual) estimates of disposable income per household in each decile.

	% Households	2020	2021	2022	2023	2024	2025	2026	2027	2028
% Growth		**0.8%**	**1.7%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**	**2.9%**
1st Decile	**9.83%**	904	919	946	973	1001	1030	1060	1091	1123
2nd Decile	**10.57%**	1495	1520	1564	1610	1656	1704	1754	1805	1857
3rd Decile	**10.47%**	2148	2184	2247	2313	2380	2449	2520	2593	2668
4th Decile	**10.44%**	2737	2783	2864	2947	3032	3120	3211	3304	3400
5th Decile	**10.25%**	3349	3406	3504	3606	3711	3818	3929	4043	4160
6th Decile	**9.94%**	3991	4059	4176	4297	4422	4550	4682	4818	4958
7th Decile	**9.62%**	4709	4789	4928	5071	5218	5370	5525	5686	5851
8th Decile	**9.65%**	5545	5639	5803	5971	6144	6322	6506	6694	6889
9th Decile	**9.61%**	6685	6799	6996	7199	7408	7622	7843	8071	8305
10th Decile	**9.62%**	10060	10231	10528	10833	11147	11470	11803	12145	12498

Table 4.8: Calculation of Average Monthly Household Disposable Income Distribution (€) in County Waterford

4.6 Determination of Distribution of Total Anticipated Households

This stage provides the estimated distribution of total household units for each of the 10 household deciles throughout the plan period. The number and distribution of total households per decile throughout the plan period has been estimated from the distribution of housing units in the State from the Household Budget Survey[7]. This has been reflected upon in order to determine the projected number of private households per decile per year during the plan period.

Specifically, this has been based on the outputs of Stage 4.2 (i.e. Determination of Average Household Size and Additional Households Required) in relation to number of private households per year during the plan period as well as the distribution of housing units in the State from the Household Budget Survey.

[7] CSO (2017) Household Budget Survey 2015-2016 - Table HS029: Households in sample by deciles and year.

Table 4.9 identifies the distribution of total households across each of the ten deciles during the plan period.

	% Households	2021	2022	2023	2024	2025	2026	2027	2028
1st Decile	**9.83%**	4475	4539	4631	4723	4814	4905	4995	5086
2nd Decile	**10.57%**	4812	4881	4980	5079	5177	5274	5371	5469
3rd Decile	**10.47%**	4767	4835	4933	5031	5128	5224	5320	5418
4th Decile	**10.44%**	4753	4821	4918	5016	5113	5209	5305	5402
5th Decile	**10.25%**	4667	4733	4829	4925	5020	5115	5209	5304
6th Decile	**9.94%**	4525	4590	4683	4776	4868	4960	5051	5143
7th Decile	**9.62%**	4380	4442	4532	4622	4711	4800	4888	4978
8th Decile	**9.65%**	4393	4456	4546	4637	4726	4815	4904	4993
9th Decile	**9.61%**	4375	4438	4527	4617	4706	4795	4883	4973
10th Decile	**9.62%**	4380	4442	4532	4622	4711	4800	4888	4978
Total	**100.00%**	**45527**	**46176**	**47111**	**48047**	**48975**	**49899**	**50816**	**51744**

Table 4.9: Distribution of total households per decile (No. Households) in County Waterford

4.7 Determination of Distribution of Additional Households

This stage provides the estimated distribution of additional anticipated household units for each of the 10 household deciles throughout the plan period. The number of additional anticipated households per decile has been estimated throughout the plan period. Table 4.10 identifies the distribution of additional anticipated households across each of the ten deciles during the plan period.

	% Households	2022 (H2)	2023	2024	2025	2026	2027	2028 (H1)
1st Decile	**9.83%**	46	70	82	79	78	78	41
2nd Decile	**10.57%**	49	76	88	85	84	84	44
3rd Decile	**10.47%**	49	75	87	84	83	83	44
4th Decile	**10.44%**	48	75	87	84	83	82	44
5th Decile	**10.25%**	48	73	86	83	81	81	43
6th Decile	**9.94%**	46	71	83	80	79	79	42
7th Decile	**9.62%**	45	69	80	78	76	76	41
8th Decile	**9.65%**	45	69	81	78	76	76	41
9th Decile	**9.61%**	45	69	80	77	76	76	40
10th Decile	**9.62%**	45	69	80	78	76	76	41
Total	**100.00%**	**464**	**716**	**835**	**806**	**792**	**790**	**421**

Table 4.10: Distribution of additional households per decile (No. Households) in County Waterford

4.8 Determination of Projected House Price Bands

Property price transaction data in County Waterford for 2020 has been analysed as part of the exercise to project house price bands. The Register includes new and second-hand properties. 2020 has been chosen to reflect the current market context and to understand latest house pricing and distribution of residential units per price band. The analysis carried out (based on the Property Price Register) reveals there were 1,272 transactions in County Waterford in 2020 across the eight price bands. For the purpose of this exercise, any properties that were sold for below market price have been omitted. In 2020, there were a total of 111 residential properties that sold for below market price in Co. Waterford. The following analysis of house price trends and historic transactional housing market data allows for a calculation of projected house price bands and projected annual price increase or decrease based on the percentage split of the eight price bands.

Price Bands / Value Distribution (2020)	Number of Transactions	% Total
0 – 100,000	219	17%
100,001 – 150,000	247	19%
150,001 – 200,000	244	19%
200,001 – 250,000	252	20%
250,001 – 300,000	133	10%
300,001 – 350,000	59	5%
350,001 – 400,000	49	4%
400,001+	69	5%
Total	**1,272**	**100%**

Table 4.11: Property Price Transaction Data for 2020 in County Waterford[8]

It is noted that c.55% of the property transactions in 2020 were in the sub €200,000 price range, with c.9% of properties selling for more than €350,000. Having considered the most recent house price activity in the County (i.e. 2020), it is important to review historical trends in property price fluctuation to provide greater insight into potential house price change over the development plan period. This analysis of historic house prices included the following information sources:

- Table HPA02 2011 – 2020 - (CSO Residential Property Transactions Data)[9],
- Table HPM02 2011 – Q1 2021 - (CSO Residential Property Transactions Data)[10,]
- Residential Property Price Register 2011 - Q1 2021[11], and
- Daft Quarterly Reports 2011 - Q1 2021.

[8] Residential Property Price Register (2020) Transactional data for 2020, https://www.propertypriceregister.ie/website/npsra/pprweb.nsf/PPR?OpenForm.
[9] CSO (2020) Residential Property Transactions Data – Table HPA02 (2011–2019), https://data.cso.ie/table/HPA02.
[10] CSO (2020) Residential Property Transactions Data – Table HPM02 2011 –2020, https://data.cso.ie/table/HPM02.
[11] Residential Property Price Register (2011-2020), https://www.propertypriceregister.ie/website/npsra/pprweb.nsf/PPR?OpenForm.

The post 2008 recession and subsequent economic contraction resulted in average price decreases of c.16.7% and 3.6% in County Waterford in 2011 and 2012. The subsequent period of economic growth has resulted in large variances in house prices but in the main a trend of sustained increase is noted from 2014 onwards. Given the large variations observed post-recession and during the subsequent recovery and periods of growth, the average house price change over the period requires context and input from other recent economic data in order to provide a reliable basis for predicting future changes in average house prices from 2022 onwards. In addition, the impact of the COVID-19 pandemic (discussed further below) is now evident with the availability of data for 2020 and Q1 2021 and must be factored into the prediction of future house price trends.

The historic house price data for County Waterford allows for understanding of the local market context and how broader economic shifts and macroeconomic trends transfer locally. Data from the Residential Property Price Register, the CSO and Daft has been analysed and year on year trends (mean percentage change) have been presented below in Table 4.12.

Year	RPPR	CSO HPA02	CSO HPM02	Daft	Average
2011 (Base Year)	-	-	-		
2012	-15.4%	-17.2%	-18.4%	-15.8%	-16.7%
2013	-6.6%	0.4%	0.0%	-8.2%	-3.6%
2014	2.5%	11.5%	11.3%	5.7%	7.8%
2015	5.5%	5.2%	4.9%	15.1%	7.7%
2016	7.3%	11.8%	12.6%	8.5%	10.0%
2017	12.5%	9.1%	9.3%	6.9%	9.4%
2018	13.6%	13.0%	12.2%	7.4%	11.6%
2019	9.1%	7.2%	7.3%	2.4%	6.5%
2020	4.3%	6.1%	6.1%	5.1%	5.3%
2021 (Q1)	0.9%	-	2.0%	8.7%	3.9%

Table 4.12: Historic house price trends (Mean % Change) in County Waterford (Source: RPPR, CSO, Daft)

In terms of the data presented in Table 4.12, residential property transactions data available from the CSO (CSO Table HPA02) provided a mean sale price for each year of the 2012-2020 period, with 2011 used as the Base Year. Data from 3 sources was available for Q1 2021 at the time of writing. Analysis of the Residential Property Price Register reveals a 0.9% increase in Q1 2021 on the mean figure from 2020.

CSO Table HPM02 indicates a 6.1% increase in 2020 on the 2019 average, and a 2% increase in Q1 2021 on the 2020 average. Data from Daft indicates a 5.1% increase in 2020 on the 2019 average. The Daft.ie House Price Report for Q1 2021 includes the following data for Waterford:

Waterford County	Waterford City
Quarter-on-Quarter change: 2.3%	Quarter-on-Quarter change: 3.0%
Year-on-Year change: 6.1%	Year-on-Year change: 11.4%

The average year on year change was 8.7% as of Q1 2021 in Waterford based on the Daft House Price Report. The average increase based on the 3 sources for Q1 2021 is 3.9%.

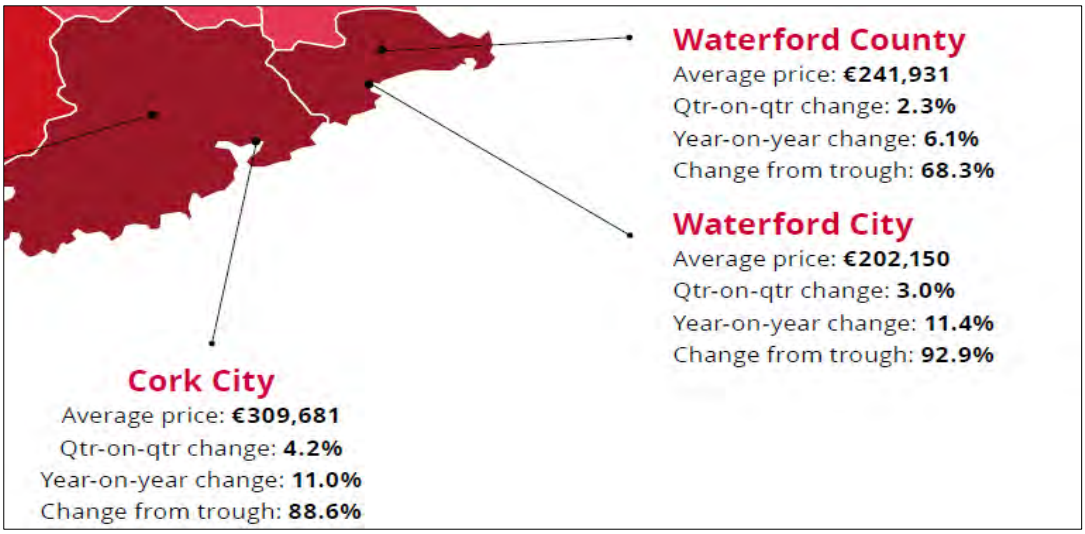


Figure 4.1: Daft House Price Report - Q1 2021 – House Price Data Waterford

The Daft.ie House Price Report for Q2 2021 was published on the 28th of June 2021. Figure 4.2 below provides average list prices and year on year change as set out in the report. The average year on year change was 21.2% in Waterford County and 14.8% in Waterford City, with average list prices of €266,506 and €199,562 respectively. The report notes price rises in all markets and states the '*largest price differences are in rural regions and counties with Longford, Wexford, Waterford, Kerry and Roscommon all seeing price rises above 20% year on year'*.[12]

Figure 4.2: Daft House Price Report – Q2 2021 – House Price Data Waterford

The Daft.ie House Price Report for Q2 2021 includes a snapshot of asking prices nationwide and annual change across a number of house types. The snapshot illustrates that prices in Waterford City have increased across all house types listed in the last year with the largest percentage increase seen in 3 bed semi-detached units and 2 bed terraced units.

[12] The Daft.ie House Price Report – 2021 Q2

		1 bed apartment		2 bed terraced		3 bed semi-d		4 bed bungalow		5 bed detached	
OTHER CITIES	Cork City	€136	23.0%	€177	28.6%	€262	28.4%	€437	19.8%	€535	27.4%
	Galway City	€128	20.5%	€167	26.1%	€247	25.8%	€412	17.4%	€505	24.8%
	Limerick City	€103	23.6%	€135	29.2%	€200	29.0%	€333	20.3%	€408	28.0%
	Waterford City	€89	23.6%	€116	29.3%	€172	29.0%	€287	20.4%	€351	28.0%
MUNSTER	Waterford Co	€100	14.7%	€124	23.2%	€177	24.2%	€346	27.3%	€347	21.4%
	Kerry	€85	13.7%	€105	22.1%	€150	23.1%	€294	26.1%	€295	20.3%
	Cork Co	€97	10.4%	€121	18.5%	€172	19.5%	€338	22.5%	€339	16.8%
	Clare	€81	9.6%	€101	17.8%	€143	18.7%	€281	21.6%	€282	16.0%

Figure 4.3: Asking Prices Nationwide (Source: Daft House Price Report – Q2 2021)

On balance, the data points to the potential that COVID-19 had a moderate deflating effect on house price increases in County Waterford in 2020 and 2021, having regard to the higher growth trends observed in previous years. House prices have increased nonetheless, and reports indicate a strong supply side constraint. Anecdotal evidence indicates that an increase in remote working/more flexible working arrangements during the pandemic is leading to strong demand for housing outside of the larger cities and towards more rural areas.

The Daft.ie House Price Report notes that supply shortages have led to rising house values stating that '*the net result of strong demand and very weak supply can be seen in availability, the stock of homes on the market at any point in time. There were fewer than 12,000 homes available to buy on March 1 this year, down 40% on the already very low level seen a year ago. There is no precedent for availability this tight in the post-Celtic Tiger housing market'.* The report notes just over 3,600 properties on the market in Munster on March 1, down from 6,066 on the same date a year ago.

In terms of considering the future impact of Covid 19 on the housing market and house price trends, research by the ESRI[13] published in May 2020 considers different economic scenarios and their corresponding potential impact on house prices. Their baseline scenario sees house prices increasing by just over 3 per cent in 2021. The report concludes by noting supply shortages may put additional upward pressure on house prices when the domestic economy recovers.

Further research by the ESRI[14] on the Irish property market published on the 30th September 2020 states:

'COVID-19 has already had an unprecedented impact on the Irish economy and this has extended to the housing and rental markets. While government support schemes are likely to keep incomes stable in the near term, as these measures are unwound and the labour market struggles to recover, incomes are likely to fall, putting downward pressure on housing demand'.

[13] Allen-Coghlan M. and K. McQuinn (2020). 'Property prices and COVID-19 related administrative closures: What are the implications?' Working Paper No. 661, Economic and Social Research Institute (ESRI). Available online at: https://www.esri.ie/publications/property-prices-and-covid-19-related-administrative-closures-what-are-the-implications.

[14] Allen-Coghlan, M., C. O'Toole and K. McQuinn (2020). '*Assessing the impacts of COVID-19 on the Irish property market: An overview of the issues*', Special Article, *Quarterly Economic Commentary*, Economic and Social Research Institute (ESRI). Available online at: https://www.esri.ie/publications/assessing-the-impacts-of-covid-19-on-the-irish-property-market-an-overview-of-the.

The report by the ESRI notes also that the COVID-19 support measures introduced have insulated the housing market to some extent, however the decline in the number of housing completions will lead to some supply side constraints. Some demand side impact is also pointed to by the ESRI[15] in 2021 with the phasing out of the Pandemic Unemployment Payment (PUP) and the Temporary COVID-19 Wage Subsidy Scheme (TWSS).

A further complication is noted in the medium-long term with the potential increase in remote working impacting the structural demand for housing at both a national and regional level, with the potential that a broader distribution of population occurs leading to house price increases in rural areas, with potential impacts for County Waterford.

The Society of Chartered Surveyors Ireland (SCSI) published their Annual Residential Property Review & Outlook for 2021[16] on the 18th of January which forecasts price increases ranging from 3% in Dublin to 5% in Munster. The SCSI note price expectations are underpinned by lack of supply and economic performance. In further support of potential price increases in counties such as Waterford, the report notes the increase in home working is driving higher interest and prices in the regions.

To further inform potential house price change over the development plan period, projected inflation rates have been examined and used to predict average annual price increases. Data from Statista notes the inflation rate in Ireland in 2019 amounted to 0.88, turning negative in 2020 at – 0.2%[17]. Ireland's inflation rate is forecast to stabilize over the coming years at around two percent.

In relation to the distribution of house price bands, transaction data from 2020 has been utilised to inform the distribution reflected in Table 4.13. 55% of the property transactions in 2020 were in the sub €200,000 price range, with c.9% of properties selling for more than €350,000. This information has supported the calculation of projected house price bands.

Table 4.12 indicates an average price increase of 5.3% in 2020 and 3.9% in Q1 2021 in County Waterford. With the relaxation of Covid-19 restrictions, price increases are expected to increase further in 2021 and a 5% increase has been selected for the purposes of modelling projected house price bands. In Table 4.13 below, market changes to the end of the plan period have been factored in, including a projected annual increase in average house prices of 4% (in 2022) and 4% thereafter (from 2022 onwards) outlined below. The projected increases are based on analysis of the data outlined above including reports from the ESRI, SCSI and the CSO, and HNDA Guidance from the Department of Housing, Local Government and Heritage which includes a 'Modest Growth' House price scenario of 4% growth.

[15] Ibid., p.5.
[16] Available online at: https://scsi.ie/residential-property-review-and-outlook-2021/
[17] https://www.statista.com/statistics/375229/inflation-rate-in-ireland/

Year	Average Price Increase	1st Band (€)	2nd Band (€)		3rd Band (€)		4th Band (€)		5th Band (€)		6th Band (€)		7th Band (€)		8th Band & Above (€)
2020	5.3%	100000	100001	150000	150001	200000	200001	250000	250001	300000	300001	350000	350001	400000	400001
2021	5.0%	105000	105001	157500	157501	210000	210001	262500	262501	315000	315001	367500	367501	420000	420001
2022	4.0%	109200	109201	163800	163801	218400	218401	273000	273001	327600	327601	382200	382201	436800	436801
2023	4.0%	113568	113569	170352	170353	227136	227137	283920	283921	340704	340705	397488	397489	454272	454273
2024	4.0%	118111	118112	177166	177167	236221	236223	295277	295278	354332	354333	413388	413389	472443	472444
2025	4.0%	122835	122836	184253	184254	245670	245672	307088	307089	368505	368507	429923	429924	491341	491342
2026	4.0%	127749	127750	191623	191624	255497	255498	319371	319373	383246	383247	447120	447121	510994	510995
2027	4.0%	132858	132860	199288	199289	265717	265718	332146	332148	398575	398577	465005	465006	531434	531435
2028	4.0%	138173	138174	207259	207261	276346	276347	345432	345433	414519	414520	483605	483606	552691	552693

Table 4.13: Calculation of Projected House Price Bands (In Euro)

4.9 Calculation of Mortgage Capacity of Households

The following analysis considers housing affordability and determines whether households in each decile can qualify for a mortgage that enables them to purchase a house in the lowest price band, based on the current Central Bank of Ireland (CBI) rules on mortgage lending. These CBI rules include the 90% LTV limit which requires a minimum deposit of 10% before you can get a mortgage and the LTI limit which restricts the amount of money one can borrow to a maximum of 3.5 times gross income.

The model set out below in Table 4.14 establishes, based on these CBI macro-prudential rules outlined above, whether households in County Waterford could qualify for a mortgage that would enable them to purchase a house in the lowest price band under these rules.

If household gross income multiplied by 3.5 is less than 90% of the house value in the lowest projected price band, the household do not qualify for a mortgage that would enable them to purchase a home, and therefore progress to the private rental assessment (Step 11). Those households that can qualify for a mortgage progress to the needs assessment for ownership (Step 10). If households do not qualify for a mortgage and cannot afford private rental they then progress to social and affordable housing.

Table 4.14 outlines that in 2021 the first and second deciles do not have sufficient gross household income to meet the requirements of the CBI rules (i.e. 3.5 times their gross income is less than 90% of the house value in the lowest projected price band). From 2022 onwards, the third decile does not have sufficient income. Therefore, these deciles do not qualify for a mortgage and progress to the private rental calculation (and from there to social and affordable housing if they cannot afford private rental). Those households that can qualify for a mortgage progress to the needs assessment for ownership.

Year	Range	Additional Anticipated HH	Upper Value of Cheapest Price Band	Min LTV (90% of Cheapest House Price)	Maximum LTI (3.5 LTI)	Mortgage Qualification	Additional Anticipated HH That Qualify for a Mortgage	Additional Anticipated HH That Do Not Qualify for a Mortgage
2021	1st Decile	34	105000	94500	39704	No	0	34
	2nd Decile	37			65720	No	0	37
	3rd Decile	36			94560	Yes	36	0
	4th Decile	36			122654	Yes	36	0
	5th Decile	36			154783	Yes	36	0
	6th Decile	35			192659	Yes	35	0
	7th Decile	33			235018	Yes	33	0
	8th Decile	34			287318	Yes	34	0
	9th Decile	33			368396	Yes	33	0
	10th Decile	33			581859	Yes	33	0
	Total	**348**					**277**	**71**
2022	1st Decile	46	109200	98280	40856	No	0	46
	2nd Decile	49			67625	No	0	49
	3rd Decile	49			97302	No	0	49
	4th Decile	48			126211	Yes	48	0
	5th Decile	48			159272	Yes	48	0
	6th Decile	46			198246	Yes	46	0
	7th Decile	45			241833	Yes	45	0
	8th Decile	45			295650	Yes	45	0
	9th Decile	45			379080	Yes	45	0
	10th Decile	45			598732	Yes	45	0
	Total	**464**					**321**	**143**

2023	1st Decile	70	113568	102211	42041	No	0	70
	2nd Decile	76			69587	No	0	76
	3rd Decile	75			100124	No	0	75
	4th Decile	75			129871	Yes	75	0
	5th Decile	73			163891	Yes	73	0
	6th Decile	71			203995	Yes	71	0
	7th Decile	69			248847	Yes	69	0
	8th Decile	69			304224	Yes	69	0
	9th Decile	69			390073	Yes	69	0
	10th Decile	69			616096	Yes	69	0
	Total	**716**					**495**	**221**
2024	1st Decile	82	118111	106300	43260	No	0	82
	2nd Decile	88			71605	No	0	88
	3rd Decile	87			103028	No	0	87
	4th Decile	87			133637	Yes	87	0
	5th Decile	86			168644	Yes	86	0
	6th Decile	83			209911	Yes	83	0
	7th Decile	80			256063	Yes	80	0
	8th Decile	81			313047	Yes	81	0
	9th Decile	80			401385	Yes	80	0
	10th Decile	80			633962	Yes	80	0
	Total	**835**					**577**	**258**
2025	1st Decile	79	122835	110552	44514	No	0	79
	2nd Decile	85			73681	No	0	85
	3rd Decile	84			106016	No	0	84
	4th Decile	84			137512	Yes	84	0
	5th Decile	83			173534	Yes	83	0
	6th Decile	80			215999	Yes	80	0

	7th Decile	78			263489	Yes	78	0
	8th Decile	78			322125	Yes	78	0
	9th Decile	77			413025	Yes	77	0
	10th Decile	78			652347	Yes	78	0
	Total	**806**					**557**	**249**
2026	1st Decile	78	127749	114974	45805	No	0	78
	2nd Decile	84			75818	No	0	84
	3rd Decile	83			109090	No	0	83
	4th Decile	83			141500	Yes	83	0
	5th Decile	81			178567	Yes	81	0
	6th Decile	79			222263	Yes	79	0
	7th Decile	76			271130	Yes	76	0
	8th Decile	76			331467	Yes	76	0
	9th Decile	76			425003	Yes	76	0
	10th Decile	76			671265	Yes	76	0
	Total	**792**					**548**	**244**
2027	1st Decile	78	132858	119573	47134	No	0	78
	2nd Decile	84			78017	No	0	84
	3rd Decile	83			112254	No	0	83
	4th Decile	82			145604	Yes	82	0
	5th Decile	81			183745	Yes	81	0
	6th Decile	79			228708	Yes	79	0
	7th Decile	76			278993	Yes	76	0
	8th Decile	76			341079	Yes	76	0
	9th Decile	76			437328	Yes	76	0
	10th Decile	76			690732	Yes	76	0
	Total	**790**					**546**	**244**

2028	1st Decile	41	138173	124356	48501	No	0	41
	2nd Decile	44			80279	No	0	44
	3rd Decile	44			115509	No	0	44
	4th Decile	44			149826	Yes	44	0
	5th Decile	43			189074	Yes	43	0
	6th Decile	42			235341	Yes	42	0
	7th Decile	41			287084	Yes	41	0
	8th Decile	41			350971	Yes	41	0
	9th Decile	40			450011	Yes	40	0
	10th Decile	41			710763	Yes	41	0
	Total	**421**					**291**	**130**

Table 4.14: Determination of Mortgage Qualification for Household

4.10 Calculation of Projected Needs for Ownership

This section sets out the calculation of the approximate affordable house price for each of the ten deciles per year during the plan period based on the application of the annuity formula. Housing Affordability is associated with disposable income available to a household. An assumed preference for home ownership over rental has been applied as part of this modelling and assessment of needs.

The annuity formula utilised herein is set out in the Model Housing Strategy[18] document published by the Department of the Environment and Local Government (as it was called at the time of publication). This formula determines the maximum affordable house price for each of the income deciles based on a number of variables discussed below. The Annuity Formula is based on the determination of an 'Affordability Threshold', a 'Loan to Value Ratio', an 'Annual Percentage Rate (APR) – Interest Rate', the determination of a 'Monthly Percentage Rate (MPR) - Interest Rate', and the determination of a 'Loan Term (Years/Months)'.

Following this, the calculation of the household surplus and/or deficit per price band has been undertaken with respect to the number of households that can qualify for a mortgage.

Section 93(1) of the Planning and Development Act, 2000, provides an appropriate definition of affordability by setting criteria for an eligible person as a:

'person who is in need of accommodation and whose income would not be adequate to meet the payments on a mortgage for the purchase of a house to meet his or her accommodation needs because the payments calculated over the course of a year would exceed 35 per cent of that person's annual income net of income tax and pay related social insurance'.

Therefore, if housing costs exceed 35% of a household's disposable income (HDI), the housing is deemed to be unaffordable as housing costs consume a disproportionately high percentage of the Household Disposable Income. In addition to a maximum affordability threshold of 35% of HDI, the following key variables have been used for calculation purposes:

- LTV ratio of 0.90,
- Annual interest rate (APR) of 3%,
- Loan term of 25 years.

25 years has been chosen as the loan term given the relative affordability of house prices in Waterford.

This formula therefore determines the maximum affordable house price for each of the ten income deciles as detailed in Table 4.15. Based on this information, the number of households not meeting the affordability criteria can be calculated.

It should be noted, that whilst some of the lower deciles have a maximum affordable house price that is higher than the lowest price band for that year, as outlined in the preceding step, these households would not qualify for a mortgage due to the current Central Bank rules.

[18] DoE&LG "*Part V of the Planning and Development Act, 2000, Housing Supply: A Model Housing Strategy and Step-by-Step Guide*" (December, 2000).

	% Households	2021	2022	2023	2024	2025	2026	2027	2028
1st Decile	**9.83%**	75370	77556	79805	82119	84501	86951	89473	92067
2nd Decile	**10.57%**	124671	128286	132006	135834	139774	143827	147998	152290
3rd Decile	**10.47%**	179106	184300	189644	195144	200803	206627	212619	218785
4th Decile	**10.44%**	228247	234866	241677	248685	255897	263318	270955	278812
5th Decile	**10.25%**	279282	287381	295715	304291	313115	322196	331539	341154
6th Decile	**9.94%**	332833	342485	352417	362637	373154	383975	395110	406569
7th Decile	**9.62%**	392771	404161	415882	427943	440353	453123	466264	479785
8th Decile	**9.65%**	462458	475869	489669	503870	518482	533518	548990	564910
9th Decile	**9.61%**	557545	573714	590352	607472	625089	643216	661870	681064
10th Decile	**9.62%**	839020	863351	888389	914152	940662	967942	996012	1024896

Table 4.15: Approximate affordable house price (€) in County Waterford per decile

The following calculation continues the examination of affordability by assessing housing surplus and/or deficit per price band with regard to the number of households that can qualify for a mortgage. This calculation is based on additional households required, the projected house price bands, the determination of households that can qualify for a mortgage and the calculation of housing affordability. Table 4.16 therefore sets out the housing surplus/deficit per price band.

A surplus in a given price band has been identified where the number of housing units anticipated is greater than the number of households that qualify for a mortgage and have the ability to purchase a home at the upper value of that house price band. A deficit has been identified in a given price band where there are fewer households anticipated compared to the number of households that qualify for a mortgage and have the ability to purchase a home at the upper value of that house price band.

Throughout the plan period, there is generally a housing surplus in the lower price bands and housing deficit in the higher price bands as identified in Table 4.16. However, a sufficient number of houses is anticipated overall as households in the upper price bands can purchase a house in a lower price band.

Additionally, the bottom three deciles from 2022 onwards will not qualify for a mortgage (due to the current Central Bank rules), therefore there will be a sufficient number of houses within County Waterford for those households that qualify for a mortgage and have the ability to purchase a home at the upper value of the lowest house price.

Year	Range	Additional Anticipated HH That Qualify for a Mortgage	Running Total	Affordability Threshold	Household Price Band(s)	Upper Value of Price Band	HH that Qualify for a Mortgage Able to Purchase at Upper Value	% of Housing Units Anticipated per Price Band	Housing Units Anticipated per Price Band	Housing Surplus (+) of Deficit (-) per Price Band)
2021	1st Decile	0	0	75370	1st Band	105000	0	17%	48	48
	2nd Decile	0	0	124671	2nd Band	157500	32	19%	54	22
	3rd Decile	36	36	179106	3rd Band	210000	35	19%	53	18
	4th Decile	36	73	228247	4th Band	262500	35	20%	55	20
	5th Decile	36	108	279282	5th Band	315000	33	10%	29	-4
	6th Decile	35	143	332833	6th Band	367500	30	5%	13	-17
	7th Decile	33	177	392771	7th Band	420000	26	4%	11	-15
	8th Decile	34	210	462458	8th Band	None	N/A	5%	15	-
	9th Decile	33	244	557545						
	10th Decile	33	277	839020						
	Total	**277**						**100%**	**277**	**71**
2022	1st Decile	0	0	77556	1st Band	109200	0	17%	55	55
	2nd Decile	0	0	128286	2nd Band	163800	0	19%	62	62
	3rd Decile	0	0	184300	3rd Band	218400	45	19%	62	16
	4th Decile	48	48	234866	4th Band	273000	46	20%	64	17
	5th Decile	48	96	287381	5th Band	327600	45	10%	34	-11
	6th Decile	46	142	342485	6th Band	382200	41	5%	15	-26
	7th Decile	45	187	404161	7th Band	436800	36	4%	12	-24
	8th Decile	45	232	475869	8th Band	None	N/A	5%	17	-
	9th Decile	45	276	573714						
	10th Decile	45	321	863351						
	Total	**321**						**100%**	**321**	**91**

2023	1st Decile	0	0	79805	1st Band	113568	0	17%	85	85
	2nd Decile	0	0	132006	2nd Band	170352	0	19%	96	96
	3rd Decile	0	0	189644	3rd Band	227136	70	19%	95	25
	4th Decile	75	75	241677	4th Band	283920	72	20%	98	26
	5th Decile	73	148	295715	5th Band	340704	70	10%	52	-18
	6th Decile	71	219	352417	6th Band	397488	63	5%	23	-40
	7th Decile	69	288	415882	7th Band	454272	56	4%	19	-37
	8th Decile	69	357	489669	8th Band	None	N/A	5%	27	-
	9th Decile	69	426	590352						
	10th Decile	69	495	888389						
	Total	**495**						**100%**	**495**	**137**
2024	1st Decile	0	0	82119	1st Band	118111	0	17%	99	99
	2nd Decile	0	0	135834	2nd Band	177166	0	19%	112	112
	3rd Decile	0	0	195144	3rd Band	236221	83	19%	111	28
	4th Decile	87	87	248685	4th Band	295277	85	20%	114	30
	5th Decile	86	173	304291	5th Band	354332	82	10%	60	-22
	6th Decile	83	256	362637	6th Band	413388	75	5%	27	-48
	7th Decile	80	336	427943	7th Band	472443	66	4%	22	-44
	8th Decile	81	417	503870	8th Band	None	N/A	5%	31	-
	9th Decile	80	497	607472						
	10th Decile	80	577	914152						
	Total	**577**						**100%**	**577**	**155**
2025	1st Decile	0	0	84501	1st Band	122835	0	17%	96	96
	2nd Decile	0	0	139774	2nd Band	184253	0	19%	108	108
	3rd Decile	0	0	200803	3rd Band	245670	81	19%	107	26
	4th Decile	84	84	255897	4th Band	307088	83	20%	110	28
	5th Decile	83	167	313115	5th Band	368505	80	10%	58	-22
	6th Decile	80	247	373154	6th Band	429923	73	5%	26	-47
	7th Decile	78	324	440353	7th Band	491341	64	4%	21	-43

	8th Decile	78	402	518482	8th Band	None	N/A	5%	30	-
	9th Decile	77	480	625089						
	10th Decile	78	557	940662						
	Total	**557**						**100%**	**557**	**146**
2026	1st Decile	0	0	86951	1st Band	127749	0	17%	94	94
	2nd Decile	0	0	143827	2nd Band	191623	0	19%	106	106
	3rd Decile	0	0	206627	3rd Band	255497	80	19%	105	25
	4th Decile	83	83	263318	4th Band	319371	82	20%	108	26
	5th Decile	81	164	322196	5th Band	383246	80	10%	57	-22
	6th Decile	79	243	383975	6th Band	447120	72	5%	25	-47
	7th Decile	76	319	453123	7th Band	510994	64	4%	21	-43
	8th Decile	76	395	533518	8th Band	None	N/A	5%	30	-
	9th Decile	76	471	643216						
	10th Decile	76	548	967942						
	Total	**548**						**100%**	**548**	**139**
2027	1st Decile	0	0	89473	1st Band	132858	0	17%	94	94
	2nd Decile	0	0	147998	2nd Band	199288	0	19%	106	106
	3rd Decile	0	0	212619	3rd Band	265717	81	19%	105	24
	4th Decile	82	82	270955	4th Band	332146	123	20%	108	-14
	5th Decile	81	163	331539						
	6th Decile	79	242	395110	5th Band	398575	68	10%	57	-11
	7th Decile	76	318	466264	6th Band, 7th Band	531434	110	8%	46	-63
	8th Decile	76	394	548990	8th Band	None	N/A	5%	30	-
	9th Decile	76	470	661870						
	10th Decile	76	546	996012						
	Total	**546**						**100%**	**546**	**135**

2028	1st Decile	0	0	92067	1st Band	138173	0	17%	50	50
	2nd Decile	0	0	152290	2nd Band	207259	0	19%	57	57
	3rd Decile	0	0	218785	3rd Band	276346	44	19%	56	12
	4th Decile	44	44	278812	4th Band	345432	66	20%	58	-8
	5th Decile	43	87	341154						
	6th Decile	42	129	406569	5th Band	414519	37	10%	30	-6
	7th Decile	41	169	479785	6th Band	483605	33	5%	13	-20
	8th Decile	41	210	564910	7th Band, 8th Band	None	N/A	9%	27	-
	9th Decile	40	251	681064						
	10th Decile	41	291	1024896						
	Total	**291**						**100%**	**291**	**84**

Table 4.16: Calculation of Surplus/Deficit in Housing Available to Additional Households That Qualify For a Mortgage

4.11 Calculation of Ability to Access Private Rental

This section considers the households that cannot afford to access housing through the private rental market (i.e. those households that will not meet the affordability criteria to privately rent a home during the Development Plan period). It considers background information on rental price and demand by unit type within the current rental market in County Waterford.

Data from the Residential Tenancies Board (RTB) has been analysed to understand rental market trends and average rent prices by unit type. This facilitates a projection of estimated rental cost by unit type during the plan period. Based on this and the household income, a calculation of the number of households who don't meet the affordability criteria to privately rent a home has been undertaken.

The key inputs to this calculation therefore include disposable income per decile (established in Section 4.3), historical trends in rental prices, and the projected market rents per unit type (set out below). The demand for a particular unit type has been factored to estimate what type of unit the additional anticipated households are more likely to prefer to rent. If a household does not have sufficient income to meet the private rental rates for a unit in a given year (i.e. 35% of their disposable income is less than average market rent), they cannot afford the rent by themselves. Given that those households who do not qualify for a mortgage also cannot afford private rent, these households require social housing supports.

Year	One bed	Two bed	Three bed	Four plus bed	All bedrooms	YOY Change
	€	€	€	€	€	%
2020	579	747	773	1056	804	1%
2019	604	766	823	1018	798	9%
2018	538	704	757	948	732	9%
2017	469	657	692	893	670	8%
2016	480	601	628	844	620	7%
2015	449	545	611	739	580	N/A
Average	**520**	**670**	**714**	**916**	**701**	

Table 4.17: Historic rental prices by unit type in County Waterford

Trends in rental price change can be observed year on year from the data in Table 4.17 and these trends have been utilised in conjunction with other economic data considered in Section 4.8 to project annual growth rates in average rental prices of different unit types in the county. The projected rental price by unit type during the plan period is outlined in Table 4.18. Based on historic trends and analysis of the current rental market, a 4% growth figure per annum was adopted for the projections. This aligns with HNDA Guidance which includes a 4% 'Modest Growth' scenario for rental prices.

Year	One bed	Two bed	Three bed	Four plus bed
2021	602	777	804	1098
2022	626	808	836	1142
2023	651	840	870	1188
2024	677	874	904	1235
2025	704	909	940	1285
2026	733	945	978	1336
2027	762	983	1017	1390
2028	792	1022	1058	1445

Table 4.18: Projected rental prices by unit type in County Waterford

The number of households not meeting the affordability criteria (housing costs below 35 per cent of a household's disposable income) for private rental during the plan period are quantified below in Table 4.19. This calculation therefore takes into account rental prices, disposable incomes and the demand for a particular unit type, which has been considered in order to estimate what type of unit the additional anticipated households are most likely to prefer to rent. This preference has been informed by current data on the size of unit types in the county. The households quantified below that cannot do not qualify for a mortgage and cannot afford private rental are therefore considered to require social and affordable housing.

	2021	2022	2023	2024	2025	2026	2027	2028
1 bed	9	16	25	30	29	28	22	22
2 bed	21	41	64	74	72	71	70	38
3 bed	27	52	80	93	90	88	88	47
4 + bed	14	28	43	50	48	47	47	25
Total	**71**	**137**	**212**	**247**	**239**	**235**	**234**	**125**

Table 4.19: Number of Additional Anticipated Households That Do Not Qualify for a Mortgage and Cannot Afford Private Rental

A calculation has also been undertaken to determine the number of households that can afford private rental during the plan period despite not qualifying for a mortgage (Table 4.20). Of those households that do not qualify for a mortgage, an annual average of 82 households can afford to rent a 1 bedroom unit during the plan period. However, based on analysis of household size in County Waterford, a 1 bedroom unit would only be suitable for c.12% of these households, providing the totals outlined below in Table 4.20.

All other units in the private rental market are not considered to be affordable/adequately sized during the plan period and therefore those households that cannot qualify for a mortgage and cannot afford private rental during the plan period are considered to require some form of housing support.

	2022	2023	2024	2025	2026	2027	2028
1 bed	6	9	11	10	10	10	5
2 bed	0	0	0	0	0	0	0
3 bed	0	0	0	0	0	0	0
4 + bed	0	0	0	0	0	0	0
Total	**6**	**9**	**11**	**10**	**10**	**10**	**5**

Table 4.20: Number of Additional Anticipated Households That Do Not Qualify for a Mortgage and Can Afford Private Rental

4.12 Summary of Projected Social and Affordable Housing Needs

Section 94 (4) of the Planning and Development Act 2000 (as amended) states that a housing strategy shall include an estimate of the amount of social and affordable housing that will be required within the county during the period of the plan. Section 94 (5) (a) states that when making these estimates, the planning authority shall have regard to the supply of and demand for houses generally, the price of houses generally, the income of persons generally, the rates of interest on mortgages for house purchase and the relationship between the price of housing, incomes and rates of interest for the purpose of establishing the affordability of houses in the area of the development plan.

Section 4 of this report complies with the requirements of Section 94, and the estimates of social and affordable housing requirements have had regard to the factors outlined above, as detailed in the stages of Section 4. The Social (and Affordable) Requirements reflect the projected extent of 'housing need' during the strategy period. This relates to the additional anticipated households during that time and therefore it is in addition to the current extent of unmet need as per the social housing waiting list discussed in Section 3 and Section 5 of this report.

This section summarises the anticipated social and affordable housing need in County Waterford informed by the analysis undertaken and outcomes of the previous sections which considered affordability and the ability of households to access mortgages or the private rental market. The analysis does not differentiate between social and affordable housing need as income thresholds and criteria for affordable housing are unavailable at the time of writing.

The anticipated social and affordable housing need for County Waterford during the plan period is summarised below in Table 4.21, and is based on the assessments of affordability and mortgage qualification detailed in the preceding sections of this report.

The number of households that do not qualify for a mortgage and cannot afford private rental provides the anticipated social and affordable housing figure. It should be noted that affordability is based on whether rental costs are less than 35% of disposable income. Some households may be availing of private rental accommodation currently and paying more than 35% of disposable income, and this is not captured by this assessment of social housing need.

	H2 2022	2023	2024	2025	2026	2027	H1 2028
No. of Additional Anticipated Households	464	716	835	806	792	790	340
No. of Additional Households That Do Not Qualify for a Mortgage	143	221	258	249	244	244	130
No. of Additional Anticipated Households that Do Not Qualify for a Mortgage and Cannot Afford Private Rental	137	212	247	239	235	234	125
Social Requirement as a % of Total Additional Anticipated Households	**30%**	**30%**	**30%**	**30%**	**30%**	**30%**	**37%**

Table 4.21: Identified Housing Requirements over the plan period

The Waterford County Development Plan period will run from Q3 2022 – Q2 2028 and Table 4.21 accounts for this period. The identified social and affordable housing requirement ranges from 212 to 247 units annually during the plan period, equivalent to c.30% of the total of additional anticipated households in County Waterford.

As noted in the preceding sections, in the case of County Waterford, a number of households that do not qualify for a mortgage can afford private rental for a 1 bed unit during the plan period, however a 1 bedroom unit would only be suitable for c.12% of these households.

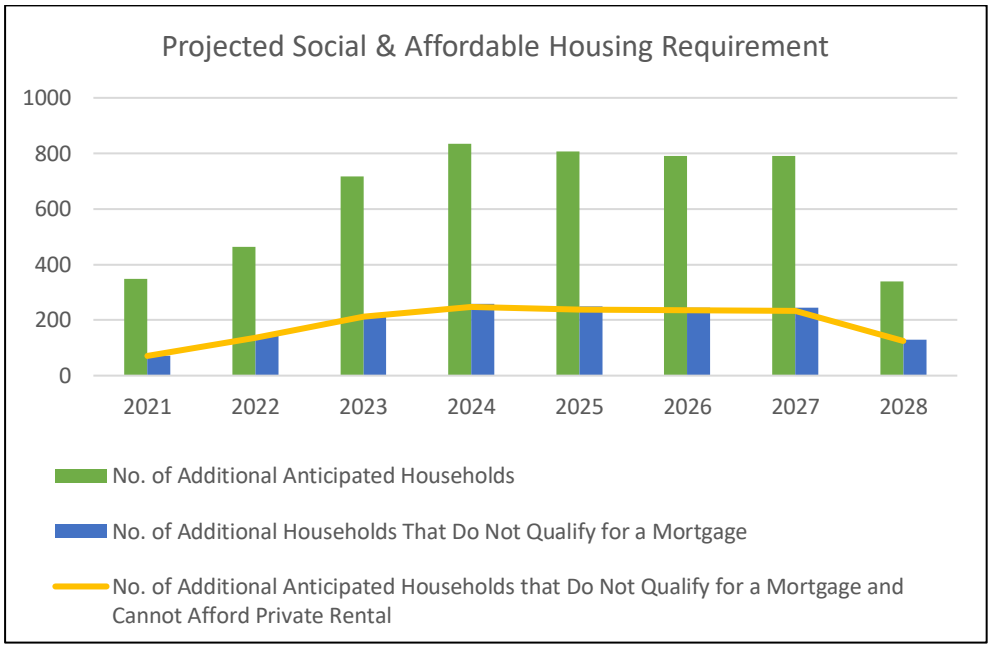


Figure 4.22: Summary of projected housing requirements over the plan period

5.0 Analysis of Housing Requirements in Waterford

5.0 Analysis of Housing Requirements in Waterford

5.1 Introduction

The following section considers specific elements of future housing demand in Waterford including the demand for single one-off dwellings in the countryside during the plan period, household size cohort, household tenure and social housing supply and demand. The NPF roadmap provides a population projection for County Waterford of 132,000 - 135,000 for 2026, and 137,000-144,000 for 2031. The projected housing demand for each local authority (as per the ESRI NPF Scenario Housing Supply Target) was outlined in Appendix 1 of the Ministerial Circular issued in December 2020 (Re. Structural Housing Demand in Ireland and Housing Supply Targets).

The projected housing demand for the 6 year development plan period as calculated in Table 4.2 (Section 4) is 4,824, providing an annual average housing demand for County Waterford of 804 units (as shown in Table 4.5). During the plan period it has been determined that 1,489 households of the additional anticipated households will not qualify for a mortgage during this period. The identified social and affordable housing requirement ranges from 212 to 247 units annually during the plan period, equivalent to c.30% of the total of additional anticipated households in County Waterford.

5.2 Single Housing in the Countryside

National Policy Objective 20 of the NPF states: *'Project the need for single housing in the countryside through the local authority's overall Housing Need Demand Assessment (HNDA) tool and county development plan core strategy processes'.* Analysis of planning permission data from 2010 to 2020 (including total units permitted (Figure 5.1) and permissions granted for one off housing in Waterford (Table 5.1)) has been undertaken to assist in projecting the need for single housing in the countryside during the plan period. The data helps to understand typical quantum's per annum of one off houses being permitted in the county and the proportion of overall residential permissions they comprise. In Table 5.1, *'All Dwellings'* refers to multi-unit housing developments, one off houses/single houses in the countryside, private flats and apartments. Figure 5.1 reveals that the total number of permitted units in Waterford has trended upwards since 2015, peaking at 1168 units permitted in 2019, corresponding with positive economic growth following a lag period post 2011.

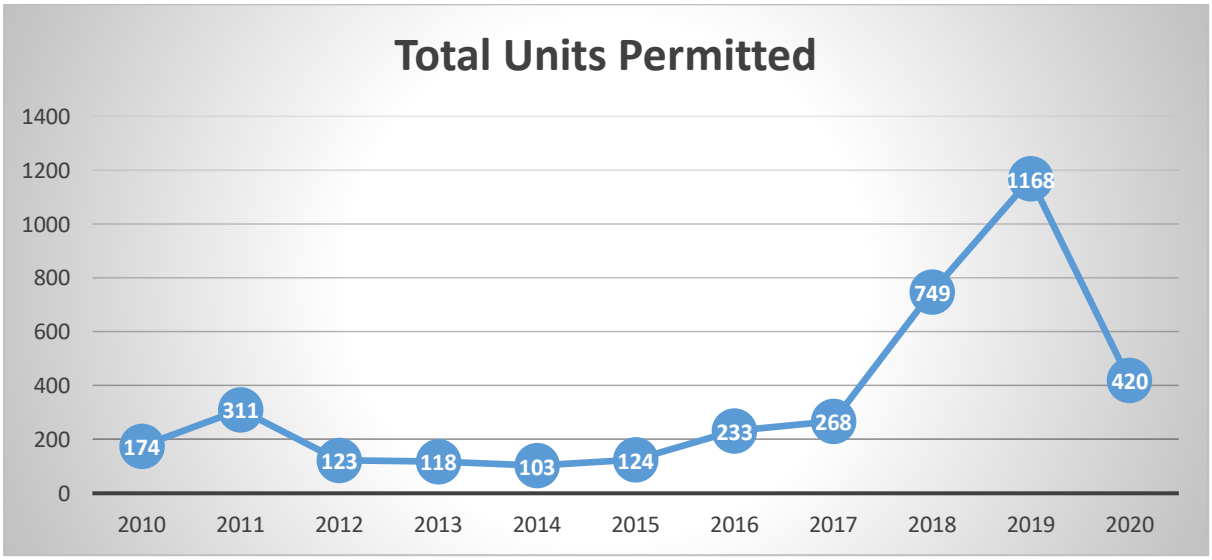


Figure 5.1: Total Units permitted in County Waterford (2010-2020)

Table 5.1 below illustrates the permissions for one-off dwellings as a percentage of total permissions for residential units during 2010 – 2020. This data identifies that on average approximately 31.5% of all granted residential units within any given year have been for single one-off dwellings. Data up to Q4 2020 is available from the CSO at the time of writing.

Year	Dwelling Type	Total		Dwelling Type	Total	One off Houses as a % of Total
2010	One off houses	119		All Dwellings	174	68.4%
2011	One off houses	96		All Dwellings	311	30.9%
2012	One off houses	67		All Dwellings	123	54.5%
2013	One off houses	66		All Dwellings	118	55.9%
2014	One off houses	84		All Dwellings	103	81.6%
2015	One off houses	87		All Dwellings	124	70.2%
2016	One off houses	111		All Dwellings	233	47.6%
2017	One off houses	113		All Dwellings	268	42.2%
2018	One off houses	148		All Dwellings	749	19.8%
2019	One off houses	155		All Dwellings	1168	13.3%
2020	One off houses	147		All Dwellings	420	35%
	Total	**1,193**		**Total**	**3,791**	
				Average (2010-2020)		**31.5%**

Table 5.1: Analysis of Permitted Applications for Single Houses in the Countryside in County Waterford (2010-2020)

In relation to trends in planning permissions for residential units, the number of one-off houses permitted has increased year on year since 2013 (increasing from 66 in 2013 to 155 in 2019). In 2019 a Strategic Housing Development (SHD) was permitted by An Bord Pleanála which contributed to the spike in total units permitted. The quantum of one off houses permitted annually (and indeed overall residential permissions) can be observed to trend to some degree with economic performance, with lower numbers observed during the economic recovery phase in the early to middle part of the last decade.

Given the overall number of units permitted per year averages at c. 340, the percentage of the total which are one off houses can be skewed in a given year by for instance a large housing development for multiple units being permitted. Therefore, the percentage is less important than the quantum of one offs permitted per year. This quantum provides an indication of the potential projection for single housing permissions over the development plan period.

Figure 5.2 below details units granted planning permission by type, illustrating that multi—unit housing developments have been the most prominent type in recent years. Apartments/private flats have started to become a more substantial proportion of overall permissions in recent years. As noted above, a large spike in units granted is observed in 2019, where a Strategic Housing Development (SHD) was permitted by An Bord Pleanála, contributing to the large increase in multi-development houses and apartments permitted.

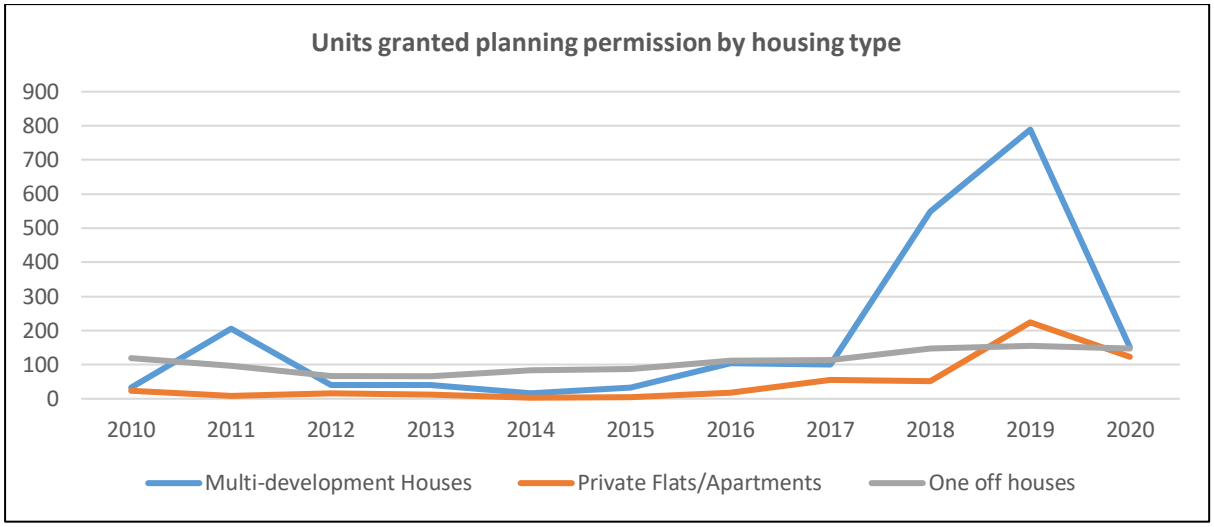


Figure 5.2: Units permitted by housing type in County Waterford (2010-2020)

To assist further in complying with the NPF requirement to project the need for single housing in the countryside, forecasts have been undertaken based on historical data with confidence intervals utilised (Figure 5.3). The intervals (or confidence bounds) illustrate the outer limits within which the single housing values from 2021 - 2028 are likely to fall within.

The probability limits utilised in this calculation are 95% confidence level. In Figure 5.3, the trend line for one off houses is illustrated in a solid bold orange line, forecasting figures from 162 to 218 annually out to 2028.

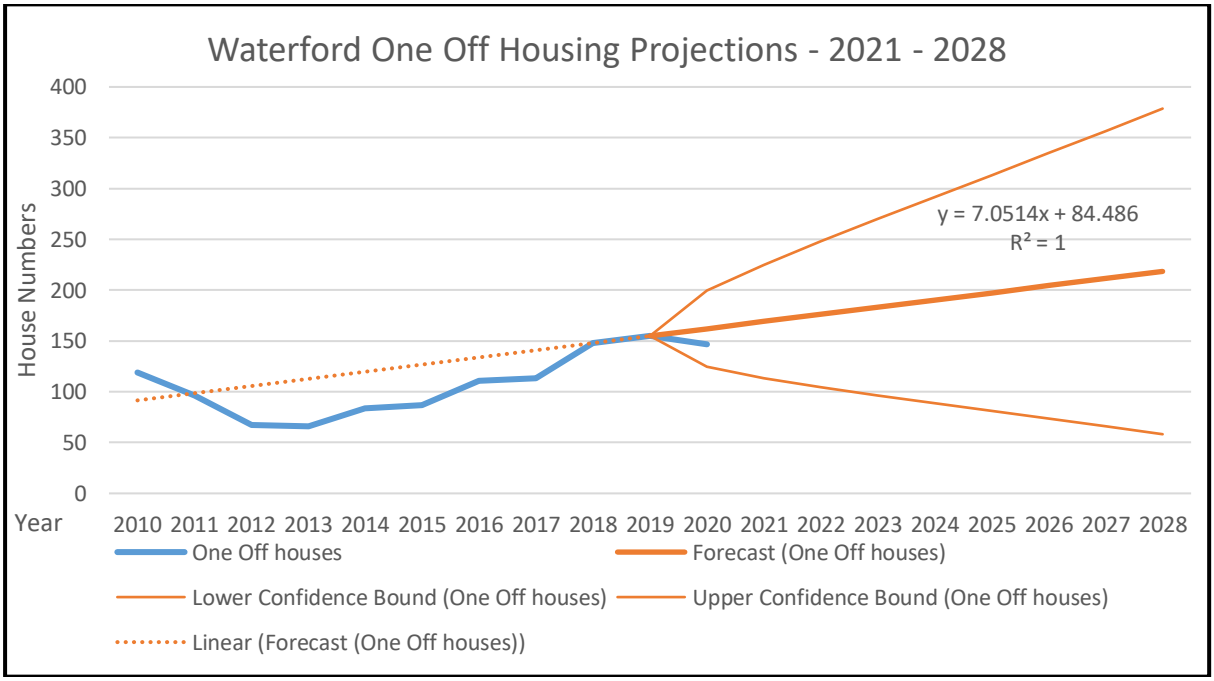


Figure 5.3: County Waterford One-off Housing Projections (2021-2028)

Projections based on data from 2010 - 2019 indicated a 95% confidence interval of 124-200 for the number of one off houses in 2020. Based on 2020 data, the actual one off house figure of 147 is within this confidence interval but trends closer to the lower limit. The analysis is presented numerically in Table 5.2 illustrating the forecasted one off house numbers per year to 2028, and the upper and lower confidence bounds (intervals).

A number of socio-economic factors are currently at play which may influence the demand for one-off housing including the ongoing impact of Covid-19, the impact of an increase in remote working, and the transposal of NPF policies on rural housing (National Policy Objective 19 in particular) into county development plans. In relation to policy impacts, the Office of the Planning Regulator (OPR) is tasked with evaluating local authority forward planning including development plans, local area plans etc., and providing statutory observations to ensure consistency with relevant regional or national policies. Analysis of OPR submissions thus far indicates the transposal of NPF policies on rural housing into county development plans will most likely lead to a more restrictive approach to one-off housing, particularly in rural areas under urban influence. This has a potential to lead to a spike in one-off housing applications prior to a new development plan coming into force, as applicants anticipate the introduction of a more restrictive regime or policy implementation and aim to apply prior to this.

Having regard to the above and based on current economic conditions arising from Covid-19, it is likely the years 2021 and 2022 will be between the lower confidence bound and the forecast figure.

Year	One Off House Permissions	Forecast (One Off houses)	Lower Confidence Bound (One Off houses)	Upper Confidence Bound (One Off houses)
2010	119			
2011	96			
2012	67			
2013	66			
2014	84			
2015	87			
2016	111			
2017	113			
2018	148			
2019	155			
2020	147	162	124	200
2021		169	113	225
2022		176	104	248
2023		183	96	270
2024		190	89	292
2025		197	81	313
2026		204	74	335
2027		211	66	357
2028		218	58	379

Table 5.2: County Waterford One-off Housing Projections (2022-2028)

Regression analysis has been undertaken to understand the relationship between one off housing and potential correlating factors, namely projected population growth and employment rates. Figure 5.4 provides regression analysis for the relationship between one off housing and unemployment rates from 2011 to 2020 (based on regional unemployment data from the CSO Labour Force Survey (LFS) and the CSO Quarterly National Household Survey (QNHS))[19].

[19] https://www.cso.ie/en/statistics/labourmarket/

The Labour Force Survey[20] and the Quarterly National Household Survey available from the CSO provides unemployment data at a national level and regional level via the NUTS classifications. Unemployment data for the South-East Region which includes Waterford has been analysed and used to populate regional unemployment figures from 2011-2020 (utilised in Figure 5.4 and Table 5.3).

The R^2 value of 0.83 arising from the regression analysis indicates a strong negative affect of the unemployment rate on one off housing permissions - i.e. higher unemployment has a negative impact on the number of one off house permissions.

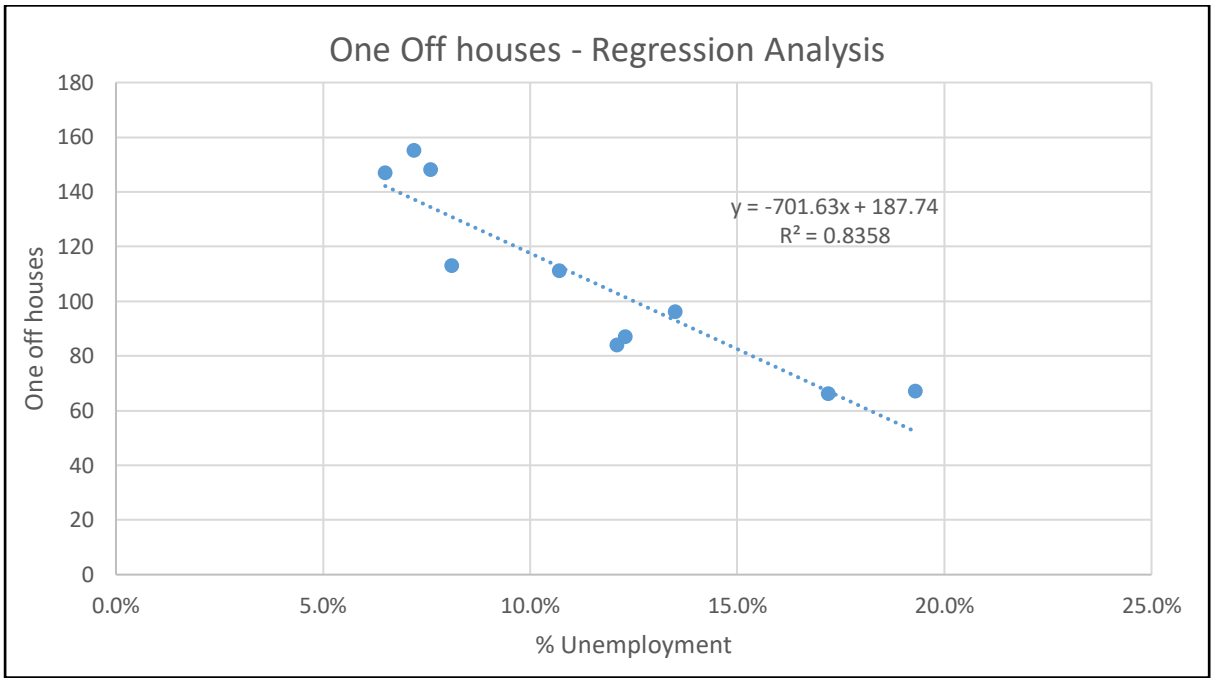


Figure 5.4: One off houses and unemployment – Regression Analysis

Table 5.3 below provides the numerical projections based on the link between one off housing permissions and the unemployment rate. Unemployment data from the CSO[21] reveals that COVID-19 has continued to have a significant impact on the labour market in Ireland in April 2021.

The standard measure of Monthly Unemployment was 5.8% nationally in April 2021 (Seasonally Adjusted Figure), however the COVID-19 Adjusted Measure of Unemployment could indicate a rate as high as 22.4% if Pandemic Unemployment Payment (PUP) recipients are classified as unemployed. This alternative measure is down from 23.8% in March 2021 and from 30.5% in April 2020, illustrating the impact of the lifting of Government restrictions.

Table 5.3 below provides regional unemployment for the South-East from 2011-2019 sourced from the CSO Labour Force Survey (LFS) and in particular data classified by NUTS3 regions and ILO (International Labour Organisation) Economic Status. The LFS is the official source of labour market statistics for Ireland including the official rates of employment and unemployment.

The employment level for 2020 is based on the COVID-adjusted level of employment published by the CSO. The average monthly unemployment rate for 2020 was approximately 18.7 per cent according to the ESRI.

[20] https://www.cso.ie/en/releasesandpublications/er/lfs/labourforcesurveylfsquarter32020/
[21] https://www.cso.ie/en/releasesandpublications/er/mue/monthlyunemploymentdecember2020/

Projected unemployment is available at a national level from sources such as the ESRI and the Central Bank. This information is not available at a regional level and therefore the national figure has been utilised to project a regional unemployment figure.

The ESRI in their Spring 2021 Quarterly Economic Commentary state:

'The average monthly unemployment rate for 2020 was 18.7 per cent. We estimate that the unemployment rate in Q4 of 2021 will be approximately 10 per cent with the average unemployment rate for 2021 overall being 16.7 per cent. We believe it is unlikely that the unemployment rate will approach its pre-COVID low of 4.7 per cent until 2023 at the earliest. We forecast that unemployment will average 7.3 per cent for 2022 as we expect growth in consumption, exports and investment to drive an improvement in the labour market'.

The Quarterly Bulletin (QB2) published by the Central Bank of Ireland in April 2021 forecasts the unemployment rate to be 8.1 per cent in 2022. A mid-point between these two estimates has therefore been adopted in this report for 2022. Finally, as noted above, based on the relationship between national and regional unemployment figures for the South-East observed in recent years (i.e. the South-East tends to have an unemployment figure 1.4% higher than the state average), a regional unemployment figure has been projected for the years 2021-2028 by adding 1.4 to the national unemployment projection.

Year	One Off House Permissions	Unemployment Rate (Regional)	
2011	96	13.5%	
2012	67	19.3%	
2013	66	17.2%	
2014	84	12.1%	
2015	87	12.3%[22]	
2016	111	10.7%	
2017	113	8.1%	
2018	148	7.6%	
2019	155	7.2%	
2020	147	20.1%	Covid-Adjusted
2021	61	18.1%[23]	Covid-Adjusted
2022	123	9.2%	
2023	139	7.0%	
2024	145	6.1%	
2025	145	6.1%	
2026	145	6.1%	
2027	145	6.1%	
2028	145	6.1%	

Table 5.3: One-off Housing Projections (2022-2028) based on regression analysis

As noted above, historical trends indicate a strong negative affect of the unemployment rate on one off housing numbers - i.e. higher unemployment has a negative impact on the number of one off house permissions. The regression analysis summarised in Table 5.3 provides a projection of one off housing permissions based on the regional unemployment rate, indicating an average of 141 from 2022-2028.

[22] https://www.cso.ie/en/releasesandpublications/er/qnhs/quarterlynationalhouseholdsurveyquarter42015/
[23] https://www.esri.ie/publications/quarterly-economic-commentary-spring-2021

Anomalies can be observed in the analysis related to Covid-19 for 2020, as the high rate of unemployment (COVID-19 Adjusted Measure of Unemployment) did not dampen one-off housing permissions. Covid-19 has had many and varied impacts on the housing sector, including an increase in remote working, migration of people away from cities and an increase in demand for rural housing; which may explain in part the anomaly observed in 2020. Similarly, the projection of 61 for 2021 is likely to understate the actual total, given the Covid impacted unemployment rate.

Regression analysis was also undertaken to understand the relationship between one off housing and projected population growth. In this case, the R^2 value of 0.84 shows strong positive correlation between population and one of house numbers – i.e. as population increases it will have a strong upward effect on one off housing (all things being equal). The regression analysis examines two factors for projection purposes; in reality many factors will impact one off housing permissions, particularly rural housing policy.

Year	Population Total	One off houses
2011	113,795	96
2016	116,176	111
2017	118,058	113
2018	119,940	148
2019	121,822	155
2020	123,704	147
2021	125,586	172
2022	127,491	184
2023	129,401	196
2024	131,306	208
2025	133,151	219
2026	135,000	231
2027	136,826	242
2028	138,628	253

Table 5.4: One-off Housing Projections (2022-2028) (Relationship with population growth)

Other variables may impact the demand for single housing in the countryside during the plan period, such as the impact of remote working and Covid-19 on settlement and employment patterns, however the analysis provided herein is considered to provide data-led projections based on observable trends and analysis.

5.3 Household Size Cohort

Analysis of the historic household sizes has been undertaken to help predict household composition over the plan period. Analysis of the average intercensal change from 2006 – 2016 has been considered and annualised to assist with forecasting future change in the number of people per household.

Trends in County Waterford broadly reflect a national trend of fewer people per household, and this trend is forecasted to continue over the plan period. 1 and 2 person households will form the largest overall cohort over the plan period, amounting to a combined total of 57.9% of all households by 2028. The number of households comprising of 4 people or more will continue to decline between 2022 and 2028.

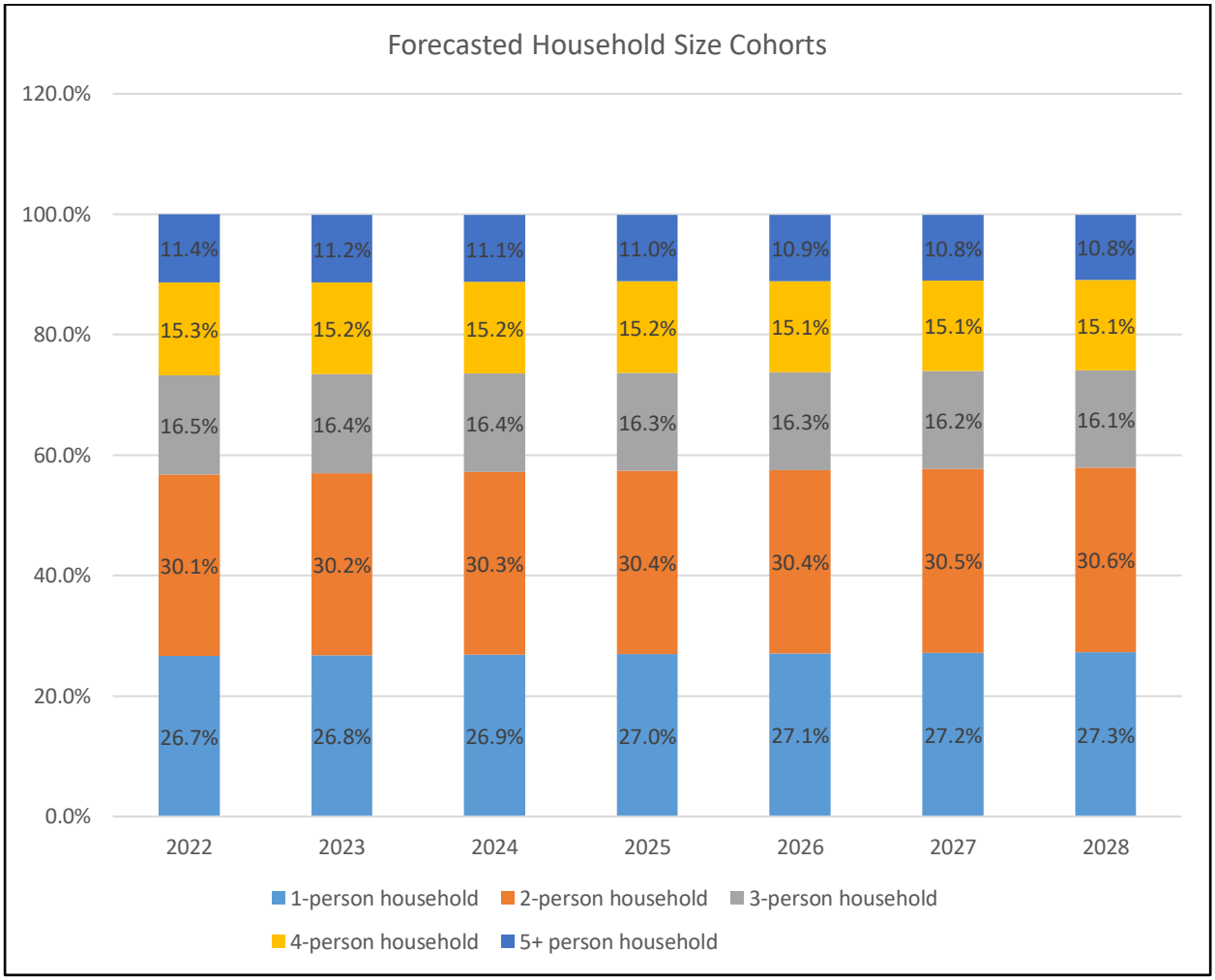


Figure 5.5: Forecasted household size cohorts during the plan period

5.4 Household Tenure

The NPF identifies the need to estimate the demand for different tenure types during the development plan period. This estimation has been informed by the historic tenure split observed in County Waterford during the intercensal change from 2006 – 2016 which has been considered and annualised to assist with forecasting future change in tenure split. The 'type of occupancy' categories are as provided by the CSO.

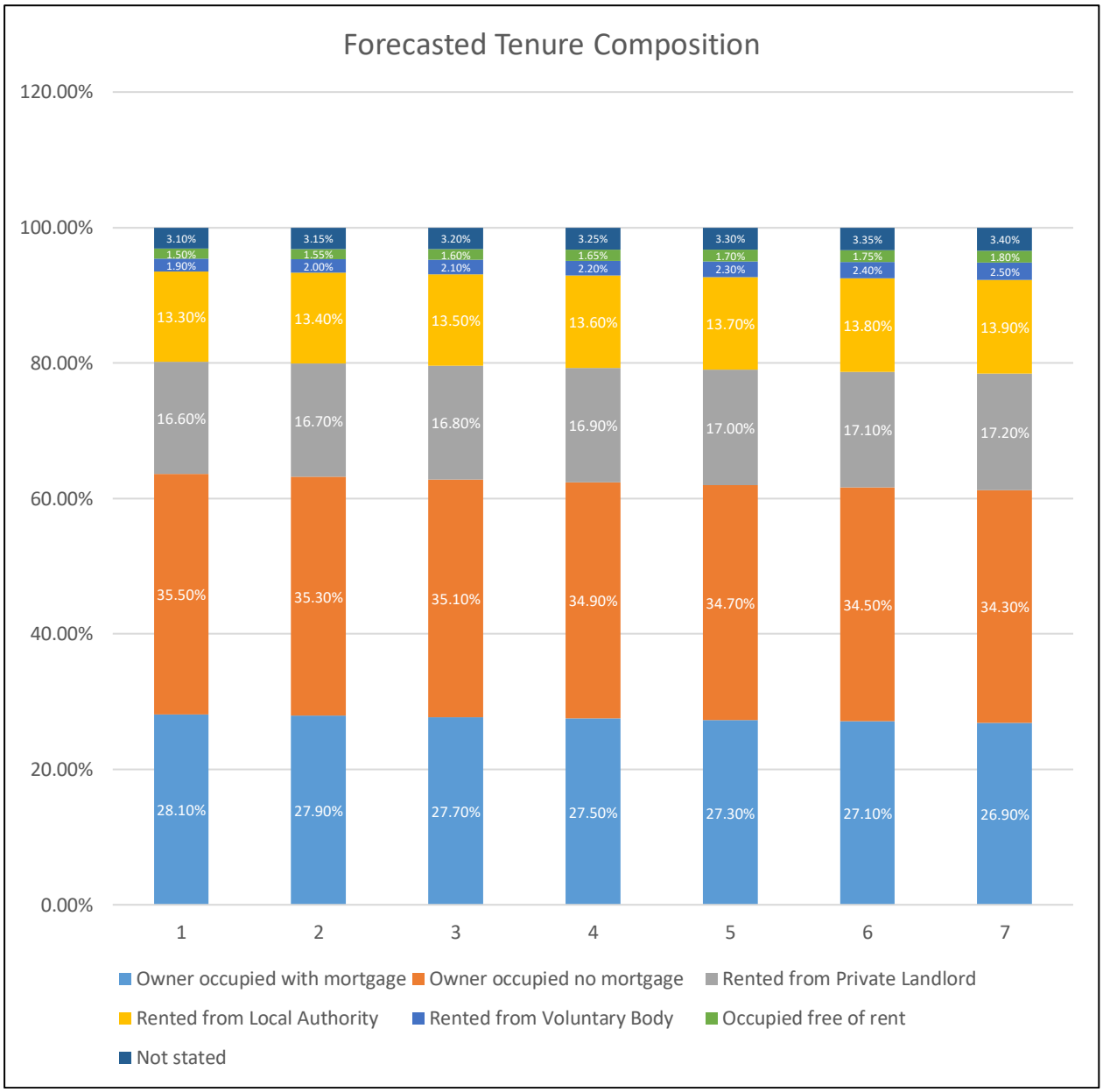


Figure 5.6: Forecasted household occupancy during the plan period

By 2028, it is forecasted that 61.2% of all households will be owner occupied in County Waterford (including with mortgage and without mortgage). It is forecasted that private rental figure will increase to 17.2% in 2028, and that the units rented from a voluntary body will increase to 2.5%. It is forecasted that units rented from the local authority will increase to 13.9% by 2028.

5.5 Social Housing Supply and Demand

Existing Social Housing Needs

The existing social housing need is discussed in Section 3.5. In summary, the social housing waiting list for County Waterford stands at 1,267 at the time of writing. This existing need does not account for the future needs assessed in Section 4, which would be in addition to any remaining need unmet at the beginning of the strategy period 2022- 2028.

There was an increase of 15.8% (173 households) in the number of households qualifying for social housing support recorded in Waterford City and County from 2019 to 2020. The largest cohort of applicants is within the 30-39 age bracket (main applicant) at 365. There were 37 applicants aged 70 +, and 194 applicants aged less than 25.

The location preference and preference in terms of accommodation size has been compiled by Waterford City and County Council for different parts of the county. In Waterford City, the data illustrates that Ferrybank and the North West Suburbs are the most preferred locations (Table 5.5). The data in the following tables includes HAP, RAS and Voluntary Bodies.

The majority of applicants have a stated preference for a 1 bed unit (789), equating to more than half of all applicants.

FIRST AREA OF CHOICE	1 bed	2 bed	3 bed	4 bed	Total
Ballybeg/Kilbarry	26	11	6	3	46
Central/Inner City	142	46	10	0	198
Dunmore Road	105	67	36	2	210
Farran Park	1	0	0	0	1
Ferrybank	214	89	31	3	337
Larchville/Lisduggan	81	49	11	1	142
North West Suburbs	142	77	33	5	257
Sacred Heart	78	49	23	1	151
Total City	**789**	**388**	**150**	**15**	**1342**

Table 5.5: Waterford City - First Choice Location Preference and Unit Size Preference

In Dungarvan the most preferred location is Abbeyside and the total number of applicants is 203. In Tramore the total number is 138.

Abbeyside	51	26	7	1	85
Ballinroad	14	8	2	0	24
Dungarvan	45	35	13	1	94
Total Dungarvan	**110**	**69**	**22**	**2**	**203**
Tramore	**68**	**55**	**10**	**5**	**138**

Table 5.6: Dungarvan and Tramore - First Choice Location Preference and Unit Size Preference

In the remained of the county, Dunmore East and Kilmacthomas are listed as the most preferred location.

Sheltered Housing	36	0	0	0	36
Dunmore East	14	11	3	1	29
Kilmacthomas	9	12	4	0	25
Kilmeaden	15	4	2	0	21
Crooke	10	8	1	0	19
Lismore	6	3	4	1	14
Portlaw	7	5	2	0	14
Kill	9	1	1	0	11
Cappoquin	7	2	1	0	10
Tallow	3	5	2	0	10

Table 5.7: Waterford County - First Choice Location Preference and Unit Size Preference

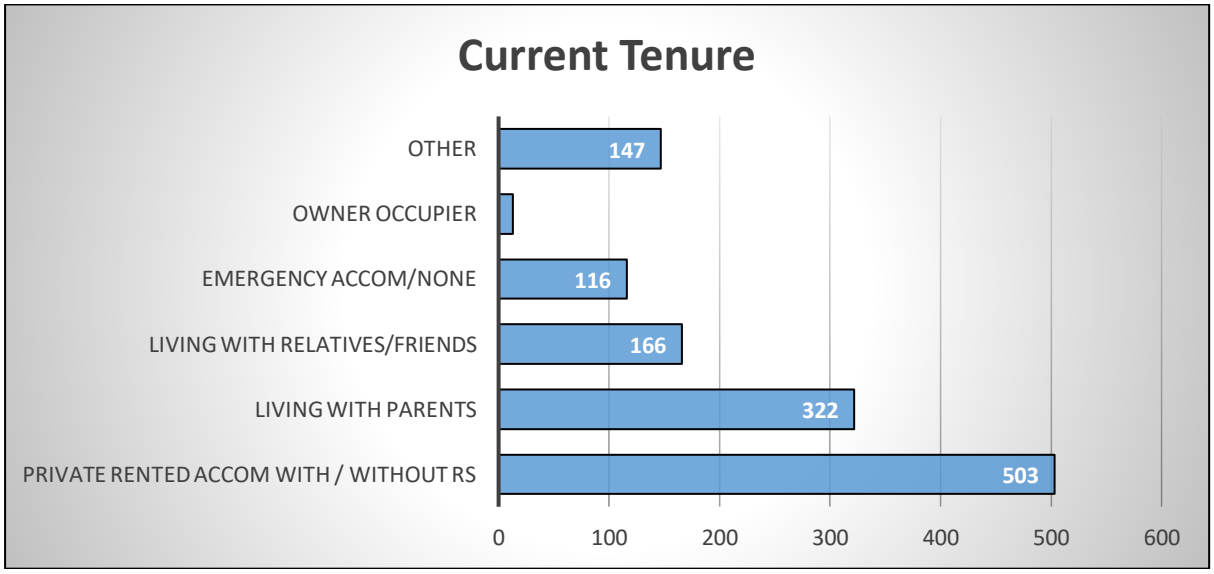


Figure 5.7: Social housing need – current tenure

In relation to the duration of time applicants have been on the social housing waiting list in County Waterford, the largest cohort is noted within the 1-2 years bracket, however a sizeable number of applicants are on the waiting list for 7 years or greater.

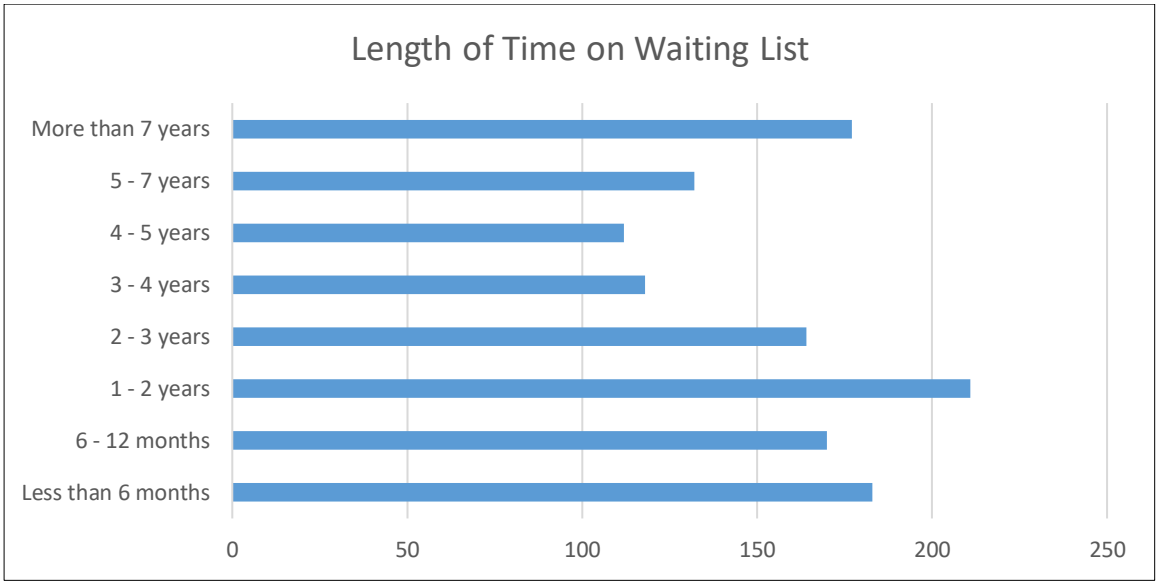


Figure 5.8: Length of Time on Record of Qualified Households (Waiting List)

Homelessness & Emergency Accommodation

The number of households who have presented to Waterford Council Homeless Services has increased substantially year on year with 1,267 households presenting during 2020 (information provided by the Housing Section of Waterford City & County Council). Of those, 756 received a formal homeless assessment with 146 single persons and 25 families accommodated in Temporary Emergency Accommodation (TEA) during 2020. Of the 756 households which received an assessment, 76% were single and 24% were families.

As of the 30th April 2021 there were 55 single persons and 7 families in TEA in Waterford.

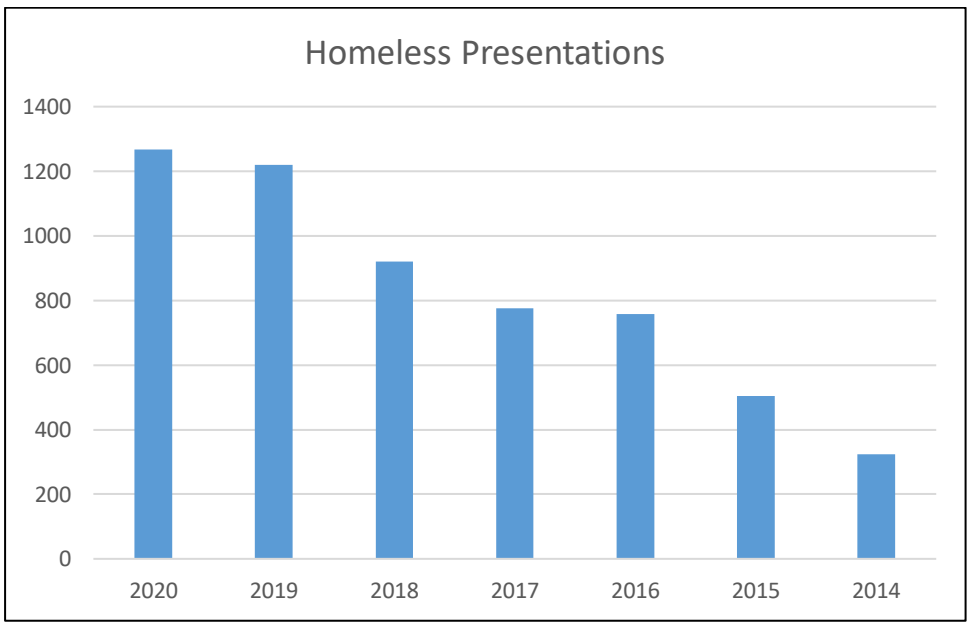


Figure 5.9: Homeless Presentations 2014-2020 (County Waterford)

In relation to capacity, there are 20 “Own Front Door” (OFD) units provided in Waterford City and 2 units in Dungarvan. The number of Section 10 (S10) Temporary Emergency Accommodation (TEA) beds/units varies as there is flexibility to meet demand as it arises. Temporary Emergency Accommodation can be utilised for long term or transitional accommodation as the need arises, however, the number of S10 TEA beds based on the service level agreements in place is 69 based in Waterford City.

Waterford City & County Council have prioritized homeless preventions, supported exits and sustained tenancies in 2020 through partnership and collaborative working with the Health Service Executive (HSE) and the various Homeless Service Providers in Waterford; and by utilising various projects in Waterford Integrated Homeless Services centre including:

- Homeless Prevention & Support Service,
- Advice & Information Service,
- Tenancy Support & Sustainment Service,
- Homeless HAP Place Finder Service and;
- Housing First Service.

In relation to the spatial distribution of social housing need, the core strategy prioritises growth in the settlement hierarchy to Waterford City, Dungarvan and Tramore, in line with national and regional policy contained in the NPF and the RSES.

The location preference data for social housing discussed above also notes that Waterford City, Dungarvan and Tramore are the most preferred locations for housing applicants.

The policy framework under the NPF and RSES for concentrating growth to urban and built up areas, urban in-fill and regeneration will impact the spatial distribution of housing, with development plans required to comply with this policy direction. Therefore, it is reasonable to conclude that social housing need will increase in the higher tier settlements of Waterford where population and growth is being focused and directed to.

Deprivation

A review of the Pobal Deprivation Index and Geoprofiling Reports reveals the Pobal HP Index score for County Waterford in 2016 was -2.35 which is considered marginally below average. The AIRO report summarises the key findings for Waterford in relation to the deprivation index and notes that relative to the State, the South-East Region has a higher level of deprivation. As the graph illustrates, the relative affluence and deprivation score for the State is 0.6, while the corresponding value for the South-East Region is -3.2. Both Waterford City and County are more deprived than Ireland as a whole, with Waterford City recording a rate of -4.8 (similar to Wexford) and Waterford County recording a rate of -0.6.

The Waterford City South LEA has by far the lowest level of deprivation with a score of -9.7. While still classed as marginally below average (-10 to 0) this LEA is very close to being classed as ‘Disadvantaged’. With the exception of Waterford City East (3.5), all other LEAs are also classed as marginally below average.

Figure 5.11 sourced from Pobal classifies each of the 504 Small Areas (SAs) in Waterford on the basis of their scores on the HP Pobal Affluence and Deprivation Index. As the map shows, most of Waterford, and in particular rural Waterford, is classified on the Pobal HP Index as being 'marginally above average' or 'marginally below average'.

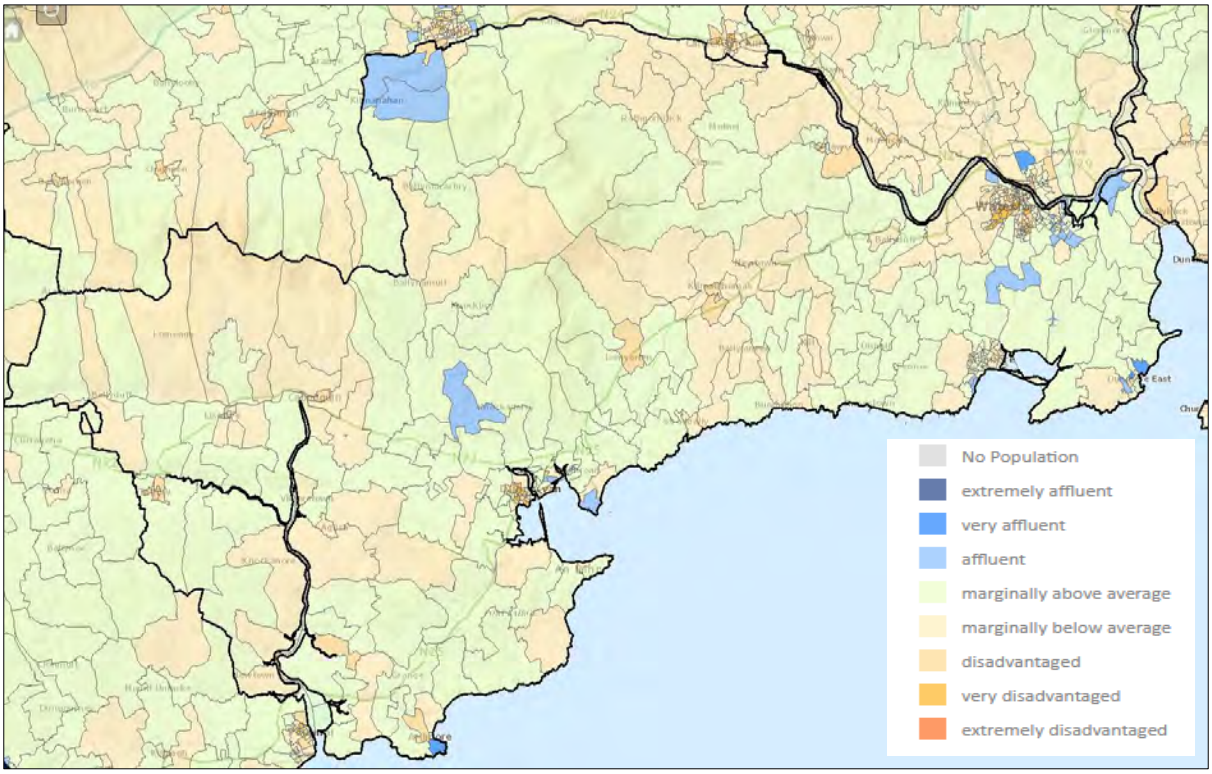


Figure 5.11: Pobal Deprivation Map 2016 (County Waterford)

The northern half of the county has almost equal numbers of SAs that are classified as 'marginally below average' and 'marginally above average'. Below-average and disadvantaged values pertain in much of Waterford's MASP area and in towns such as Dungarvan and Tramore.

The highest levels of disadvantage are located within the MASP area in areas such as Larchville, Lisduggan and Morrison's Road. Across Waterford City and County (including Kilkenny MASP area) a total of 110 SAs are classed as Disadvantaged or Very Disadvantaged. This accounts of a total population of 24,821 or 20% of the total population.

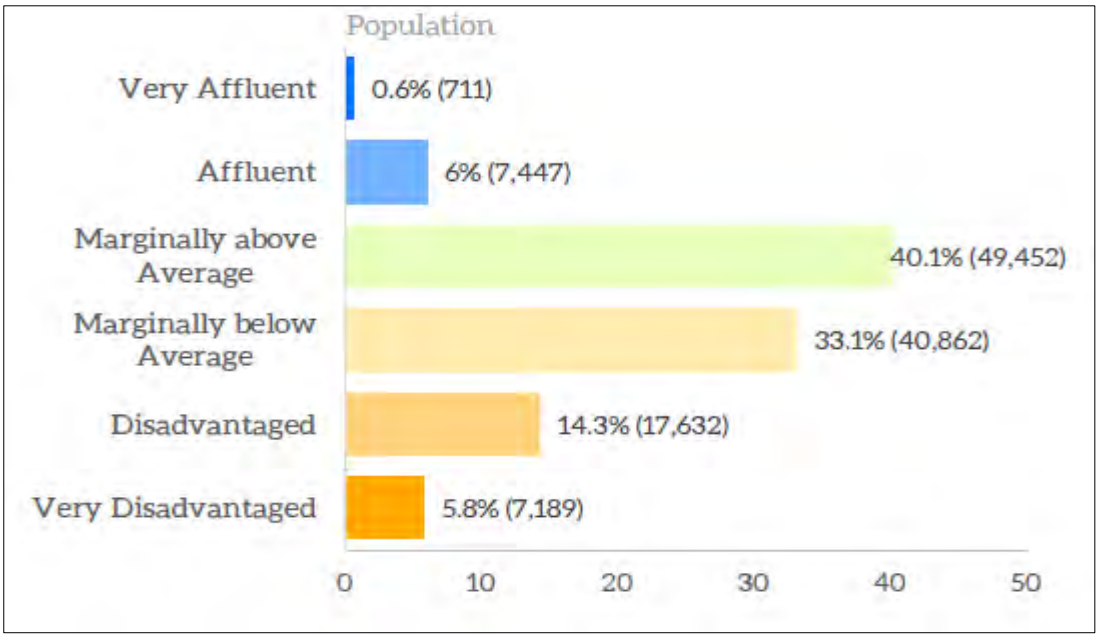


Figure 5.12: Waterford - Pobal HP Deprivation Index, Relative Score 2016 - by Population (Source: Pobal/AIRO)

Based on analysis of the Pobal Geoprofiling Reports (insert included as Table 5.8 below) and the Pobal Deprivation Map for County Waterford, and having regard to the settlement strategy and planning policy in regards to population distribution, it is considered there is likely to be a social housing need in Waterford City, Dungarvan, Tramore and Dunmore East.

ED Name	Total Population 2016	Deprivation Score 2016	Age Dependency Ratio 2016	Lone Parents Ratio 2016	Proportion with Primary Education Only 2016	Proportion with third level education 2016	Unemployment rate-Male 2016	Unemployment rate-Female 2016
Annestown	822	2.95	40.19	12.50	13.00	36.87	7.77	8.80
Ardmore	206	0.06	41.26	4.00	12.00	45.45	19.61	4.76
Ardmore	739	-0.85	35.82	24.60	11.00	36.98	17.27	10.33
Ballybeg North	2757	-16.75	37.12	49.00	22.33	14.67	32.79	27.99
Ballybeg South/Ballynaneashagh	309	-4.01	45.31	6.00	12.00	38.31	18.03	20.00
Ballybricken	145	-9.71	42.76	45.00	19.00	24.76	29.41	16.67
Ballyduff	306	1.47	35.62	18.00	18.00	30.20	6.67	10.00
Ballydurn	186	1.80	33.87	5.00	14.00	31.62	14.04	5.41
Ballyhane	474	-2.11	42.96	16.00	9.50	27.28	10.76	12.97
Ballyheeny	590	-5.18	40.16	15.50	11.00	26.37	19.13	16.61
Ballyin	508	0.64	39.05	4.50	15.50	30.18	10.84	5.26
Ballylaneen	263	-1.22	38.78	10.00	16.00	32.18	12.00	7.69
Ballymacarbry	511	3.19	39.87	16.00	10.50	36.55	11.31	6.29
Ballymacart	362	1.00	38.17	15.50	17.50	33.01	6.83	11.93
Ballymaclode	1247	7.18	37.92	6.00	7.25	50.23	7.57	5.75
Ballynakill	2125	2.28	35.99	12.67	9.33	47.34	11.32	10.69
Ballynakill (Pt.)	420	2.33	49.76	9.00	10.00	34.21	8.42	1.54
Ballynamult	169	3.43	32.54	6.00	10.00	31.25	6.52	4.88

Ballysaggartmore	337	-0.80	36.50	12.00	21.00	24.02	8.33	5.88
Ballytruckle	5938	-5.54	30.80	34.90	11.14	23.59	23.23	19.73
Bilberry	802	-1.57	26.59	20.00	14.50	34.72	22.62	23.17
Bohadoon	301	2.98	45.51	10.00	10.00	33.70	6.76	5.26
Cappagh	361	3.90	33.72	11.50	9.00	32.75	6.91	4.94
Cappoquin	1253	-7.42	38.09	23.83	20.17	22.04	16.11	17.20
Carrickbeg Rural	450	-1.95	38.65	21.00	13.00	26.12	11.90	7.54
Carrigcastle	269	-6.74	31.97	26.00	18.00	27.84	19.48	28.57
Carriglea	533	2.93	37.22	12.50	17.00	38.01	8.78	5.08
Castlerichard	492	0.88	39.56	12.00	17.00	29.90	6.47	7.00
Centre A	791	-2.49	30.42	45.60	13.80	29.17	31.52	25.89
Centre B	236	-10.28	27.12	32.00	14.00	30.08	38.36	33.33
Clashmore	404	2.42	35.43	10.00	13.50	28.78	6.19	7.68
Cleaboy	2556	-3.73	30.04	26.67	10.89	23.47	13.87	13.29
Clonea	430	-1.25	33.30	29.50	15.00	23.15	8.39	14.72
Clonea	2280	5.33	35.11	19.00	9.89	40.69	9.71	9.88
Colligan	703	5.61	40.69	7.67	7.00	36.13	6.30	6.71
Comeragh	435	-7.85	37.36	30.50	17.50	28.36	21.97	12.08
Coumaraglin	247	2.82	36.03	8.00	15.00	28.82	8.00	8.51
Custom House A	353	-4.98	32.50	29.33	13.00	27.01	30.06	24.73
Custom House B	269	-5.20	21.21	43.00	16.00	30.44	46.84	27.84
Dromana	790	-1.28	39.65	18.00	16.33	29.03	12.62	11.96
Dromore	241	-2.69	37.76	10.00	16.00	30.67	16.39	6.12
Drumcannon	372	2.51	38.71	16.00	10.00	37.76	7.69	8.96
Drumroe	273	2.34	32.60	25.00	8.00	37.10	11.69	6.38
Dungarvan No. 1 Urban	4787	-11.08	34.38	33.58	20.11	22.34	27.67	19.13
Dungarvan No. 2 Urban	3440	1.83	37.92	22.67	8.25	40.56	14.04	10.57
Dungarvan Rural	1902	1.05	38.73	18.17	12.17	32.43	13.18	9.46
Dunhill	247	2.85	38.06	7.00	10.00	40.88	11.11	7.55
Faithlegg (Pt.)	2152	3.25	37.43	13.50	10.25	37.65	10.21	9.26
Farranshoneen	5607	7.90	32.09	16.05	4.57	51.30	10.29	8.33
Fenoagh	214	-2.56	39.72	15.00	8.00	31.20	13.73	10.26
Ferrybank	858	-10.98	42.64	21.25	18.25	22.10	21.40	14.58
Fews	347	-1.60	35.73	10.00	15.00	32.51	16.67	9.52
Fox'S Castle	457	3.86	34.80	4.50	15.50	30.10	8.36	2.38
Gardenmorris	426	-1.78	39.91	23.50	13.50	27.15	13.61	7.53
Georgestown	206	4.84	40.78	14.00	12.00	30.83	7.55	2.22
Glen	423	-3.02	37.05	14.50	12.00	23.24	12.61	11.80
Glenwilliam	164	0.13	37.80	9.00	22.00	28.30	10.87	0.00
Gortnapeaky	203	-0.66	44.33	17.00	21.00	22.40	4.00	14.29
Gracedieu	1662	-3.26	35.18	27.75	8.00	32.73	24.57	21.15
Graignagower	521	0.09	34.72	23.50	16.00	27.61	9.43	9.98
Grallagh	235	3.65	35.32	10.00	11.00	34.04	6.06	7.69
Grange	356	1.91	42.42	15.00	13.00	26.26	6.02	6.15
Grange North	883	-14.99	44.45	37.50	19.25	16.03	24.24	20.17
Grange South	2722	-2.80	37.23	28.40	12.90	31.72	20.68	14.37
Grange Upper	2412	3.45	37.14	15.50	6.50	48.96	13.15	12.56
Gurteen	354	0.41	40.11	11.00	14.00	33.78	7.69	9.23
Islandikane	2337	4.66	38.72	13.71	7.43	43.00	11.32	7.90
Keereen	227	-3.51	32.60	30.00	12.00	20.26	10.00	10.87
Kilbarry	1137	2.25	30.36	20.75	5.75	34.53	17.66	15.38
Kilbarry (Pt.)	253	11.37	39.13	12.00	3.00	61.31	4.76	6.38
Kilbarrymeaden	391	-7.09	39.39	20.00	17.50	22.42	13.76	19.27

Kilcockan	214	-3.11	40.65	17.00	24.00	23.94	9.43	10.26
Killea	1571	5.84	36.37	20.00	10.25	40.41	12.41	10.26
Killoteran	574	-0.96	35.47	16.00	13.50	32.55	12.73	10.38
Kilmacleague	398	0.24	34.17	5.00	10.00	29.92	13.16	6.49
Kilmacomma	465	2.20	39.90	19.50	15.00	33.27	13.52	10.12
Kilmacthomas	1367	-9.28	34.99	32.40	21.20	18.08	22.12	18.01
Kilmeadan	746	-4.87	36.06	26.00	12.00	23.86	19.48	14.39
Kilmeadan	757	0.32	36.07	13.67	12.67	32.39	14.44	5.94
Kilronan	214	10.49	35.98	11.00	6.00	47.06	1.89	6.38
Kilwatermoy East	122	2.23	42.62	7.00	20.00	32.93	9.09	4.00
Kilwatermoy West	203	4.23	39.41	8.00	13.00	35.54	7.27	4.76
Kingsmeadow	1093	-15.55	35.19	36.00	27.00	15.67	31.68	22.77
Kinsalebeg	574	-1.59	39.33	3.33	14.67	30.83	14.00	10.92
Knockaunbrandaun	210	-4.52	35.71	18.00	24.00	26.47	10.91	20.93
Knockmahon	396	-2.22	41.13	17.00	15.00	31.11	16.71	10.67
Larchville	944	-25.72	40.71	68.75	35.50	4.82	40.55	35.38
Lisduggan	993	-23.83	44.07	48.80	38.20	7.13	39.60	25.04
Lismore Rural	1237	-0.72	40.14	19.80	13.00	32.25	8.87	9.56
Lismore Urban	666	-5.39	34.57	26.00	14.75	26.28	15.64	17.15
Military Road	763	-13.83	36.45	45.75	28.75	16.32	30.28	12.30
Mocollop	244	0.57	36.07	5.00	19.00	28.14	9.72	9.80
Modelligo	328	1.46	40.55	10.00	18.00	31.22	6.59	10.00
Modelligo	294	4.26	38.10	9.00	11.00	26.06	3.61	3.77
Morrisson's Avenue East	510	-10.22	34.60	35.00	24.00	23.26	22.06	13.55
Morrisson's Avenue West	300	-18.07	40.00	45.00	25.00	10.19	26.09	31.48
Morrisson's Road	490	-20.32	38.60	51.33	38.67	11.46	33.15	34.05
Mothel	462	-0.69	31.93	13.50	12.00	27.75	13.93	7.07
Mount Sion	849	-8.39	25.47	41.60	20.00	26.81	29.65	28.14
Mountkennedy	433	5.32	35.31	9.50	14.50	30.92	2.31	8.19
Mountstuart	89	-5.74	49.44	33.00	7.00	29.27	16.67	11.11
Newcastle	487	2.23	39.21	9.00	11.50	34.41	9.51	7.23
Newport'S Square	543	-18.57	34.74	54.00	28.00	10.81	34.54	30.88
Newtown	1064	-0.62	41.32	34.00	12.75	40.76	10.36	8.47
Newtown	471	-2.87	38.21	13.50	19.50	24.89	10.70	11.80
Park	1520	0.33	22.65	40.22	12.44	37.97	26.20	23.15
Pembrokestown	500	3.48	36.02	12.50	11.50	41.22	12.15	7.04
Poleberry	1357	-2.47	26.25	43.29	15.14	30.34	22.71	21.54
Portlaw	1629	-5.87	38.32	22.33	18.50	22.76	17.73	14.05
Rathgormuck	236	5.35	45.34	6.00	16.00	28.37	5.36	5.71
Rathmoylan	1149	1.33	32.91	16.80	8.00	36.22	16.01	13.02
Reisk	1144	3.66	35.46	12.00	11.50	37.67	10.14	7.61
Ringville	1365	2.63	38.09	11.40	10.20	39.80	11.35	7.94
Roanmore	812	-14.75	35.12	57.67	25.00	17.02	31.89	30.03
Ross	279	3.07	36.56	9.00	14.00	32.95	7.35	6.90
Seskinan	414	-3.00	35.75	16.00	17.50	20.99	11.51	4.41
Shortcourse	301	-14.32	23.40	50.00	24.50	15.02	45.62	26.36
Slievekeale	593	-12.24	37.20	45.00	21.67	15.26	21.13	15.70
St. Mary'S	685	0.73	39.64	6.67	11.00	37.96	11.02	8.86
Stradbally	808	-0.85	38.03	15.75	13.75	34.52	14.92	13.18
Tallow	1262	-7.78	37.65	16.20	18.00	18.31	19.29	14.38
Templemichael	414	-0.97	35.29	8.00	10.50	28.41	14.51	5.67
The Glen	742	-4.61	25.87	42.00	10.60	24.40	32.48	29.91
Ticor North	2152	-7.71	37.34	23.86	19.29	18.23	15.93	14.15

Ticor South	381	-12.22	41.41	49.00	23.00	16.68	17.02	18.20
Tinnasaggart	86	4.25	34.88	0.00	4.00	25.49	8.70	0.00
Tramore	9293	-1.33	37.12	28.75	9.61	34.77	18.48	13.59
Whitechurch	205	4.92	33.17	14.00	13.00	27.56	3.77	2.63
Woodstown	600	4.85	39.96	9.00	7.33	44.41	10.08	4.96

Table 5.8: Pobal Geoprofiling Report County Waterford (EDs)

Traveller Accommodation

The Waterford City & County Council Traveller Accommodation Programme (TAP) 2019-2024 notes that a midterm review of the 2014-2018 TAP was conducted in 2016 and an updated assessment of need for the City and County was carried out. The need as identified is outlined in the following table.

Accommodation Type	Existing Need	Projected Need	Total
Standard Housing	20	7	27
Group Housing	5	-	5
Halting Site	5	9	14
Transitional Housing	3	-	3
Rental Accommodation Scheme	9	-	9
Private Rented/HAP Scheme	-	3	3
Total	42	19	61

Table 5.9: Summary of Proposed Accommodation need by Type Following the Mid Term Review

The highest demand in existing need is for Standard Housing and RAS. In terms of projected need the highest demand is for accommodation on Halting Sites. Standard Housing includes houses provided directly by Waterford City & County Council and by Approved Housing Bodies.

The accommodation provided during the 2014-2018 period included:

- Standard Housing units - 31
- Group Housing – 4
- Halting Site - 2

The TAP notes that In November 2018 there were 224 Traveller families resident in Waterford City and County. These families were living in a range of accommodation types including Standard Housing, Serviced Halting Site bays, Approved Housing Bodies and Private rented/RAS.

Of the 224 families and individuals identified in the Annual Estimate of Traveller families 2018, 148 had been satisfactorily accommodated leaving a total of 76 families and individuals whose accommodation needs have not been met.

The TAP includes the following breakdown of the accommodation type needed which was determined following an assessment of the accommodation needs of the 76 families and individuals without long term accommodation:

Accommodation Type	Number of Units required
Standard Housing	36
Group Housing	16
Halting Site	21
Long Term Supported Accommodation	3
Total	**76**

Figure 5.13: Existing Need for Traveller accommodation in County Waterford

The TAP also includes projected need for the period 2019-2024 included below in a summary table of existing and new household need.

Accommodation Type	Existing Need	New Household Need	Total Need
Standard Housing	36	15	51
Private Rented Accommodation	-	5	5
Halting Site	21	5	26
Transitional Housing	3	-	3
Group Housing	16	-	16
Total	**76**	**25**	**101**

Figure 5.14: Existing and Projected Need for Traveller accommodation in County Waterford

6.0 Conclusion

6.0 Conclusion

The Housing Strategy has been prepared in accordance with the requirements of the Planning and Development Act 2000 (as amended) taking into account the following:

- the existing need and the likely future need for housing in County Waterford,
- the need to ensure that housing is available for persons who have different levels of income,
- the need to ensure that a mixture of house types and sizes is developed to reasonably match the requirements of the different categories of households, including the special requirements of elderly persons and persons with disabilities,
- the need to counteract undue segregation in housing between persons of different social backgrounds.

The Housing Strategy provides a framework to inform future policies and objectives relating to housing in Waterford City and County. It includes the determination of housing requirements in County Waterford over the period of the development plan 2022-2028. Demographic, economic and social inputs have been examined and utilised to estimate projected population change, income change, housing affordability, household formation and associated housing needs in County Waterford. These inputs have been sourced from the CSO, ESRI, CBI, Daft, RPPR and from Waterford City and County Council amongst other sources. The information sourced is correct at the time of writing, however it is acknowledged that projected economic data, population and planning permission data may be impacted by the ongoing COVID-19 pandemic.

The Housing Strategy complies with the NPF requirement to undertake a Housing Need Demand Assessment (HDNA) to correlate and accurately align future housing requirements. The HDNA undertaken for County Waterford and documented herein provides a robust evidence base to support decisions about new housing supply, the proportion of social and affordable housing required, and the provision of specialist housing and housing related services. The HDNA undertaken can perform as a database to allow scenario testing to inform key decisions on housing need and supply, in line with NPF requirements. The HNDA contained herein also complies with National Policy Objective 20 of the NPF which requires a projection of the need for single housing in the countryside during the plan period.

The Housing Strategy includes an estimate of the amount of social and affordable housing that will be required within the county during the period of the plan in order to comply with Section 94 (4) of the Planning and Development Act, 2000 (as amended). In preparing the housing strategy, the Summary of Social Housing Assessments 2020 (prepared under section 21(a) of the Housing (Miscellaneous Provisions) Act 2009) has been analysed insofar as it relates to the development plan area.

As noted herein, the Housing Strategy has taken cognisance of the significant changes in planning legislation and policy, notably the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Region.

The report considers the potential increase in remote working impacting the structural demand for housing at both a national and regional level, with potential implications for distribution of population. In this regard, the Housing Strategy has had regard to the evolving situation regarding COVID-19 and assumptions made throughout the report are based on the best available evidence at the time of writing.

The projected housing demand for the 6 year development plan period as calculated using the methodology outlined in Section 28 guidelines (Housing Supply Target Methodology for Development Planning - Guidelines for Planning Authorities (2020)) is 4,824, providing an annual average housing demand for County Waterford of 804 units. This average has been utilised in projecting the annual household numbers, albeit a higher number of units is anticipated in the post-Covid 19 recovery phase in 2023-2024.

The identified social and affordable housing requirement ranges from 212 to 247 units annually during the plan period, equivalent to c.30% of the total of additional anticipated households in County Waterford. As noted in the preceding sections, in the case of County Waterford, a number of households that do not qualify for a mortgage can afford private rental for a 1 bed unit during the plan period, however a 1 bedroom unit would only be suitable for c.12% of these households, and this has been factored into the overall need.

The social (and affordable) requirements reflect the projected extent of 'housing need' during the strategy period. This relates to the additional anticipated households during that time and therefore it is in addition to the current extent of unmet need as per the social housing waiting list discussed in Section 3 and Section 5 of this report.

In relation to the spatial distribution of social housing need, the core strategy prioritises growth in the settlement hierarchy to Waterford City, Dungarvan and Tramore, in line with national and regional policy contained in the NPF and the RSES. The location preference data for social housing discussed above also notes that Waterford City, Dungarvan and Tramore are the most preferred locations for housing applicants. The policy framework under the NPF and RSES for concentrating growth to urban and built up areas, urban in-fill and regeneration will impact the spatial distribution of housing, with development plans required to comply with this policy direction. Based on analysis of the Pobal Deprivation Index, Pobal Geoprofiling Reports and the Pobal Deprivation Map for County Waterford, and having regard to the settlement strategy and planning policy in regards to population distribution, it is considered there is likely to be a social and affordable housing need in Waterford City, Dungarvan, Tramore and Dunmore East.

The number of households who have presented to Waterford Council Homeless Services has increased substantially year on year with 1,267 households presenting during 2020 (information provided by the Housing Section of Waterford City & County Council). Waterford City & County Council have prioritised homeless preventions, supported exits and sustained tenancies in 2020 through partnership and collaborative working with the Health Service Executive (HSE) and the various Homeless Service Providers in Waterford.

In compliance with the NPF requirement to project the need for single housing in the countryside, forecasts have been undertaken based on historical data with confidence intervals utilised (Figure 5.3). The intervals (or confidence bounds) illustrate the outer limits within which the single housing values from 2021 - 2028 are likely to fall within, forecasting figures from 162 to 218 annually out to 2028 (based on historical data). The regression analysis summarised in Table 5.3 provides a projection of one off housing permissions based on the regional unemployment rate, indicating an average of 141 from 2022-2028. Other variables may impact the demand for single housing in the countryside during the plan period, such as the impact of remote working and Covid-19 on settlement and employment patterns or the impact of government policy and planning policy, however the analysis provided herein is considered to provide data-led projections based on observable trends and analysis.

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Appendix 4
Retail Strategy

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

WATERFORD CITY & COUNTY RETAIL STRATEGY 2020

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CHAPTER 1

Introduction

1.1 INTRODUCTION

1.1.1 The Retail Planning Guidelines (RPGs) for Planning Authorities, issued by the Department of the Housing, Planning and Local Government (DoHPLG) in 2012, require Local Authorities to prepare retail strategies and policies for their areas and to incorporate these where appropriate into their Development Plans. In 2003, John Spain Associates prepared a report regarding retailing in Waterford City. This included a quantitative and qualitative analysis of the potential of Waterford City to accommodate further retail development. This report formed the basis for the retail policies and objectives set out in the then City Development Plan. Then in 2011 John Spain Associates prepared a new Retail Strategy for the City and this was adopted as part of the Waterford City Development Plan 2013-2019.

1.1.2 Then in February 2017 John Spain Associates prepared an update and addendum report to take into consideration the key changes to the planning policy framework guiding the development of the city. In particular the designation of the North Quays as a Strategic Development Zone (SDZ) and the emerging proposals for the SDZ area.

1.1.3 However, considering the increased demand for retail services that the City & County have experienced over the past number of years, and the challenge posed by the severe economic downturn experienced over the last decade, the time is opportune to review the retail strategy for both the city and county. Furthermore, with the enactment of the Local Government (Reform) Act in 2014 the Councils of Waterford County and Waterford City were merged to form a new unitary Waterford City & County Council. This is particularly relevant in the context of the forthcoming review of the current Waterford City Development Plan 2013-19 and the Waterford County Development Plan which is due to commence shortly following publication of the Regional Spatial & Economic Strategy, and which will see the formulation of a new combined City & County Development Plan 2022-2028. It is envisaged that the retail strategy will form an integral part of the City & County Council's overall vision for the development of Waterford City & County over the period of this new plan.

1.1.4 It is also pertinent in light of the ongoing growth in on-line retailing and the competition this is bringing to the traditional 'bricks & mortar' shops. This report reviews the vitality, attractiveness and viability of Waterford City Centre and the town centres of Dungarvan & Tramore as places to shop, do business, work, live, spend leisure time and further develop and set a direction for these urban centres over the next number of years. The report in particular identifies the pressures that Waterford City is facing from competing centres and from the growth of new retail formats through the development of online technologies and social media. The formulation of a detailed retail strategy is therefore imperative in order to ensure that the vibrancy and vitality of Waterford City, and the key towns of Dungarvan & Tramore are maintained, enhanced and developed to their full potential.

1.1.5 This report, and the empirical evidence which underpins it, was researched, collected and prepared prior to the Covid-19 Pandemic striking Ireland earlier this year. Since the outbreak of the Corona virus in March and the imposition of severe travel and operating restrictions, the retail sector has been dramatically impacted.

While convenience stores have been permitted to continue to trade throughout the lockdown period, albeit with social distancing requirements, comparison and bulky goods outlets have had to remain closed for the last three months. While many of these retail outlets have migrated or expanded into on-line sales, this is unlikely to be at the normal volumes of sales.

1.1.6 It is too early to assess either the short term or longer term impact which the pandemic will have on the retail sector, and there are no official statistics published to date which captures the changes which have been occurring and will continue to occur to retail trends. What we do know is that a number of large British based multiples such as Debenhams have already gone into receivership, and that a lot of 'bricks & mortar' retailers will have lost market share to on-line sales.

1.1.7 To plug this gap, and in order to be able to assess economic activity in real-time, the Department has compiled a set of alternative, 'ultra-high' frequency data for different sectors of the economy. These ultra-high frequency data provide reasonably approximations for 'directions of travel' for the economy and, as such, complement rather than replace official data. The most recent such document by the Department of Finance was published on the 8th June and titled *'Emerging economic developments - real-time economic domestic indicators'.* Some of the key findings for the retail sector from this publication are summarized below:

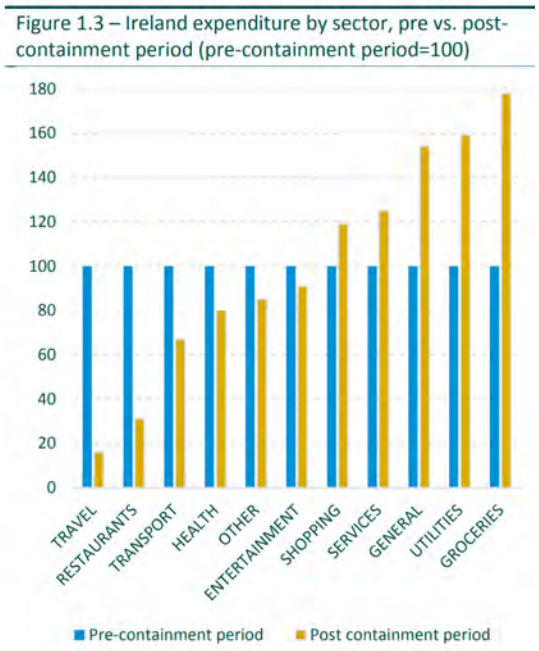


Figure 1.1 extract from 'Ireland expenditure by Secrot prevs post containment period Source: Revulot

1.1.8 What this Figure shows is that categories ordered by size of percentage change in the total volume of expenditure ranging from 84% decline in travel to 78% increase in groceries.

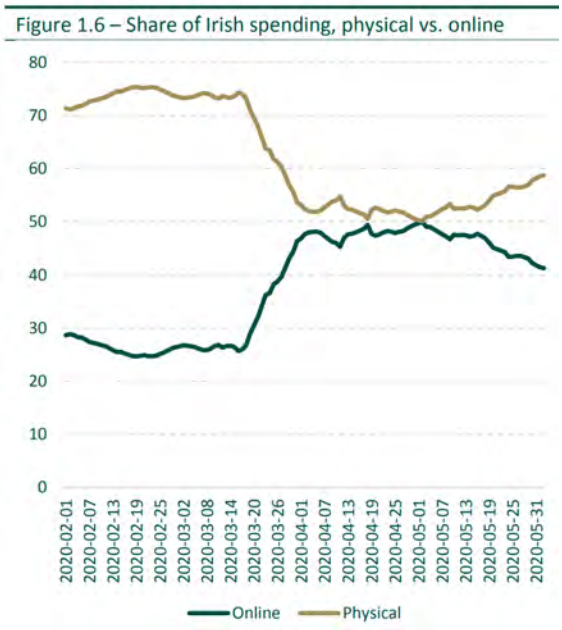


Figure 1.2: extract of Figure 1.6 from 'Shrae of Irish Spending' (Source: Revulot)

1.1.9 Figure 1.2 illustrates that the pandemic has led to an increase in a proportion of expenditure carried out online, accounting for 30 per cent of total expenditure in early February, to close to 50 per cent in late April, however this trend has slightly reversed in recent weeks to just over 40 per cent as some restrictions have been lifted. However, as shown on Figure 1.3 below, as of 21st May, the proportion of expenditure made online in other countries ranges from 41% to 71%, with Ireland being behind Spain, Demark, Britain and Italy.

Figure 1.3 extract of Figure 1.7 from 'Online shrae of total expenditrure by County (Source: Revulot)

1.1.10 Without any further published data it is not possible to further update this report or to predict with any certainty what is likely to happen in the retail industry in the years ahead. However, assuming that the Irish economy does substantially recover over the next 18-24 months, then we would expect the retail sector to make a reasonable recovery as well. The convenience market is likely to hold its position from pre-Covid times. For comparison retailing the situation is likely to be more fluid, particularly with increased competition from on-line sales.

1.1.11 During the lockdown period consumers generally have become more familiar and comfortable with shopping on-line, and this is likely to lead to an acceleration in growth of market share accounted for by internet sales in the years ahead.

1.1.12 Overall there will be a short term hit from the Covid-19 pandemic to the comparison retail sector, which may add approximately two years until we start to see growth again in both volumes and monetary terms, and this growth in in-store sales may well be retarded by an increasing share by on-line sales. What will be important is to closely monitor and review trends as we emerge from the pandemic to see if new patterns are emerging in the retail sector and customer behaviours.

1.2 WATERFORD CITY & COUNTY IN CONTEXT

1.2.1 Waterford City is the principal urban centre in the County and is the main economic driver for the south east under the National Planning Framework. The role of the City has undergone significant change in recent years, as it has diversified its economic base beyond the traditional manufacturing sectors into tertiary services.

1.2.2 As was detailed in the Waterford City Centre Report from 2009, Waterford's retail offer while improving has not radically expanded geographically beyond the traditional city centre area. Given the constraints of a tight urban core with multiple ownerships and access and archaeological constraints, site acquisition has proven difficult. A major city centre scheme has been granted permission by the Council in the Michael St./New Street area, but to date this site has remained undeveloped. In addition, while the North Quays have been designated as a Strategic Development Zone, and a Planning Scheme has been approved by An Bord Pleanala which would permit a large scale mixed use development, including retailing, no actual development has commenced to date. The advanced contracts and enabling works have been progressing over the last 12 months.

1.2.3 The City is experiencing increased pressures from outside influences and in particular national competing centres in Cork & Dublin which have increased their attractions and retail offerings. Furthermore, the City is now more accessible due to the completion of the M9 to Dublin, the N25 City Bypass River Crossing and the City Ring Road. This however, may have the converse affect, in that it makes it easier for residents of the City to travel to other centres including Kilkenny, Dublin and Cork, thus potentially exacerbating the problem of expenditure leakage.

1.2.4 Waterford City retains a distinctive character, yet despite an attractive and historic city centre, the City has not benefited to the degree it should from the process of rejuvenation and redevelopment as seen in some other major urban centres in the region. The City has not fully realised its potential to develop into a major commercial and retail centre for the region. Whilst the City contains a reasonable range of shops and services, and in particular independent retailers, the choice, diversity and overall mix of retail could be greatly improved, in particular the City lacks major retail anchors and national and international fashion multiples that would normally be found in a City of this scale. It is evident that the City has the potential to develop much further, if given the right range of actions, policy framework and economic conditions.

1.2.5 Dungarvan and Tramore are the two other principal urban centres within the County, each with a population around the 10,000 mark. Each plays an important, but distinctive role within their respective catchment areas. Dungarvan, as the 'County Town' and seat of the former Waterford County Council, provides a range of retail and other services to a wide catchment area in west Waterford, and as a result has a reasonably wide retail offering for both convenience and comparison goods, including bulky goods. Tramore, given its proximity to Waterford city, operates more as a commuter town, and as such has a much more limited retail offering, mainly focused on convenience goods. With the opening of Tesco and Lidl supermarkets in the town in recent years, Tramore has become more self-sufficient for convenience shopping.

1.2.6 The County also contains a number of other towns and villages, with their own distinctive character, and which provide a local shopping function. This retail offer which (whilst small) is specialised and niche/arts/craft based in towns such as Ardmore; Lismore, Dunmore East (tourism and marine based), and Cappoquin. The retail planning policies should endeavour to maintain and grow this local distinctiveness of the towns and villages and build on their specific assets for niche retail markets, as well as maintaining their important local convenience shopping function.

1.3 THE PURPOSE OF THE RETAIL STRATEGY

1.3.1 The purpose of the retail strategy is to implement the objectives of the Retail Planning Guidelines. A key aim will be to ensure that Waterford City fulfils its role as the principal retail destination in the County and the South East region and performs as the major economic driver for the South East region, and that the towns of Dungarvan & Tramore continue to play important complimentary and supportive roles within their respective catchment areas, in addition to the provision of an appropriate range of retail facilities at a local level throughout the County.

1.3.2 In preparing the strategy, particular regard was had to:

i. Consideration of new retail trends, best land use planning practice and changes in national policy and market shifts;

ii. The impact of new national and regional planning policies;

iii. Updated economic data;

iv. Population growth based on the 2016 Census and predicted trends in the recently published Regional Spatial & Economic Strategy for the Southern Region;

v. The vitality and viability of Waterford City Centre including a

(a) Review of changes in land use within the city & town centres;
(b) Review suitability of existing floorspace;
(c) An assessment of proposed developments on the retail profile and structure of the city and county.

vi. The impact of major retail development in competing centres.

vii. The impact of the growth in on-line retailing

1.4 APPROACH

1.4.1 The approach taken in the formation of the retail strategy included the undertaking of baseline survey and research. This comprised the following components:

BOX 1.1: APPROACH

Policy Analysis: National, regional and local policies were reviewed in the context of the retail strategy with particular reference to the retail hierarchy and existing and emerging policies.

Economic Context: Retail expenditure is influenced by the economic performance of the City, County, of the region and the national economy. The economic context for the analysis was therefore established.

Retail Trends: A review of recent retail trends was carried out and an assessment made of their impact and influence on the retail profile and function of Waterford City & County.

Survey: Existing retail floorspace data for the city and county was updated. A household survey was undertaken to establish the existing shopping patterns in the City & County. A survey of 500 respondents was carried out. This provided data on the extent of leakage to other competing centres and highlighted shoppers concerns regarding the quality and quantum of existing retail floorspace. The results of the survey helped to define existing patterns of inflows and outflows of expenditure from the City & County and its catchment area. A shopper's survey provided a snap shot view of retailing in the City from the shoppers perspective. A total of 500 shopper questionnaires were completed in the city, Dungarvan & Tramore to inform the analysis.

Qualitative Survey: A qualitative health check survey was carried out in order to assess the current level of vitality and viability of Waterford City and the town centres of Dungarvan & Tramore to assess their strengths and weaknesses in retail terms.

Quantitative Analysis: Population analysis, expenditure analysis, turnover analysis and overall analysis were carried out.

1.5 PREPARATION OF RETAIL STRATEGY

1.5.1 Following the analysis set out above, the strategy then sets out clear policies, actions and a vision for the future for Waterford City & County. The strategy will consider the development potential of Waterford and the preparation of policies to promote the development of a distinctive retail identity for the City, Dungarvan & Tramore.

1.5.2 The qualitative and quantitative analysis and other inputs as outlined above are fundamental in the capacity assessment of the City & County's need for future convenience and comparison floor space. In brief, the assessment comprised the following principal elements:

i. Population forecasts.
ii. Establishing convenience and comparison expenditure between 2010 to 2016 and 2016 to 2022.
iii. Establishing the extent of existing floor space and its turnover.
iv. Analysing the above data to determine the potential convenience and comparison spend available to support new retail floor space to 2026 and 2031.

1.5.3 The final component of the study was to determine the retail strategy for Waterford City & County to 2026. The factors influencing this included:

- Retail hierarchy.
- Population size and distribution.
- Sequential test.
- Nature of retail provision and need – convenience, comparison and retail warehousing.
- Opportunity sites for retail development.
- The shopping environment and mechanisms to enhance the vitality and viability of Waterford City Centre and the town centres of Dungarvan & Tramore.
- The need to sustain and enhance Waterford's regional role and prevent unnecessary leakage of expenditure to competing centres.
- Opportunities to attract enhanced retailing to the City and key towns in the county.

1.5.4 The report concludes with recommendations regarding the criteria and actions for assessing future retail development in the City & County.

1.6 REPORT STRUCTURE

1.6.1 The report structure is set out in Box 1.2.

BOX 1.2: REPORT STRUCTURE

Chapter 1:	Introduction
Chapter 2:	Policy Context
Chapter 3:	Economic Context and Current Trends in Retailing
Chapter 4:	Survey Approach and Analysis
Chapter 5:	Health Check Assessment
Chapter 6:	Quantitative Assessment
Chapter 7:	Policies, Action and Vision for the Future
Chapter 8:	Criteria and Actions for Assessing Future Retail Development

CHAPTER 2

Policy Context

2.1 INTRODUCTION

2.1.1 The purpose of this chapter is to review the relevant planning and sectoral policy documents which will guide the development of Waterford City & County and influence the future expansion of retail services in the City & County.

2.1.2 In this section, we identify the current and emerging plans, policies and proposals that are relevant to the review of Retail Strategy in the following order:

- National
- Regional and
- Local

2.2 NATIONAL LEVEL

2.2.1 Four national level plans, strategies and guidelines are of particular relevance to the shape and direction of the Strategy. These are

- National Planning Framework 2018
- The National Development Plan 2018-2027
- Retail Planning Guidelines for Local Authorities 2012
- Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020

National Planning Framework 2018

2.2.2 The National Planning Framework (NPF) was published on 18th February 2018. The NPF provides a broad planning framework for the location of development in Ireland over the next 20 years. The key objective of the National Planning Framework is the achievement of more balanced and sustainable regional development, and the promotion of compact growth in the cities and towns. The strategy examines the growth patterns of the various regions in the country and provides guidance on the future direction of this growth. It also identifies potential development patterns for different areas and sets out overall policies for creating the conditions necessary to influence the location of different types of development in the future.

2.2.3 Under the National Policy Objective 2a the NPF sets a target that half (50%) of future population and employment growth is to be focused in the State's five cities and their suburbs. It further states that within the cities at least 50% of all future housing must be located within the existing built up area of the city & suburbs.

2.2.4 With regard to Waterford City, the NPF projects that Waterford's current population of c. 50,0000 people should grow by between 50-60% by 2040. It is stated that *"many of the challenges facing Waterford are similar to those that confront other cities, especially in the area of planning and development and maximising the*

value of key assets, including in Waterford's case a major national port complemented by a compact city with a high quality urban fabric".

2.2.5 The NPF recognises that Waterford is the principal urban centre in Ireland's south-east and is unique in having a network of large and strong regional urban centres in close proximity within each of the surrounding counties that both complement the role of Waterford and perform strong regional and local economic and developmental roles for their own areas. Given the unique urban composition of the south east and the objective to enable Waterford City to become a regional city of scale, an agreed development strategy is required to build Waterford's population and employment base substantially while enabling surrounding urban centres to perform complementary roles.

2.2.6 From a national perspective, the NPF recognizes that a stronger Waterford City would lead the development of the wider south-east, which has experienced slower economic recovery than the national average in recent years, together with high unemployment rates, lower value job opportunities and less job creation.

2.2.7 The NPF identifies the key challenge for Waterford is to build scale and enhance urban quality through employment led growth. The City's existing employment base includes pharma, med-tech and engineering/ advanced manufacturing sectors, as well as emerging indigenous enterprises. There is capacity to build on all of these strengths while enhancing Waterford's small-city attractiveness and quality of life. This includes capitalising on good and improved connectivity to Dublin and Cork in particular. Waterford also offers opportunities as a location for support functions in areas such as financial or professional services that may wish to avoid larger urban areas. It is also an emerging tourist centre, located on the route from Rosslare to Cork and the South-West and as a destination for cruise traffic**.**

National Development Plan (2018 – 2027)

2.2.8 The National Development Plan covers the period from 2018-2027. The plan sets out a national development strategy in the areas of physical, social and community infrastructure.

2.2.9 The National Development Plan aims to meet a number of key challenges which includes the following:

- Remove remaining infrastructural bottlenecks that constrain economic development;
- Ensure that the enterprise sector continues to expand and attract investment;
- Recognise that economic and social progress are inter dependent;
- Ensure that the National Planning Framework policies and objectives are reflected in the implementation of the Plan;
- Protect, preserve and improve the natural environment;
- Ensure integrated, value for money governance.

2.2.10 It is detailed that the plan will promote regional development with a particular focus on investment in the State's five cities, including Waterford. It outlines that the

key to regional development will be the efficient utilisation of Plan investment, especially in infrastructure. The investment framework and strategy in the NDP will assist and enhance physical and spatial planning and promote regional development.

2.2.11 The NDP details that investment priorities for Waterford include:

- Creation of effective bus based public transport network (BusConnects) building on recent fleet investment through widespread bus prioritisation measures.
- Enhancement of road links to other cities along the Atlantic Road Corridor.
- Enhanced intercity rail services between Waterford and Dublin.
- Enhancing port facilities and facilitating relocation of port activities.
- Investment in the R&D capacity of Waterford Institute of Technology to underline the importance of education to Waterford as a centre of excellence.
- Development of industry/Institute of Technology linkages within the South East Region.
- Renewal and development of the North Quays.
- Development of strategic sites as part of IDA Ireland Strategic Sites Initiative.
- Continued support for Waterford Regional Airport.

Retail Planning Guidelines 2012

2.2.12 The Retail Planning Guidelines, issued under Section 28 of the Planning & Development Act 2000, as amended, provide national level policy guidance in relation to retailing. The guidelines provide clear objectives for retail policy, set out guidance in relation to specific retail formats and issues advice in relation to the location of new retail development. The guidelines represent a plan led approach to retail development at a national level, which is then followed on by the use of county and city retail strategies to guide development at a localised level. The guidelines define five key objectives. These may be summarised as follows:

- To ensure that in future all development plans incorporate clear policies and proposals for retail development.
- To facilitate a competitive and healthy environment for the retail industry of the future.
- To promote forms of development which are easily accessible particularly by public transport – in a location which encourages multi-purpose shopping, business and leisure trips on the same journey.
- To support the continuing role of town and district/suburban centres.
- A presumption against large retail centres located adjacent or close to existing new or planned national road/motorways.

Sequential Test

2.2.13 One of the key features of the guidelines is the introduction of the sequential test

approach in relation to assessing retail applications, with the focus on town/city centres as the preferred location for new retail development. Where there are no town/city centre sites available, the next preferred option is edge of centre sites. Out of centre sites should only be considered where there are no town/city centre or edge of centre sites available or where satisfactory transport accessibility realistically cannot be ensured within a reasonable period of time.

Retail Hierarchy

2.2.14 The guidelines also set out the principle of the retail hierarchy. The primacy of Dublin is recognised, however it is detailed that Cork, Limerick, Galway and Waterford – the second tier of the hierarchy, with a combined urban population amounting to 10% of the State account between them for a further 19% of comparison turnover and 15% of convenience turnover. It is outlined that these centres provide a range of high order comparison shopping which is largely unmatched elsewhere. Within each county, retailing also follows a hierarchical pattern from town centre, district/suburban centre, local centre and village centre. The principle of a hierarchy of retail centres is an integral part of a retail strategy as it is a general principle that retail development will be promoted and existing provision enhanced within existing centres.

The Role of Town Centres

2.2.15 The guidelines recognise that town centres, such as Dungarvan or Tramore, together with district/suburban centres like Ardkeen or Kilbarry and major village centres like Tallow serving rural areas provide a broad range of facilities and services and act as a focus for the local community.

2.2.16 The main thrust of the retail guidelines is that the vitality and viability of existing town centres should be protected and enhanced. According to the guidelines, vitality is a measure of how active and buoyant a centre is, whilst viability refers to the commercial well being of a town. Planning authorities are encouraged to adopt an active role in protecting and enhancing the vitality and viability of existing town centres.

2.2.17 The guidelines indicate a number of indicators which determine the vitality and viability or health of existing town centres. These indicators include the range and quality of activities in a centre, mix of uses, accessibility to people living and working in the area and general appearance.

Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020

2.2.18 This document is designed to show how we can reverse current unsustainable transport and travel patterns and reduce the health and environmental impacts of current trends and improve quality of life. The document outlines that key to achieving this will be better integration of land use and planning and transport policies. A key target of the document is that future population employment growths will predominantly take place in sustainable compact forms which reduces the need to travel for employment and services. A key action of the guidelines is a general restriction on the development of out of town retail centres except in exceptional circumstances and consideration of a similar requirement that parking charges be introduced for most existing centres.

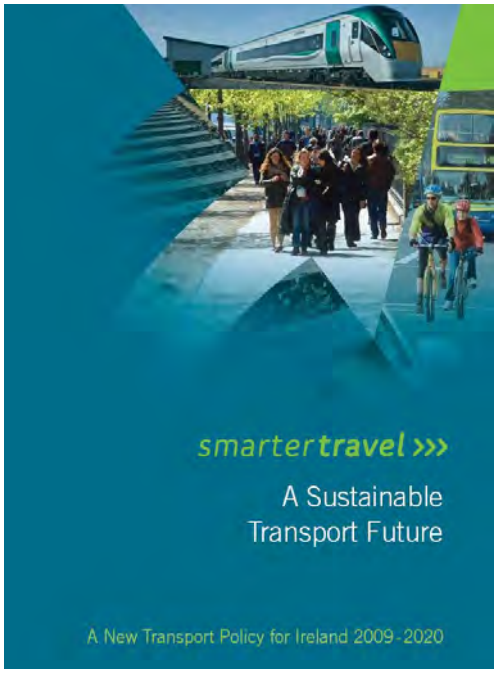


Figure 2.1: Smarter Travel

Conclusions

2.2.19 A review of National Policy identifies that Waterford City is a designated as the key economic driver for the region and thus is to be the focus of sustained infrastructural investment in order to ensure it has a critical mass of population and services commensurate with its status. Retailing is an important factor in ensuring that the City and the key towns have the necessary attractions and facilities for their residents and visitors. It is a critical element in ensuring that the main urban centres are attractive place to live, work and invest in and to maintain their vitality and vibrancy. The consolidation of retailing in the City is also important from a sustainable planning and development perspective as the City Centre is the most accessible location in the County and is well served by public transport infrastructure. The consolidation of retailing in the city centre also ensures that there is potential for commercial synergy and linked trips. It is also important from a tourism perspective.

2.3 REGIONAL LEVEL

Regional Spatial & Economic Strategy for the Southern Region 2019-2031

2.3.1 The Southern Region covers all of the cities and counties in Munster, together with the counties Carlow, Kilkenny, and Wexford in the south-east. The region covers an area of 29,500 sq.m. representing c. 42% of the area of the State. The Southern Region had a population of 1.58 million in 2016, representing one third of the State's total population. The Regional Spatial & Economic Strategy (RSES) replaces the former Regional Planning Guidelines, and sets out a 12-year strategic development framework to guide the future development of the region in line with the policies and objectives of the National Planning Framework at regional level. The RSES establishes a broad framework under which the society, economy,

environment and use of land should evolve, identifying key priorities for investment. The RSES also incorporates specific development strategies for each of the three metropolitan areas within the region, centred around Cork, Limerick & Waterford Cities. Of most relevance for this report is the Metropolitan Area Strategic Plan (MASP) for Waterford. The draft Regional Strategy and Metropolitan Plans are due for final adoption by the Southern Regional Assembly at the end of January 2020.

2.3.2 A key component of the Regional Strategy is to strengthen the settlement structure of the region, to capitalise on the individual and collective strength of the region's three cities, and the network of key towns. The RSES specifically recognises the importance of the three cities as drivers of national growth, and are key regional centres which require significant investment. The cities provide the pillars on which to base a coherent settlement and economic strategy which underpins the RSES, including the identification of strategically located key towns, including Dungarvan.

2.3.3 It is outlined in the RSES that the population in the South-East in 2016 was 509,500, and by 2026 it is projected to grow to between 561,000 – 572,000, and by 2031 to between 581,500-598,500.

2.3.4 A summary of the key elements of the strategy for structuring the overall regional growth, building accessible centres of scale and securing compact and sustainable growth are set out Figure 2.2 taken from the Southern Region Regional Spatial & Economic Strategy.

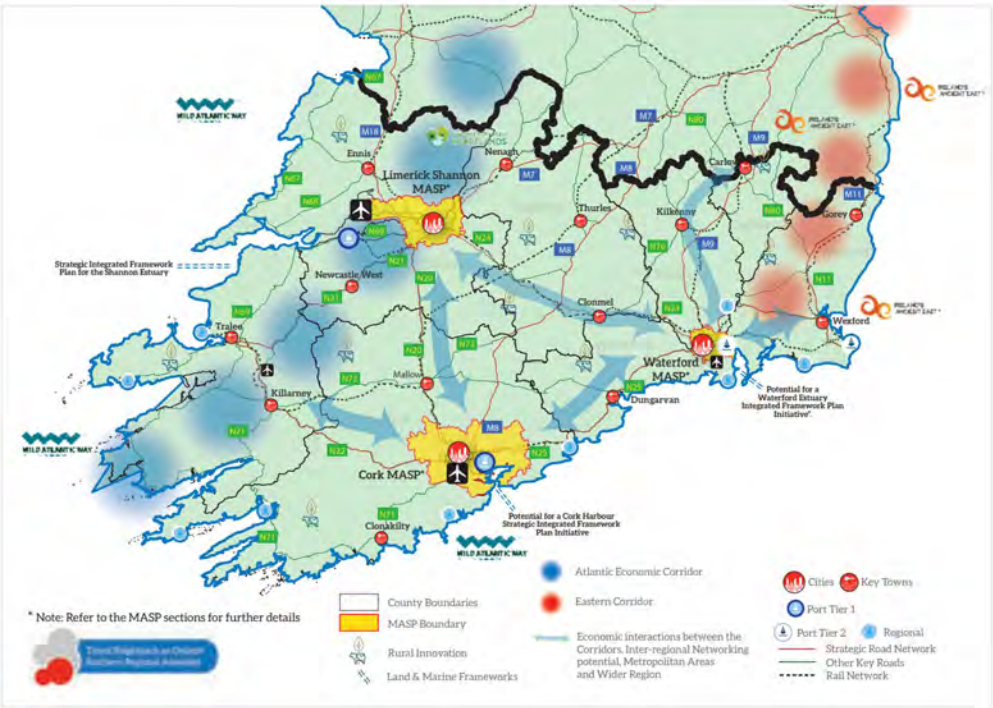


Figure 2.2 Strategy Map taken from the Regional Spatial & Economic Strategy for the Southern Region

Waterford Metropolitan Area Strategic Plan (MASP)

2.3.5 The MASP is a new addition within the planning hierarchy and sits between the

regional and local level, and provides a strategic planning framework to guide the development of the city and its immediate hinterland. Figure X.Y below illustrates the extent of the area covered by the Waterford MASP. The MASP area encompasses an area of 143 sq.km. of which c.85 sq.km. is in Waterford City & County and c. 58sq.km. in County Kilkenny. The Waterford Metropolitan Area recorded a population of just under 60,000 in 2016.

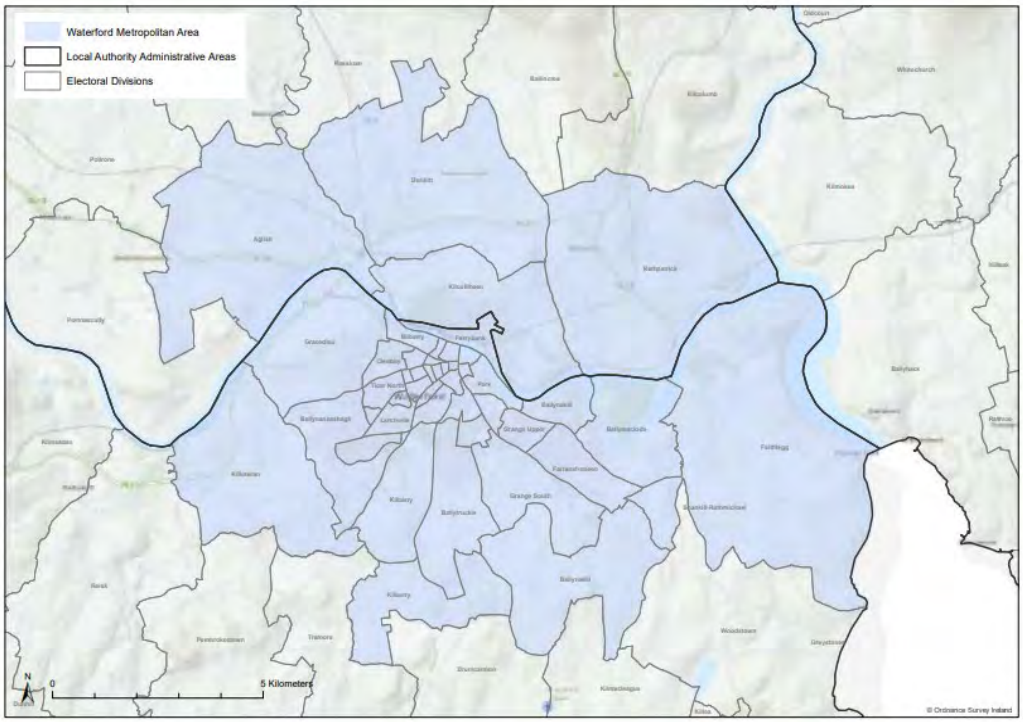


Figure 2.3 Waterford Metropolitan Area Source: Southern Regional Assembly RSES

2.3.6 Section 3.1 of the MASP sets out the vision for the Waterford Metropolitan Area which is:

"Waterford - a City and Metropolitan Area of scale and significance, driving regional growth and prosperity and realising its full potential on behalf of the local and national population.
A sustainable, dynamic and resourceful Place where people will seek to visit, live, work, invest, experience and socialise in, as a matter of choice.
The Waterford Metropolitan Area will embrace the concept of the Concentric City, North & South of the River, as described in the Waterford Planning, Land Use and Transportation Study (PLUTS) 2004-2020."

2.3.7 The Waterford MASP sets out the following population projections for the metropolitan area:

Table 2.1 Waterford Metropolitan Area Population Projections

Table 1 | *Population Projections 2026 and 2031 for the Waterford Metropolitan Area*[3]

Settlement	2016	2026	Uplift	2031 (See Note 5)	Uplift (See Note 5)
City & suburbs (Kilkenny) + 60% to 2040	5,288	6,608	1,320	7,268	660
Remainder Metropolitan Area (Kilkenny) + 30% to 2040	2,951	3,321	370	3,506	185
City and suburbs (Waterford) + 60% to 2040	48,216	60,716	12,500	66,966	6,250
Remainder Metropolitan Area (Waterford) + 30% to 2040	3,399	3,819	420	4,029	210
METRO AREA TOTAL POP. (+34,007 to 93,861 in 2040)	59,854	74,464	14,610	81,769	7,305

2.3.8 The ambitious targets for 60%+ population growth by 2040 seek to build the critical mass of Waterford as a balanced concentric metropolitan area, north and south of the River Suir. In the long term a greater proportion of the population is projected to live north of the river.

2.3.9 The steps identified in the MASP required to achieve this core objective are both long term and short term: "*Short term: in terms of physical development, the early enablers that will start the process are (a) the development of a new bridge to link the City Centre to the North Quays, (b) relocation of the railway station to a new Integrated Transport Hub on the North Quays and (c) development of the Abbey Link Road in Ferrybank. All 3 enablers support significant population and employment growth north of the river. All 3 enablers are identified in the RSES & MASP and both the New Bridge and Abbey Link Road are currently in the planning phase and could be ready to proceed in the next 2 years with funding. Long Term: in order to re-balance the city there will be a need for a high degree of co-ordination across the entire Metropolitan Area. The long terms goals include building additional river crossings to create sustainable movement networks across the metropolitan area, increasing north-south connectivity and creating attractive high-quality urban neighbourhoods with local amenities using LAP and Masterplan processes. As required under the NPF, 50% of all new housing within Waterford City and Suburbs is to occur within the existing city and suburbs footprint, through brownfield, infill and regeneration. Outside of Waterford City and Suburbs, 30% of all new homes that are targeted in settlements is to occur within their existing built-up footprints as per National Policy Objective 3 (c) of the NPF."*

2.3.10 In terms of retail development, the Waterford MASP sets out the following policy

objective:

"*Waterford MASP Policy Objective 19: Retail:*
a. Within one year of the adoption of the RSES/MASP a Joint Retail Strategy shall be prepared for the Waterford Metropolitan Area in accordance with the Retail Planning Guidelines. The Joint Retail Strategy shall include – inter alia- the defined area of the Core City Shopping Area, the location of Suburban or District Shopping Centres, a map to indicate sustainable travel routes to/from each shopping area which prioritise cycle and pedestrian access over cars.
b. It is an objective to protect and enhance customer experience of visiting Waterford City Centre through facilitating a mixed expansion of services including high order comparison retailing in conjunction with service, cultural and entertainment facilities through appropriate and sensitive redevelopment and infill development."

2.3.11 The MASP identifies that the city centre and inner urban areas will have a pivotal role in the development of the metropolitan area and wider city region, and that change will be driven by the focus on making the city centre more **accessible**, more **vibrant** and more **attractive.**

2.3.12 The MASP identifies that city centre should become more accessible through:

• New Bridges connecting the North Quays / wider North Shore & Ferrybank area to the City Centre;
• Relocated Railway Station located on the North Quays with more direct access to city centre on the south shore;
• Improved access into the City Centre for City Bus Services and improved services under the new contract with Bus Éireann with more Bus Priority on city streets and through neighbourhoods;
• The City Centre will link the existing Waterford Greenway to the planned Greenway to New Ross and planned Cycle route to WIT.

2.3.13 The city centre should become more vibrant through:
• Development of the North Quays adding a mix of uses at high density and creating a new city centre quarter on the north shore of the River Suir;
• Urban Regeneration to bring under used or derelict land and buildings in the city centre and inner areas back into residential use. The Regeneration will bring back more people into the City and a mix of uses which can provide flexible spaces for business and social enterprise, as well as arts and cultural uses;
• Active Land Management in the City Centre to support the regeneration process;
• Actions to deliver Arts and Cultural Space in the Cultural Quarterand growing Festival Activity bringing more people to the City;
• Actions to support and develop the primacy of the City Centre for Retail supported by a Joint Retail Strategy for the MASP Area between Kilkenny County Council & Waterford City and County Council.

2.3.14 The city centre should become more attractive through:

• Ongoing Public Realm works improving the quality of the urban environment to make the City more walkable and pedestrian friendly;

• Development of Tourism and Heritage facilities around the Viking Triangle and the House of Waterford Crystal.

2.3.15 The Waterford MASP also recognises the importance of the regeneration of the North Quays to vitality and prosperity of the city. The North Quays SDZ lands comprise 8.23 hectares and the SDZ Planning Scheme estimates that the site could accommodate a large scale mixed use development including retail, food, offices, hotel and leisure and c. 200 housing units. The MASP sets out the following objective for the North Quays:

"Policy Objective 9: Local Authorities and Public Bodies shall implement actions to support the extension of the City centre into the North Quays and develop a vibrant urban centre focused on the North Quays including priority for investment in the infrastructure to deliver New Bridges connecting the City Centre on the south bank of the River. All such development and infrastructure shall address brownfield and contaminated land issues and shall be subject to the outcome of environmental assessments and the planning process."

- a thriving, human–scale, cultural and social environment, concentrated around distinctive street patterns, mixes of restaurants, cafés, bars and attractive shops;
- a high quality physical setting in terms of sensitive conservation of structures of architectural heritage merit, contemporary architecture, street paving, formal and high quality public spaces and parks;
- pedestrian-friendly zones.

Conclusions

2.3.16 The policies of the Regional Spatial & Economic Strategy serve to channel population growth and development into a hierarchy of settlements. Whilst the south-east region has grown over the past number of years, it is highlighted that in Waterford this rate of growth was less than the average for larger urban areas across the region. The importance of retailing in the local economy is clearly acknowledged in the strategy as is the need to create dynamic, vibrant and highly accessible urban centres in order to encourage people to live, work and invest in the region. In this context, the primacy of Waterford City as the economic driver for the South East Region must be fostered, developed and enhanced to ensure that the region reaches the critical mass of population and targets set out in the Regional Strategy.

2.4 LOCAL PLANNING POLICY

2.4.1 At the City & County level, the plans and strategies, which have an influence, or will have an influence on the retail strategy are:

- Waterford City Development Plan 2013-2019
- Waterford Planning and Land Use Transportation Study (PLUTS) 2004-2020
- Waterford City Centre Report 2009
- Waterford North Quays SDZ Planning Scheme
- Waterford County Development Plan 2011-17
- Dungarvan Town Plan 2012-18

- Tramore Local Area Plan 2014-2020

Waterford City Development Plan 2013-2019

2.4.2 The City Development Plan sets out the then Waterford City Council's policies and objectives for the development of the City from 2013 to 2019. The plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environmental assets of the city.

2.4.3 It is detailed that the City Centre needs to assert itself as the commercial and cultural capital of the region and the economic, social and physical core of the City. It is stated that the identification of strategic development sites for City Centre activities and the expansion of city centre uses, primarily retailing, forms an important element of the plan. It is outlined that the focus for new commercial development will be the city centre with major opportunities arising on the North Quays, Michael Street and Bolton Street.

2.4.4 The City Development Plan includes a whole chapter dedicated to retailing, which in turn is based on the 2012 City Retail Strategy. Of particular relevance to this report is the fact that the Plan sets out the current retail hierarchy for the City. This is shown at Box 2.1 below:

BOX 2.1: WATERFORD CITY DEVELOPMENT PLAN 2013-2019 RETAIL HIERARCHY

1. The City Centre;

2. The District Centres at:

Ardkeen/Farronshoneen;
Lisduggan;
The Inner Relief Road/Tramore Road;
The Hypercenter, Morgan Street
Abbeylands in the northern environs in County Kilkenny.

3. Neighbourhood centres at:

Cleaboy
Kilcohan/Airport Road
Ballinakill
Carrickphierish
Ballybeg
A proposed site at Knockboy
Ross Abbey Shopping Centre Ferrybank

4. Corner shops & Forecourt Outlets;

5. Retail Warehousing.

2.4.5 With regard to the City Centre, it is acknowledged that the City is the primary retail centre in the region and the focus for comparison retail development. It provides

the main location for the sale of higher order comparison goods and is therefore at the top of the hierarchy in the region. It is stated that it is necessary, in line with the national guidance to protect the dominant position of the City Centre particularly for the sale of comparison goods.

2.4.6 It is the policy of the plan:

- To acknowledge the City Centre as the primary retail centre for high and middle order retail goods for the region and to protect and reinforce this role.
- To facilitate the expansion of, and improvement in the quality of the retail offer.
- To protect the retail function of the core shopping area.

2.4.7 The role of district/suburban centres is also acknowledged in the plan, and that they can perform an important function for the local community. The range and volume of comparison floorspace in District Centres should be of an appropriate scale, be confined to low and medium order comparison goods and should not compete with the City Centre.

2.4.8 The plan acknowledges the important role that neighbourhood centres have in serving a local shopping function and it is a policy of the plan to provide an adequate and appropriate scale of retail and other services within the existing and proposed neighbourhood centres.

2.4.9 With regard to retail warehousing, the plan anticipates that there will be no requirement for additional retail warehouse floorspace within the catchment up to 2022. This is not surprising having regard to the extent of retail warehousing floorspace recently developed and permitted within the Waterford City area.

2.4.10 The plan identifies the core retail area and states that the traditional core shopping area of the City Centre consists of Arundel Square, Barronstrand Street, Broad Street, Patrick Street, John Roberts Square, Georges Street, John Street, Michael Street and South Quays from Gladstone Street to Exchange Street. Secondary shopping streets include O' Connell Street and the South Quays west of Gladstone Street. It is the policy of the plan that the core shopping area will form the primary focus and preferred location for new retail development. Where it is not possible to provide for the form and scale of development that is required on a site within the core areas, then consideration can be given to sites on the edge of the core area.

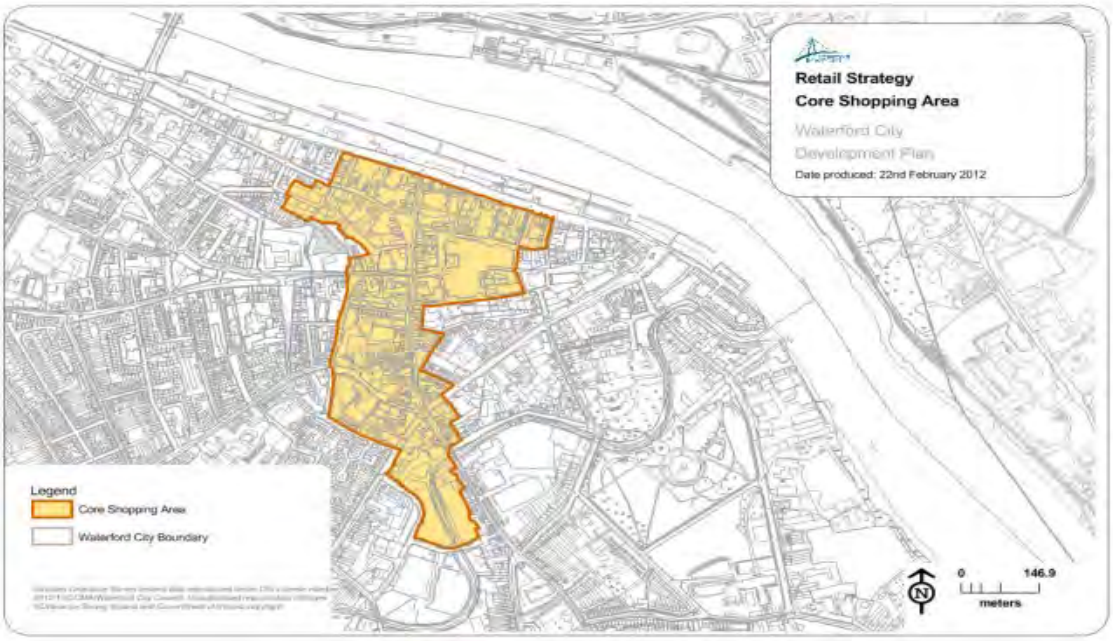


Figure 2.4 Definition of Waterford City Core Retail Area in City Development Plan 2013-19

2.4.11 The plan acknowledges that there is clear capacity for a substantial increase in comparison shopping floor space in the City Centre and that in order to encourage the scale of development required in the City, that there will be a clear presumption against comparison shopping development in the suburbs, other than for low order goods required to service local needs.

2.4.12 In terms of convenience floorspace, the plan details that the development of the existing district/suburban centres has catered for the floorspace requirements which arose during the plan period. The plan envisages that the development at Farronshoneen/Ardkeen and the redevelopment of the Lisduggan, Poleberry and Morgan Street Centres and the development of neighbourhood centres at Carrickphierish and Knockboy is likely to cater for the convenience requirement over the plan period.

2.4.13 The plan recognises the need to enable the City Centre to compete as a high level retail destination. The strategy requires the redevelopment of key sites within the plan period. This will entail restrictions on comparison retailing in the suburbs.

2.4.14 With regard to the core retail area it is the policy of the plan to:

- To ensure that the City Centre core retail area is the priority location for comparison retailing in the City Centre.
- To facilitate the expansion of the retail offer on the designated sites.
- To restrict ground floor uses on prime retail frontages, other than where it can be demonstrated that a proposal will not adversely affect the retail function or will contribute positively to evening vitality.

Waterford Planning and Land use Transportation Study 2004-2020

2.4.15 The Waterford Planning and Land Use and Transportation Study (PLUTS) was commissioned by Waterford City Council in February 2001 in order to provide a vision and strategy for the development of Waterford City and Environs up to the year 2020.

2.4.16 The PLUTS sets out a strategy that aims to provide guidance as to the general scale and location of growth of Waterford so that City and Environs can be developed in a balanced, sustainable and transport friendly and attractive way to provide a high quality of life and opportunities for all its citizens over the next 20 years.

2.4.17 Key elements of the PLUTS are:

- Provision for a population increase of almost 30,000 people (per 57% population growth) in Waterford City and Environs by 2020.
- Investment needed for almost 12,800 new jobs or 46% by 2020.
- Requirements for approximately 11,500 new dwellings located both north and south of the River Suir.
- Significant retail expansion in the expanding City Centre.
- A Downstream River crossing to facilitate the extension of the Outer Ring Road northwards to the N25.
- A new City Centre bridge for pedestrians and cyclists which will link the redeveloped north quays with the existing City Centre.
- Provision of a rail passenger platform on the North Quays as part of a new Public Transport Interchange.
- Development of a high quality bus based public transport system in the City supported by Park and Ride facilities located north and south of the River.
- Expansion and improvement of the South East Regional Airport with an extended runway, more operators and improved transport linkages.

2.4.18 The PLUTS Study recognises that the riverside location of Waterford City has not be harnessed to its full potential and recommends that it should be developed to create a new focus for the proposed spatial layout and to bring the North Quays and the Northern suburbs fully into the social and economic ambit of the City.

2.4.19 The PLUTS study details that the City Centre area will expand northward across the River into the North Quays and will be linked to the existing core by the new City Centre Bridge. The design concept of the bridge will focus on ease of access and movement for pedestrians and cyclists as well as providing shelter from the elements. It is stated that the extended City Centre will be the physical, social, retail and commercial focus for the urban area and will accommodate a significant

proportion of the projected growth in jobs and services. It will also be the centre for leisure and entertainment with a specific emphasis on riverside amenities including the marina on the south quays. Improved public spaces and extended pedestrian areas will create an attractive ambience for both visitors and residents alike.

2.4.20 With regard to retail development, it is detailed that there will be a major expansion in retail floorspace in the City and Environs, particularly in comparison shopping floorspace. A significant proportion of this retail development will focus on the extended City Centre area including the redeveloped North Quays. Such expansion will be introduced in a phased and timely manner and will require a proactive and integrated approach on the part of the commercial community and civic authorities. A thriving commercial centre will be supported by urban design initiatives that will remove excess traffic from the City Centre.

Waterford City Centre Report 2009

2.4.21 The purpose of this report was to review the vitality, attractiveness and viability of Waterford City Centre as a place to shop, do business, work, live, spend leisure time and further develop and to set a direction for the City over the following number of years. In particular the report identified the centre's strengths and weaknesses and identifies further development opportunities as well as gauging what was required to improve its shopping attraction. An overall aim of the report was to provide a preliminary framework and guidance for future investment and outlines the mechanisms required to facilitate both enhanced direction and co-ordination of future investment for the City Centre.

2.4.22 The report detailed that notwithstanding its gateway designation, the City does not dominate its region like the other Gateway Cities and that in an increasingly competitive sub regional retail environment is vulnerable to increased retail competition from other large urban centres within the region. It also identified that retailing in the city had not expanded geographically beyond the existing traditional retail foci and that is attributable to the difficulty in identifying suitable large sites due to the fine historic urban grain in the City. It also detailed that while the existing core retail area of the City has many attractions and advantages in order to sustain and expand its competitive appeal into the future requires enhanced shopping attractions, including ideally one or a number of new larger department variety and/or multiple stores sited in central locations. It highlighted that such developments are likely to act as catalysts for further development.

2.4.23 The report highlighted the infrastructural improvements in the City and whilst it acknowledged that these key regional infrastructural projects expand the catchment area of the City, they also facilitate ease of movement of consumers and a haemorrhaging of comparison shoppers to the capital or other centres on a more frequent basis. In this regard the report stated *"the importance of improving the City Centre's attraction through upgrading the quality of our retail offer cannot be over emphasised."*

2.4.24 The report included a detailed City Centre retail analysis. It detailed that middle order comparison retailing completely dominates the comparison sector. This is in contrast to other Gateway Cities such as Cork and Limerick. The City lacks floor

area sizes in demand by multiple retail outlets. This in particular inhibits chain fashion retailers from displaying their full product range. The high streets that are represented tend to occupy smaller than normal floorplates. The study noted that in the absence of the proposed Newgate development (a major new City Centre proposal permitted but not constructed), the city centres current supply of retail floorspace is not managing to keep up with the increase in retailer need. In this regard, a priority for the City is to be in a position to offer larger floor plates to both existing and prospective retail tenants. The study noted however, that the City retail core has a healthy spread of independent fashion retail outlets which contributes to the diversity of comparison retail offer and ultimately the overall retail attraction of the centre.

2.4.25 In terms of accessibility, the report noted that the City has many positives, in that it is a rail transportation hub, has excellent motorway access and generous car parking provision, with approximately 2,600 car parking spaces in close proximity to the City Core. The report detailed that the South Quays parking provision is considered a significant advantage for the existing retail core, although there is scope to improve the overall environment there . In this regard, measures such as traffic calming along the quays were identified as a means to further enhance the attraction of the retail core to major retailers. The report included a number of strategic objectives including:

- To promote a sustainable City Centre through the provision of an integrated transportation system in the City. The creation and active promotion of sustainable and public transport links to the heart of the City Centre that are on time, easily accessible from suburban locations, clean, safe, environmentally responsible and affordable.
- Offer an attractive, legible, informative, safe and traffic controlled environment, with easy access to sufficient off street parking, in order to provide a hassle free experience for motorists when entering the City Centre for business or pleasure.
- To aid the enhancement of a pedestrian core within the City Centre.
- To review the existing inner city transport route with a view to facilitating the removal of non essential traffic from the central core and to provide a more efficient public transport.
- Review the Waterford Planning Land Use Transportation Strategy in 2010.
- To upgrade the main access roads to the City Centre.
- To support the provision of additional off street parking spaces adjacent to the orbital route.
- To provide dedicated bicycle parking within the City Centre.
- To examine the feasibility of the expansion of dedicated green routes within the City.
- To examine the feasibility of park and ride service from main access routes.
- To encourage the use of underground car parking where appropriate and possible.
- To introduce a real time variable messaging system for approached to the City Centre.
- Introduce a HGV/delivery strategy for the City Centre.
- Implement access for all ages – Barcelona Declaration.

Archaeology

2.4.26 The report identified the challenges of reconciling new development or redevelopment proposals in the City with archaeological issues.

2.4.27 The report outlined that the issue of conservation and archaeological resolution is often seen as a constraint to developers, yet new developments have proceeded or successfully gone through planning in the last number of years. Many of these schemes incorporated the archaeological heritage on site using them to add uniqueness and identity to the project.

City Priorities

2.4.28 The report identified a number of priorities for the City. It is detailed that the City requires maximising of its assets and focussing on creating a City Centre which has a strong economy, a high quality environment, improved connections to the waterfront, an attractive mix of uses and top quality shopping. Key priorities include:

Building a competitive City Centre economy: It is necessary to provide a range of shopping experience in a comfortable, user friendly environment, concentrating activity into the core retail area.

Create a quality regional shopping centre: It is essential to have at least one quality shopping centre with high order retail anchor or anchors that has a regional appeal.

Achieve a high quality environment: An easily traversable top class public realm is a pre-requisite in destination cities.

Develop city living: The objectives is to attract a cross section of the community to live close or in the City Centre by encouraging a range of residential unit types close to cultural infrastructure, leisure facilities and services.

Making a waterfront city: Any successful plan for the City Centre must acknowledge the fact that Waterford is focussed on the river, which can be used to connect important activities on a broader scale and to place the City Centre in its context. The south quays are the shop window to the City, and in relation to the City Centre Retail Core, the immediate priority is the area around the clock tower. The development of this zone should be used to signify the City Centre, to improve legibility and identify to visitors the commercial heart of the City.

Improving accessibility and movement: Ease of access to the City Centre is critical. It is an objective of the plan to investigate the potential to underground some of the south quays car parking areas and affording the north quays an opportunity to cater for a park and ride service and/or substantial car parking.

Creating a destination city: Waterford has the raw material and platform with which to synthesise a destination status over a period of time. Attractions include a vibrant City Centre and visitor attractions that are recognised nationally and internationally in the Viking Triangle and Waterford Crystal.

Affirming a regional role: Here the emphasis is on the ongoing need to affirm the

City's regional role. As a leader within its region for delivery of all services.

Expressing a distinctive identity: The development of a distinct identity is a tenet in drawing visitors keen on discovering unique places that have interesting layouts, design and history and that can creatively inform.

Management Framework: From a structured approach to managing the City Centre through to integration of cultural events, artistic displays and promoting and branding the City, the development of a management framework has been identified as a key driver in pulling together the disparate activities and groups required to give coherence and integration to the delivery of a strategy for the City Centre.

2.4.29 It is detailed that in order to achieve these strategic objectives leads to several priority themes including:

- Strengthening the City Centre retail core and developing it as a regional shopping attraction through intensification and diversification of retail space, promoting better visibility from the quays and continuing to improve the public realm and its overall shopper friendliness.

- Transformation of the N25, following the opening of the City Bypass, from its current perception as a physical and psychological barrier to an aesthetically enhanced traffic calmed boulevard. It in turn also facilitating the better union between the quays and eastern districts with the CCRC.

- Reinventing the south quays and its use to signify the centre and deliver visual information about the City.

- Delivering the Viking Triangle on a staged basis to provide the cultural/historical counterweight to the retail core. The Viking Triangle is seen as vital in promoting the national identity of the City.

- Develop complementary districts with strong and distinctive characters, and different functions to complement each other and reinforce the strength of the city core.

2.4.30 The report went on to identify a number of opportunity sites for redevelopment in the City. It detailed that the basic concept is to concentrate as much shopping offer as possible in to the retail core to give it a critical mass as a shopping regional centre. The more compact the core, the more attractions there are in a given area with consequent improvements in vibrancy. A tandem concept was to improve and add to the permeability of the core by adding new routes and proposing solutions to the quays around the clock tower that spread the footfall across a wider section to the Quays than just at the Clock.

Conclusions

2.4.31 The study concluded by identifying that the current balance between the City Centre of Waterford and retail decentralisation is somewhat uneasy and potentially volatile. It outlined that the level of decentralisation to key nodes in the suburbs

needed to be controlled to prevent adverse impacts on the City Centre. It is also highlighted that retail planning decisions taken outside the jurisdictional boundaries of Waterford City & County can equally have an adverse impact on the City Centre. Furthermore, the other major urban centres within the South East Region are becoming stronger with improvements in road infrastructure, critical mass, quality retailing environments and stronger tenant mixes. Their strengthening implies an increased capacity to draw from the primary trade area of Waterford City.

2.4.32 It detailed that the City required more higher quality variety stores as these enhance retail attraction and stimulate other retailers to co-locate. There is further capacity within the core retail area for larger floor plates, which in turn would consolidate the retail core. However, in order to bring such potential to fruition, site assembly should be resolved.

2.4.33 In order to enhance the attractiveness of the City Centre, accessibility for both public and private transport in conjunction with improved car parking provision and general traffic/transport management is required.

North Quays SDZ Planning Scheme 2018

2.4.34 The Planning Scheme sets out a broad vision for the development of the North Quays and sets out a development framework and urban design guidelines. The vision for the area is to create a sustainable, modern and innovative new City Centre quarter acting as a gateway to the City with the opportunity to connect the City Centre and Ferrybank, where a rich quality of life and unique sense of place can be experienced by residents and workers alike.

2.4.35 In terms of land use it is detailed that a range of complementary land uses will be considered and that in general active ground floor uses will be preferred with a mix of residential and commercial uses overhead. It is an objective of the plan to ensure an overall use mix across the area of 30% residential and 70% commercial/non residential based on land area. The planning scheme proposes a new bridge which will provide easy access to the city centre area., and also the relocation of the train station into the centre of the North Quays as part of a new integrated transport hub.

Waterford County Development Plan 2011-2017

2.4.36 The County Development Plan has a section (Section 6.10) devoted to Retail. This is based on the County settlement hierarchy which identifies:

- Primary & Secondary Service Centres
- District Service Centres
- Local Service Centres

2.4.37 The policies on retailing were based on the Waterford County Retail Strategy 2003 and which was reviewed in 2005 and makes projections for retail floor space requirements for both convenience and comparison goods shopping up to 2011. Of most relevance to this strategy is the designation in the Plan of the County Retail Hierarchy.

2.4.38 The purpose of the Retail Hierarchy is to indicate the role and importance of the

various urban centres of the County in order to enable the Council to protect each centre's overall vitality and viability whilst allowing each centre to perform its overall function within the County's settlement hierarchy. Identifying key centres which can accommodate major retail floorspace assists the market by bringing certainty and thus improving the County's competitiveness.

County Retail Hierarchy	
Level/Retail Function	**Centre**
Level 1: County Town Centre	Dungarvan
Level 2: Sub County Town Centre	Tramore
Tier 1 Level 3: Town Centre	Dunmore East Lismore Cappoquin
Tier 2 Level 3: Town Centre	Kilmacthomas Portlaw Tallow
Level 4	All Other Local Service Centres
Level 5	All Settlement Nodes

Table 6.1 County Retail Hierarchy

Dungarvan Town Council Plan 2012-2018

2.4.39 The Dungarvan Plan does not set out any retail policies specific to Dungarvan but refers to the overall County retail strategy and policies there-under and the importance of protecting the primacy of the town centre and the requirement to apply the sequential test.

Tramore Local Area Plan 2014-2020

2.4.40 The Tramore LAP sets out the following policies for retailing in the town:

- *Policy ETD 3 To promote and encourage the enhancement and expansion of the retail floorspace and Town Centre functions of Tramore and to develop its competitiveness through a plan led approach, consistent with the Retail Planning Guidelines 2012.*
- *Policy ETD 4 To address leakage of retail expenditure from the Town and its catchment through the appropriate zoning of land for retail/commercial development.*
- *Policy ETD 5 Promote the reuse and regeneration of derelict land and buildings in Tramore for retail development where appropriate.*
- *Policy ETD 6 To consolidate the traditional Town Centre and to strengthen linkages between the retail areas of the Town and between the promenade and the Town Centre.*

- *Policy ETD 7 To promote the sustainable use of vacant upper floors of Town Centre buildings for residential use.*
- *Policy ETD 8 Require a high standard of design for all new Town Centre development and the refurbishment of existing properties, taking account of the natural and built heritage of the Town to ensure developments enhance and respect the character and setting of Tramore.*
- *Policy ETD 9 The Council shall have regard to the County Retail Strategy (or any revision of same), the Retail Planning Guidelines and accompanying Retail Design Manual (2012) when guiding retail development in Tramore.*

Conclusions

2.4.41 A review of the City & County planning policy reveals that Waterford City, although the principal urban centre to the region, is underperforming in terms of its retail role and function. It is evident that the City is facing increased competition from other urban centres, both in the region and nationally, and is also experiencing pressure from retailers seeking larger and flexible retail formats in the suburban areas of the City and in the larger towns. There are clear objectives in both the City Plan and the Town Plans for Dungarvan & Tramore to promote the city/town centres and inhibit the spread of high order retailing out of the city/town centres.

2.4.42 The Waterford City Centre Report sets out a clear strategy and vision for the future development of the City. The strengths and weaknesses of the City are clearly identified and key opportunity sites for major retail expansion and development are assessed. It is clear that, whilst Waterford City has a very attractive and active city centre, there is room for improvement particularly in terms of retail representation, access and further improvements to the streetscapes and public realm. There is scope for the consolidation and enhancement of the city centre and for it to become a major retail destination in the region.

2.4.43 In relation to the other main urban centres in the County, both the County Development Plan and the Dungarvan town plan identify an important role for Dungarvan in meeting the retail needs for its extensive catchment area in west Waterford. In relation to Tramore, given its close proximity to Waterford city, its primary retail function is to serve the convenience needs of its resident and visitor population.

CHAPTER 3

Economic Context and Current Trends in Retailing

3.1 INTRODUCTION

3.1.1 In setting out the retail strategy for the City & County, it is important to have regard to the economic context at a national, regional and local level as current and projected economic growth can have a profound effect on factors such as expenditure change and thus on the nature and quantum of retail development that occurs.

3.1.2 This section of the report therefore outlines the national, regional and local economic context. This section also sets out recent trends in retailing in Ireland which will influence future development. Retail trends are intrinsically linked to the economic context.

3.1.3 Sources for this section include the Central Statistics Office (CSO) publications, most notably the 2016 Census of Population and the Retail Sales Index, ESRI publications such as Quarterly Economic Commentary, the National Planning Framework and the Regional Spatial & Economic Strategy for the Southern Region. The information relating to retail trends is sourced from a combination of in-house experience in retail development and a review of the relevant planning policy context, and through a review of national and international literature on trends in retailing.

3.2 NATIONAL CONTEXT

3.2.1 After a number of difficult years in the 2010's following the deep recession in 2008, the last number of years have seen a steady improvement in the Irish economy. According to the ESRI in their summer 2019 Quarterly Economic Commentary, while a number of international concerns continue to cast a shadow on the domestic economy, both taxation receipts and labour market indicators suggest that the Irish economy continues to perform strongly in 2019. Output is still forecast to grow by 4.0 per cent in 2019 before moderating somewhat at 3.2 per cent in 2020. Unemployment is set to fall to 4.5 per cent by the end of 2019 and to 4.1 per cent at the end of 2020.

3.2.2 While the performance of the economy continues to exceed that of most other European countries, it is subject to heightened levels of uncertainty. Consumer and producer sentiment indices have all reported significant declines in investor confidence about future prospects for the Irish economy. Inevitably, much of this uncertainty reflects the ongoing process of the UK withdrawal from the European Union.

3.2.3 Set out below in Table 3.1 is a summary of key economic indicators for Ireland over the last three years, taken from the ESRI's Quarterly Economic Commentary from summer 2019. This indicates that the country's GDP has increased each year since 2016 between 4% & 7%. For 2020 the ESRI are predicting this growth rate would moderate to 3.2%. Similarly, the Consumer Price Index has risen by 1.4%, while the unemployment rate has fallen from 8.4% to 4.5%, which would be considered full employment.

Table 3.1 Economic Performance Indicators for Ireland

SUMMARY TABLE

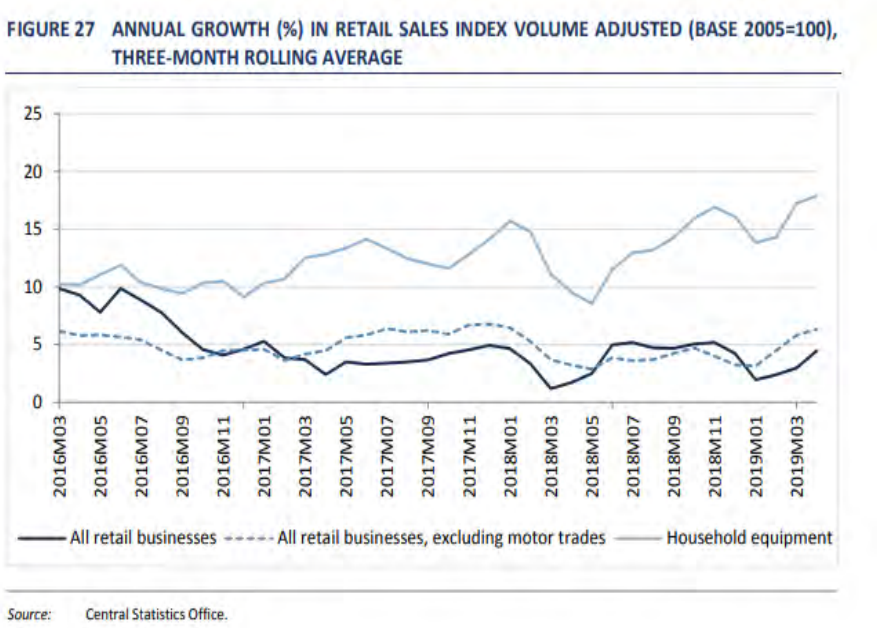
	2016	2017	2018	2019	2020
Output (Real Annual Growth %)					
Private Consumer Expenditure	4.0	1.6	3.0	2.5	2.3
Public Net Current Expenditure	3.5	3.9	6.4	7.0	5.3
Investment	51.7	-31.0	9.8	7.1	7.6
Exports	4.4	7.8	8.9	4.2	4.3
Imports	18.5	-9.4	7.0	6.0	5.9
Gross Domestic Product (GDP)	5.0	7.2	6.7	4.0	3.2
Gross National Product (GNP)	11.5	4.4	5.9	3.4	2.6
Prices (Annual Growth %)					
Consumer Price Index (CPI)	0.0	0.3	0.5	1.4	1.7
Growth in Average Hourly Earnings	2.5	1.5	4.2	4.4	4.6
Labour Market					
Employment Levels (ILO basis ('000))	2,133	2,195	2,250	2,324	2,375
Unemployment Levels (ILO basis ('000))	195	158	145	110	102
Unemployment Rate (as % of Labour Force)	8.4	6.7	5.7	4.5	4.1
Public Finance					
General Government Balance (€bn)	-1.8	-0.8	0.0	-0.7	-1.2
General Government Balance (% of GDP)	-0.7	-0.3	0.0	-0.2	-0.3
General Government Debt (% of GDP)	73.5	68.5	64.8	62.8	58.0
External Trade					
Balance of Payments Current Account (€bn)	-11.4	24.9	29.0	23.2	18.5
Current Account (% of GNP)	-5.1	10.7	11.5	8.8	6.7

Note: Detailed forecast tables are contained in an Appendix to this Commentary.

Source: ESRI Quarterly Economic Commentary Summer 2019

3.2.4 In terms of retail sales, the ESRI Quarterly Commentary includes a section on trends in retail sales, and this is well captured in their Figure 27 which has been reproduced here, as Figure 3.1. This chart presents a three-month rolling average of annual growth of total retail sales, sales excluding the motor trade, and sales for household equipment. Retail sales (both including and excluding motor sales) continue to perform strongly. The growth in household equipment sales remains well above the average of all retail sales, with the three-month rolling rate up 17.9 per cent in April 2019. As previously noted, this is likely driven by the continued increase in housing market activity. Given the uncertainties facing consumers in the Irish economy, in particular with Brexit, it may have been expected that retail sales growth would have moderated through late 2018 and into 2019. While this does appear to have happened up to February 2019, the March and April updates suggest a pick-up in retail sales and a further acceleration in the growth rate. This may be driven by improvements in the labour market outweighing any concerns due to uncertainty or some pent-up demand being released with greater certainty emerging on Brexit.

Figure 3.1: Annual Growth in Retail Sales Index



Source: ESRI Quarterly Economic Commentary Summer 2019

3.2.5 While consumer sentiment grew much more strongly in Ireland than elsewhere in the period 2014-2017, the ESRI noted that mid- to late-2018 consumer sentiment has been falling. This suggests that Irish consumers became more fearful as the Brexit deadline drew to a close without a deal. A similar pattern is also evident in the UK. The most recent data point for May 2019 provides some respite with a pickup in sentiment occurring in Ireland, the UK and EU. This may have been driven by the postponement of the Brexit deadline to October 2019 giving time for negotiations to continue.

3.2.6 What is interesting is that as the country gets richer, the proportion of incomes spent on goods – particularly basics such as food – continues to fall. For example, in Ireland we spent nearly €1 in every €3 of disposable income on food in 1980, today it is dropped to around €1 in every €7. And within today's population, people on better incomes tend to spend a higher proportion on their incomes on services, while lower income groups spend more on goods.

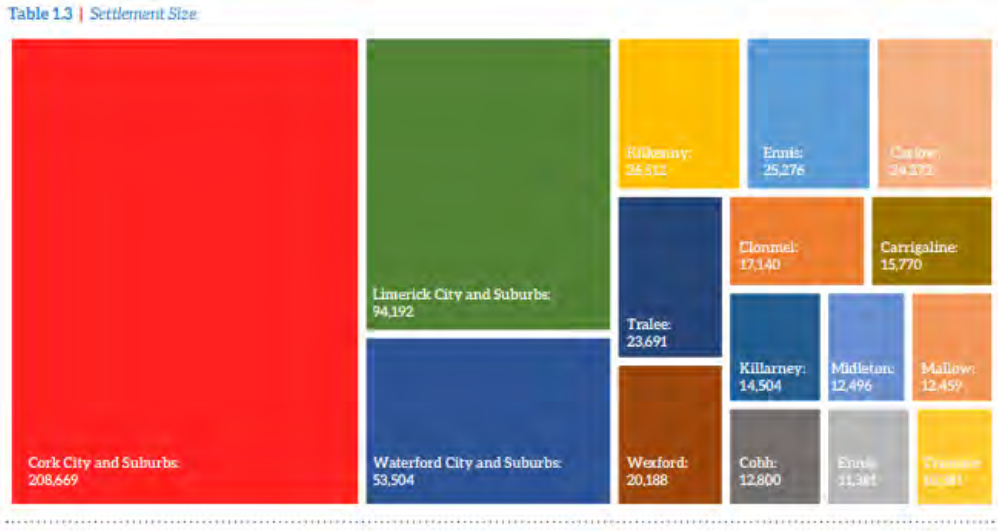
3.3 REGIONAL CONTEXT

3.3.1 Waterford is located in the South-East region, which is part of the wider NUTS II Southern Region. With one-third of the State's population (1.58m), the Southern Region is the second most populated Regional Assembly area and all local authority areas have experienced growth since 2006 (albeit at differing levels). The highest rates of population increase between 2006 and 2016 are in commuter areas near to Cork and Limerick Cities and in areas close to other larger settlements. Wexford town and areas close to Gorey witnessed large increases linked to population growth associated with the Dublin Metropolitan and commuter

areas. Population decline was seen in 402 Electoral Districts (27%), mostly in rural and peripheral areas, with largest decreases in areas of Clare, Kerry, Limerick and Cork. Population decline is also evident in some areas within the cities of Cork, Limerick and Waterford.

3.3.2 The Southern Region boasts a strong network of urban centres with cities (Cork, Limerick and Waterford), in each of the three Strategic Planning Areas, and thirteen larger settlements with populations more than 10 thousand people. In 2016, the three cities and suburbs accounted for 22% of the Region's total population. Growth in the cities and suburbs outpaced overall Regional and State level growth between 2011-2016 (2.9% and 3.8% respectively), showing encouraging signs that our cities are strengthening their population base. The 10,000+ population towns function as strong urban entities, fulfilling critical economic and social roles for their respective hinterlands.

Figure 3.2 Settlement Structure of Southern Region



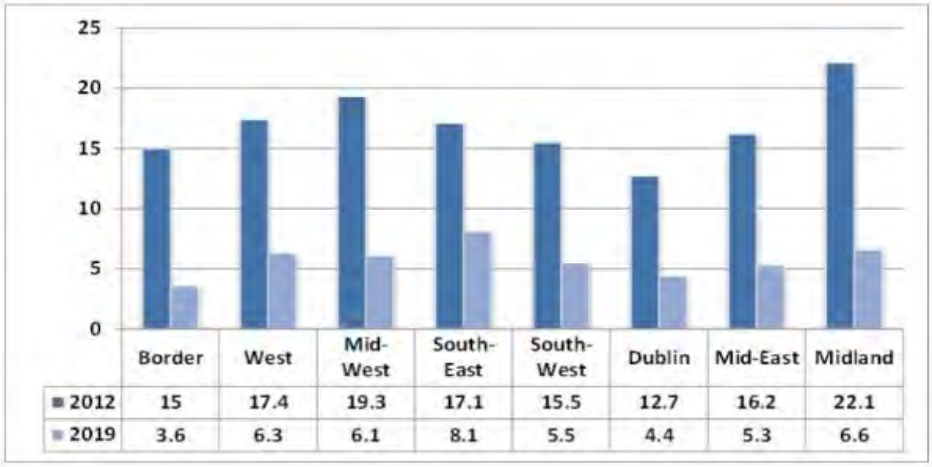
Source: Southern Region RSES 2019

3.3.3 The Regional Spatial & Economic Strategy for the Southern Region estimates that the population of the South-East in 2019 was c. 509,500 (10.7% of the national population). Within this, the population of Waterford City & County is circa 22.8% of the south-east region's population.

3.3.4 The RSES describe that the regional economy of the South-East as being based primarily on agriculture, manufacturing and services, tourism, fishing and aquaculture. The agriculture and food sectors account for a significant proportion of output and employment, with the region having a higher than average reliance on this sector.

3.3.5 It is also of note that the South-East has the highest rate of unemployment in the country at 8.1% for the period end Quarter 2 2019, well above the national average of 4.8%. This is illustrated in the two Figures below which show the unemployment rates for each NUTS III region for 2012 and Q2 2019 and also the rate of employment growth over this period, which graphically illustrates the rapid employment growth in the Dublin region relative to the rest of the country.

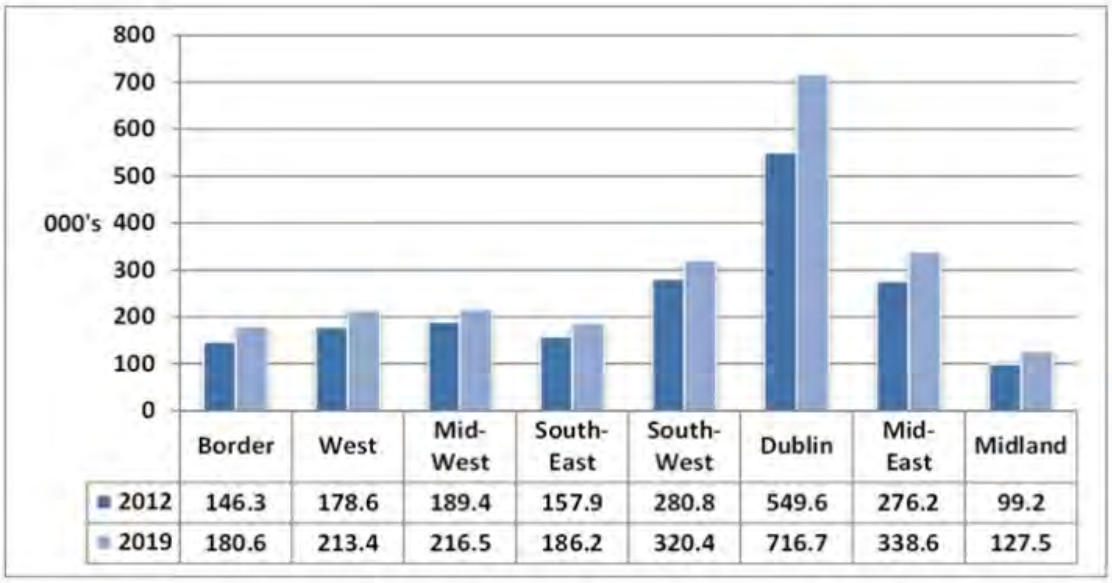
Figure 3.3 Unemployment rates for persons aged 15-74 tears by NUTS III Region 2012 & 2019 Q2



	Border	West	Mid-West	South-East	South-West	Dublin	Mid-East	Midland
2012	15	17.4	19.3	17.1	15.5	12.7	16.2	22.1
2019	3.6	6.3	6.1	8.1	5.5	4.4	5.3	6.6

Source: CSO (2019a)

Figure 3.4 Persons aged 15 year and over in employment 2012 & 2019 Q2



	Border	West	Mid-West	South-East	South-West	Dublin	Mid-East	Midland
2012	146.3	178.6	189.4	157.9	280.8	549.6	276.2	99.2
2019	180.6	213.4	216.5	186.2	320.4	716.7	338.6	127.5

Source: CSO (2019a)

3.4 COUNTY WATERFORD

3.4.1 County Waterford is a coastal county located in the south-east of Ireland, bordering the counties of Cork, Kilkenny, Tipperary & Wexford. The County is predominantly rural in character. The Waterford City area (former city council administrative area) extends to an area of 4,157 hectares, of which 288 hectares is covered by water – the Suir and its tributaries.

3.4.2 County Waterford recorded a population of 116,176 in 2016, representing a growth of 2.1% from 2011. This growth is below the national average of 3.8%, although it

is notable that the percentage increase for Waterford City was higher at 3.2%.

3.4.3 Waterford City is by far the largest settlement in the County of Waterford. Outside the City, the largest towns are Dungarvan & Tramore both of which have populations of just over 10,000. Below this tier there are just three towns with populations over 1,000 namely Dunmore East and Portlaw in the east of the county and Lismore in the west, all within a population range of 1.300 -1,800 in Census 2016. This illustrates how relative rural the county is, particularly west Waterford.

3.4.4 Set out below are a series of tables taken from the 2016 Census of Population which summarise the position of Waterford City & County relative to the State across a range of socio-economic variables.

3.4.5 Table 3.2 indicates that Waterford has a higher than national average proportion of persons in the 50-60, 60-79 and 80+ cohorts, and lower in the 20-30, 30-40, & 40-50 cohorts which has implications for the active labour force.

Table 3.2: Census of Population 2016 Statistics for Waterford County & State

		Waterford County		**State**	
		Households/ Persons	**Percentage**	**Households/ Persons**	**Percentage**
Personal Computer	Yes	29066	66.9	1160603	68.4
	No	12880	29.6	478487	28.2
	Not Stated	1509	3.5	58575	3.4
Total		43455		1697665	
Internet Access	Broadband	29801	68.6	1200067	70.7
	Other	3616	8.3	131676	7.7
	No	8595	19.8	312982	18.4
	Not stated	1443	3.3	52940	3.1
Total		43455		1697665	
		Waterford No.	**County %**	**State No.**	**%**
Persons at work by industry	Agriculture, forestry and fishing	2,589	5.7	89,116	4.4
	Building and construction	2,052	4.5	101,849	5.1
	Manufacturing industries	7,418	16.3	229,548	11.4
	Commerce and trade	9,513	20.9	480,117	23.9
	Transport and comm.	2,383	5.2	171,194	8.5
	Public administration	1,979	4.3	106,797	5.3
	Professional services	11,535	25.3	471,656	23.5

	Other	8,126	17.8	356,364	17.8
Total		45,595		2,006,641	
Persons by socio economic group	A Employers and managers	15,234	13.3	722585	15.5
	B Higher professional	7,196	6.3	330313	7.1
	C Lower professional	12,256	10.7	548805	11.7
	D Non Manual	19,837	17.3	841337	18.0
	Manual Skilled	11,284	9.9	436768	9.3
	F Semi skilled	12,246	10.7	403657	8.6
	G Unskilled	4,735	4.1	167976	3.6
	H Own account workers	5,524	4.8	243997	5.2
	I Farmers	5,824	5.1	227052	4.9
	J Agricultural workers	865	0.8	25141	0.5
	Z All other gainfully occupied and unknown	19,401	17.0	729017	15.6
Total		114,402		4676648	
Population aged 5+ journey time to work, school or college	Under 15 mins	28277	40.9	956370	32.3
	1/4 hour - under 1/2 hour	22568	32.6	853885	28.8
	1/2 hour - under 3/4 hour	7607	11.0	511843	17.3
	3/4 hour - under 1 hour	2296	3.3	174254	5.9
	1 hour - under 1 1/2 hours	2280	3.3	179233	6.0
	1 1/2 hours and over	1116	1.6	67066	2.3
	Not stated	5030	7.3	219899	7.4
Total		69174		2962550	
		Waterford No.	**County %**	**State No.**	**%**
Population aged 5+ means of travel to work, school or college	On foot	9508	13.2	426221	13.9
	Bicycle	979	1.4	82123	2.7
	Bus. Minibus or coach	4477	6.2	313097	10.2
	Train, DART or LUAS	123	0.2	82627	2.7
	Motorcycle or scooter	162	0.2	8565	0.3
	Car driver	30918	43.0	1202441	39.3
	Car passenger	16821	23.4	570254	18.6

	Van	2798	3.9	128310	4.2
	Other (incl. lorry)	285	0.4	11917	0.4
	Work mainly at or form home	2743	3.8	96057	3.1
	Not stated	3103	4.3	136995	4.5
	Total	71917		3058607	
Population aged 15+ by age education ceased	Under 15 years	4234	5.5	184266	5.9
	15	4015	5.3	124642	4.0
	16	6582	8.6	226150	7.3
	17	5913	7.7	217663	7.0
	18	8977	11.8	358642	11.6
	19	2881	3.8	122278	3.9
	20	2674	3.5	117591	3.8
	21 and over	16442	21.5	757567	24.5
	Not stated	24596	32.2	988253	31.9
	Total	76314		3097052	
Population aged 15+ by highest level of education completed	No Formal Education	1279	1.7	52214	1.7
	Primary Education	8615	11.3	334284	10.8
	Lower Secondary	12680	16.6	449766	14.5
	Upper Secondary	14510	19.0	573643	18.5
	Technical or Vocational qualification	7073	9.3	271532	8.8
		Waterford No.	**County %**	**State No.**	**%**
	Advanced Certificate/Completed Apprenticeship	4925	6.5	182318	5.9
	Higher Certificate	3758	4.9	153351	5.0
	Ordinary Bachelor Degree or National Diploma	5270	6.9	237117	7.7
	Honours Bachelor Degree, Professional qualification or both	7385	9.7	331293	10.7
	Postgraduate Diploma or Degree	5291	6.9	284107	9.2

	Doctorate(Ph.D) or higher	567	0.7	28759	0.9
	Not stated	4961	6.5	198668	6.4
Total		76314		3097052	

Source: CSO Census 2016

3.4.6 In terms of educational attainment, Waterford City compares favourably to State percentages when assessing primary and secondary education. However, percentages of third level education are below State averages, and this is reflected in the figures for County Waterford.

3.4.7 In terms of social class, the above Table indicates that Waterford City & County has only 7.6% of professional employees, against a State average of 8.1%, and also has a well below average percentage of managerial and technical employees. The figures shown above demonstrates that Waterford has a higher than average dependency on manufacturing, agriculture, forestry and fishing for employment.

3.4.8 In terms of factors which can have a direct impact on people's retail behaviours it is worth noting that Waterford has lower than State average ownership of personal computers and access to internet, which may dampen expenditure on on-line shopping in the county. Waterford also has a relatively higher number of 1 and 2 person households than the state average.

3.5 RETAIL TRENDS

3.5.1 It is important to be able to recognise and respond to the key trends in retailing in formulating a retail strategy.

General Trends in Retailing

Leisure Use Integration and Extended Opening Hours

3.5.2 Shopping has become interlinked with social and leisure activities, and in particular food and beverages uses. This is evident in the extension in the range of facilities now on offer in shopping centres. This integration of leisure, food & beverage and retail use is particularly evident in Dundrum Town Centre in Dublin where the retail sector forms part of a wider mix of leisure facilities including a cinema, theatre and a variety of restaurants which front onto the central plaza. The number of restaurants is currently being expanded.

3.5.3 The permitted Michael St/New Street development in Waterford City includes a number of leisure uses and shows the importance of providing a mix of retail, leisure and other complementary facilities in ensuring the success of a centre.

3.5.4 This mix of uses has the potential to add to the life and vitality of the town/city centre and increase the overall attractiveness of the centre. The inclusion of additional leisure activities to shopping centres does have the benefit of increasing activity in shopping areas, bringing vitality and vibrancy. It can also increase activity to the centre after normal shopping times.

3.5.5 The integration of leisure and retailing is constantly evolving and developing. A new concept that is emerging is what can be termed 'experience retail'. This can be described as facilities which seek to provide a much more sophisticated offer to consumers than traditional retail centres, by providing innovative forms of delivering the retail experience together with leisure, entertainment, eating and drinking and cultural experiences. At the heart of experience retail is the need to differentiate the offer by providing a unique mix of retail, culture, sport, leisure, events, activities and services that are appropriate for the market and cannot be replicated elsewhere.

Internet Shopping

3.5.6 According to the 2018 PWC report (see Section 3.6 below) 38% of 25-34 year olds in Ireland now shop weekly on-line, and this figure is continue to grow and expand into the older age cohorts.

3.5.7 Home shopping traditionally took the form of catalogue / mail order shopping but has now diversified into internet shopping in recent years. This form of retailing is particularly suited to non bulky comparison goods, such as books, footwear and clothing. It is envisaged that the proportion of retailing carried out online is likely to increase in the coming years.

3.5.8 For the first time the 2019 Retail Sales Index published by the CSO in January 2020 contains specific data in relation to on-line sales by Irish stores. The RSI found that for 2019 on-line sales by retailers based in Ireland was estimated to account for 3.3% of total retail sales. This does not include online purchases from abroad. For electrical goods the online share was 13% and for footwear & clothing the share was 7.3%

3.5.9 Online convenience retailing is still in its infancy here in Ireland, but has been increasing slowly in popularity in recent years with food retailers such as Tesco Ardkeen and Supervalu providing a home delivery facility to consumers.

Convenience Retailing

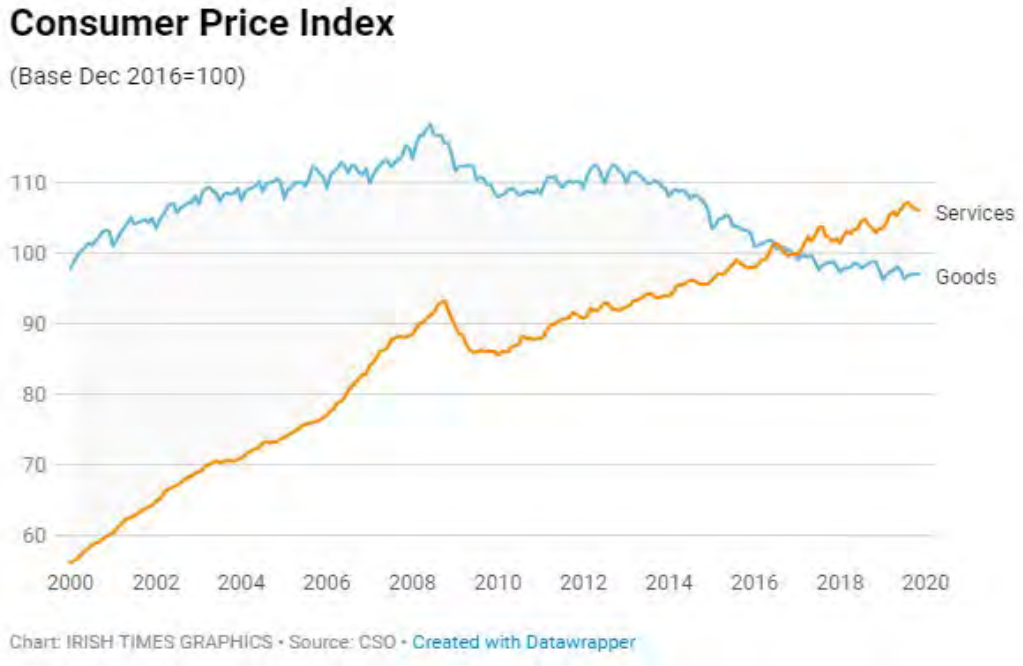
Declining Costs of Retail Sales

3.5.10 A noticeable recent trend has been the reversal of the long-term trend of inflation in the price of retail goods as based on the Consumer Price Index. Since 2008, inflation or change in real prices of goods has fallen by in excess of 10% overall. This is particularly noticeable in categories such as clothing and footwear where the fall is in excess of 15%. This compares with continued inflation in respect of services.

3.5.11 The fall in the retail price of goods has risen from increased competition, both within the shop-based retail sector and from online retailing as well as reduced costs globally of products. This means that whilst the volume of goods sold has continued to increase, the actual turnover of retail nationally has remained largely static over the last 10 years or so. This is reflected and further discussed below in

the Quantitative Assessment, and is shown graphically on Figure 3.5 below.

Figure 3.5 Changes in Consumer Price Index 2000-2020



Convenience Retailing

3.5.12 There is a marked change in trends in convenience retailing in the past 10 years compared with the previous decade. In particular, there has been a very significant reduction of development of new larger convenience stores throughout the country.

3.5.13 Up to 2008 there had been a trend towards larger size supermarkets and hypermarkets. In excess of 2000 square metre net sales have been developed in the past 10 years across the country.

3.5.14 New development being of much reduced scale and pace has focused on firstly, continuing expansion of discount foodstores and secondly, development of smaller stores within urban neighbourhoods, serving a more localised catchment, together with continued expansion of convenience stores of a small scale attached to petrol filling stations.

3.5.15 The latter is particularly prevalent in smaller towns.

3.5.16 The pace of discount food stores is also easing off as they are approaching maturity in terms of representation nationally, although they are continuing to expand. The share of retail sales accounted for by the two leading discount food stores, Aldi and Lidl, has increased very significantly and together they now account for approximately 25% of convenience expenditure, similar to that of the leading national multiples such as Tesco, Dunnes Stores and Supervalu.

3.5.17 Expansion of discount food stores have been replicated with the comparison sector with limited growth in new retail stores being led by multiple retailers selling products at high prices, both in bulky goods and clothing and footwear sector.

Comparison Retailing

3.5.18 Since 2008 there has been a very significant reduction of development of new comparison retail facilities nationally. Very few new shopping centres have been developed, other than at neighbourhood level and activities focused mostly on re-structuring and refurbishing and upgrading existing centres.

3.5.19 Between 2008 and 2012, this is primarily due to the economic recession and since 2012 the impact of online retailing is increasingly felt, particularly in the comparison sector, curtailing expansion and growth. Nonetheless there are some significant opportunities in large urban areas which are now being brought forward to a development of new or expanded shopping centres in key locations.

3.5.20 In respect of retail warehousing, there has been extremely limited development throughout the country, resulting from an over provision of retail warehousing in the previous decade in many locations throughout the country. Provision is limited to a small number of locations in the largest urban areas.

3.6 NATIONAL & INTERNATIONAL LITERATURE REVIEW ON RETAILING

3.6.1 The retail sector is an area in which a lot of on-going research is conducted at both national and international level. A number of the large Irish accountancy firms regularly contribute to international publications on trends within the retail sector. All of these publications confirm that the retail sector in recent years has been going through a transformative period, largely driven by technological change. While the sector has seen rapid penetration of on-line shopping, the traditional 'brick & mortar' stores are proving more resilient than expected, but must be adaptive to change.

3.6.2 Set out below are the findings of a number of major surveys and reports on the retail sector published over the last 2-3 years, which provide a good overview and understanding of the changes which have been occurring in the retail sector and which are likely to continue in the years ahead.

KPMG Retail Trends 2019

3.6.3 The report notes that 2019 is poised to be a transformative year for retailing, as technology continues to change the rules of engagement, and consumers becoming more demanding than ever.

3.6.4 The report notes how consumers are becoming more price savvy – for example 81% of shoppers do on-line research before committing to purchase, and 89% begin their buying process with a search engine.

3.6.5 The report also emphasis the growing importance of Experiential Retailing or 'Retailtainment' as it starting to be known. As the desire for experiences rises – millennials said 52% of holiday spending would go to experience related purchases

(compared to 39% for older consumers), the trend away from bricks and mortar shops may be reversed in the future.

3.6.6 For example 78% of millennials would choose to spend money on an experience or an event, and since 1987 the share of consumer spending on live experiences relative to total US consumer spending increased by 70%.

PWC Retail & Consumer Report 2018

3.6.7 The report identifies the following key trends for the retail sector:

- Shift to online is real and is happening at pace
- Mobile is a game changer
- Social media is emerging as the great influencer
- Security is key to building trust
- The role of the store is critical and cannot be ignored.

3.6.8 The report notes that economically all the indicators are positive, and that Irish consumers are positive about the spending outlook. However the new shopping habits developed during the economic recession have not been forgotten.

3.6.9 Some of the key findings from the PWC survey were:

- Mobile has become the standard, and is set to become the dominant platform for online shopping in coming years. Already 33% of Irish consumers more likely to shop with a retailer that offers mobile payment.
- The store continues to evolve. Physical stores remain as the most important shopping channel and will continue to hold this position of strength. The PWC survey shows that consumers like to shop in stores, and will keep doing so as long as stores provide the right experience, combination of value, convenience, personal service and integrated physical and online services.

3.6.10 The following are some key survey results highlighted in the PWC survey:

- 38% of 25-34 year olds shop online weekly
- 18% say they shop less often at other retail stores as a result of Amazon
- Less than 50% say they are satisfied with their in-store shopping experience
- 94% of 18-24 year olds use social media to inspire their purchases.
- 77% of consumers are willing to pay for same day or next day delivery.
- 60% of Irish consumers consider buying Irish products as important.
- 25% of Irish consumers are shopping online at least weekly, compared to 50% in the UK.
- 29% of consumers make purchases by mobile phone (projected to grow to 50% in next 5 years)
- Only 3% of grocery purchases made online in Ireland, compared to 7.5% in UK

3.6.11 While certain categories (Clothes/footwear books & music) have experienced an increasing shift to online, other categories have not – e.g. DIY/bulky goods with 60% of consumers stating that they never purchased such goods online.

3.6.12 While the store remains the most important shopping channel for consumers with

73% of Irish consumers shopping in store monthly or more frequently, less than half (36%) are satisfied with most elements of the in-store experience.

Retail Ireland Monitor 2018 & 2019

3.6.13 Retail Ireland publishes quarterly reports on the state of the retail sector in Ireland, and contains a useful set of metrics measuring performance across the various categories of retail. For example 2018 saw an increase supermarkets sales by 4.2% and 3.2% for household goods. Conversely departments stores saw a decline in sales of 7.9%, while sales in fashion and footwear remained static. However figures from Q1 2019 have shown an 6% increase sales in fashion/footwear, which is encouraging.

3.6.14 The quarterly reports also contain an editorial piece by the Retail Ireland Director. The following is a quote from the February 2019 Monitor editorial.

"Don't believe the hype, Irish retail remains solid. Never has there been such a focus on the trials and tribulations of the retail sector as we have seen over the last number of months. Barely a day goes by without one media outlet or another decrying the imminent 'death of retail'. We consistently hear about the emerging doom precipitated by a changing consumer and the emergence of online as the grim reaper on the Irish retail landscape. This scrutiny intensified during 2018 as our nearest neighbour hit a speed wobble, driven by an increasingly unsteady economy, a number of high-profile retail failures and a market correction, which was probably overdue. Unfortunately, the view of Irish retail has been largely coloured by the darkening mood in the UK retail sector. This is only natural given the proliferation of shared high street brands and our similar consumer culture and behaviours. It's not the full story, however. The lazy narrative is what is happening in the UK must reflect the reality of Irish retail. While this is partially correct in terms of the macro global retail trends, when you delve a little deeper a different picture emerges. Irish retail has performed admirably over recent years. Buoyed by strong economic growth and a consumer who while cautious, was primed to spend a little more, the sector has grown in value terms by between two and four per cent per annum for the last five years. Not spectacular, but steady, and when compared with our counterparts in the UK, a strong performance. This is not to say that the sector doesn't face many challenges. Towards the back end of 2018 we have seen a softening of Irish consumer sentiment and a growing sense amongst the Irish public that geopolitical events will have an impact upon their personal finances in the year ahead. We are facing a dramatic technology led shift in how retail operates. Our customer has changed and changed forever. Shopping patterns have altered, and number of store visits is falling. They are more demanding than ever and need a little more coaxing into that discretionary purchase than in years past. All of this increases the challenge for Irish retailers."

3.6.15 The May Editorial made particular reference to the growing importance of experiential shopping, with the following statement:

"Consumer behaviour continues to shift and evolve, but one pattern which has emerged in recent years is the extent to which events are now driving consumer spending patterns. It seems consumers want to be convinced to part with their hard-earned cash and view the decision to spend mainly through the prism of

experience. Does this purchase tie back to an event or occasion of interest? A sense of allowing themselves to spend that little bit more because it is a certain time of year, a special occasion is now crucial in the consumer decision making tree. It almost appears an unspoken permission to spend is now required. Creating those events or tying up with existing events will now be a crucial part of any retailers marketing plan over the coming years."

3.6.16 These quarterly reports have also captured the growth in online shopping in Ireland. For the 11 months to end of November 2018 e-commerce transactions topped €15.2 billion. However of this Retail Ireland estimate that circa 70% of online purchases leave the State. Now 50% of Irish consumers shop online compared to 19% a decade ago, with convenience being the main driver of this growth. Hence the move to smart phones for shopping online.

3.6.17 The final section examines two important reports from 2018 which were focused on e-commerce in Ireland.

E-Shopworld 2018 Report

3.6.18 This report estimates that there are now 2.89 million e-commerce users in Ireland, and by 2022 this is estimated to grow by a further 460,000 to top 3,25 million or 70% of Ireland's population. By 2022 project that the average spend per capita online will be €1,539 p.a.

3.6.19 While use of mobile phones for e-commerce is growing, in 2018 the majority (83%) of online purchases were made through a desktop computer.

3.6.20 In 2018 the level of internet penetration in Ireland stood at 85.3%, while 3.51 million people in Ireland were active on social media.

3.6.21 Almost €21 billion worth of goods were bought online from UK based companies.

Wolfgang Digital Periodical – 2018 Irish Online Economy Report

3.6.22 Britain's digital economy contributes 12.4% to country's GDP – in Ireland the equivalent figure is 6%, so considerable potential for growth.

3.6.23 In 2017 traffic on e-commerce sites in Ireland grew by 14% year on year, while number of transactions increased by 32%, suggesting that sites are converting more browsing into sales, so that revenue was up 19%.

3.6.24 In 2017 the average spend per transaction in Ireland was €147.

3.6.25 In terms of method of online shopping, as measured by revenue sales, while mobile is gaining ground (grew 20% 2016-17), the desktop is still the preferred medium. The relative figures in 2017 were:

- Desktop 58%
- Mobile 30%
- Tablet 12%

Concluding Remarks

3.6.26 What the literature review has highlighted is that while Ireland is following international trends, particularly in the adoption and growth of online shopping, it is still some years behind more mature digital economies such as the UK. Furthermore, the recent struggles experienced by bricks and mortar stores in the UK, particularly by the large department stores, are not as pronounced here in Ireland.

3.6.27 Stores continue to remain the most important shopping channel. However, retailers need to offer a compelling consumer offer in order to compete with the convenience of online shopping. The overall experience is becoming the critical factor, and this is where city and town centres have potential advantages over out of town shopping malls. Experiential retailing and sustainability are likely to be the key considerations for the younger generations of shoppers.

3.7 CONCLUSION

3.7.2 It is evident that Waterford City & County has experienced steady population growth over the last decade, and this is projected to continue, and in the case of Waterford city to significantly increase under the proposals contained in the National Planning Framework.

3.7.3 Under the Regional Spatial & Economic Strategy population projections, the population target for the Waterford City & Suburbs is 74,240, with the population projection for the Waterford Metropolitan area being 81,800 by 2031. This will be a significant increase representing a projected growth for the City area of 38.8%. The equivalent growth to 2031 for Waterford County, excluding the city is 19.6%.

3.7.4 This growth in population will have significant implications for Waterford City & County. It will be necessary to plan for this projected increase and to ensure that there are sufficient services to meet the needs of the growing population. This will consequently have an impact on the provision of retail services. A key factor in this will be consolidating services in Waterford City and the towns of Dungarvan & Tramore whilst also providing for appropriate rural development, diversification and special niche markets in smaller towns and rural areas, such as retailing linked to agri-food industry and the tourism sector. This is in accordance with the principles of sustainable development which seeks to direct services and facilities to key urban centres, whilst still supporting the rural areas.

3.7.5 This chapter has also shown an above average dependency on manufacturing employment. There is a need to provide a diversification of employment sectors to seek to provide a balance in this regard and avoid an over reliance on these sectors. More pertinently, there is a need for employment opportunities in general, with the south-east region having the highest rate of unemployment in the country as of June 2019 when the South East region recorded an unemployment rate of 8.1% against a State average of 4.8%. There is a need to address this deficit to ensure that there is not a significant out migration of the population to other competing counties. The retail sector, if developed, has the potential to create significant employment.

3.7.6 In terms of retail trends, the retail market has continued to diversify to meet new and evolving demands, demonstrated by, for example, the linking of retail and leisure facilities, larger floor plates and extended opening hours, and the ever increasing importance on on-line shopping. Such evolution and diversification will need to continue into the future to combat increased competition from international retailers in both the comparison and convenience markets, and to ensure that the city & town centres in Waterford can compete successfully with other urban centres in the region.

3.7.7 The recent trends in retailing should be taken into account in the formulation of a strategy to achieve this. Opportunities for larger scale convenience and comparison stores in appropriate locations and comparison outlets linked with social and leisure activities should be encouraged in order to attract occupiers. At the same time, care will need to be taken to ensure that the city and town centres retains dominance in terms of retailing, particularly against the potential threat of retail parks competing directly with city/town centre in terms of products and goods on sale.

CHAPTER 4

Survey Approach and Analysis

4.1 INTRODUCTION

4.1.1 In order to establish the necessary data for the retail study, it was necessary to undertake a number of qualitative and quantitative surveys. These included:

- Review and Updated Floor Space Survey
- Household Survey
- Shoppers Survey

4.1.2 A brief description of each of the surveys carried out and the methodology utilised is described below.

4.2 FLOOR SPACE SURVEY

4.2.1 A detailed floorspace survey for Waterford City & County was included in the 2009 Waterford City Report undertaken by Waterford City Council. This report included detailed floorspace information for the City area.

4.2.2 In connection with the preparation of a new City & County Retail Strategy, Waterford Council issued on the 30th September a set of tables updating the existing and permitted retail floorspace figures for Waterford City, Dungarvan and Tramore for 2019

4.2.3 The main findings of the survey work are summarised in Table 4.1 below, and in the following text.

Table 4.1 Retail Floorspace in Waterford City
Source: Waterford City & County Council

Waterford City (including amalgamation of Waterford City and County area) Name of Study	Retail Vacancy	Convenience	Comparison	Bulky Vacancy	Bulky Comparison	
Retail Strategy 2012 (existing)		31,675	39,252		41,444	112,371
WCCC Review 2019 (existing)	11,728	34,624	38,480	1,749	55,993	147,956
Pipeline Projects						
North Quay SDZ Planning Scheme			30,000[1]			
Michael Street Permitted		2,885	6,731			

Notes to Table:

Retail Vacancy: Section 5.7 of the Waterford City Retail Strategy (2012) states that the rate of vacancy was estimated to be approximately 8.5% based on the 2009 City Centre Report. However, no figure for the quantum of sq. m. of vacant floor space was given in the report. The 2019 survey identified a total of 18,878 sq. m. (14.6%) of vacant floor space. However, if Bulky Comparison is removed from this equation the figure increase to 16%.

Convenience: The increase of 2,949 sq. m. convenience floor space in the 2019 survey is due to the opening of a new Adli store in Ardkeen (1,450 sq. m.) and the opening of various new ethnic food shops across Waterford city.

Comparison: The decrease of 772 sq. m Comparison floor space in the 2019 survey is partly due to the fact that shops selling electrical and household goods within the city centre in the 2019 survey were re-classed as 'bulky comparison'.

Bulky Comparison: The increase of 14,549 sq. m Bulky Comparison floorspace as identified in the 2019 WCCC survey can be explained by the former 'Butlerstown Retail Park' now 'Waterford Retail Park' being reclassified from Waterford County Council's functional area to Waterford City as part of merger of the two local authorities on 1st June 2014.

North Quays SDZ: 30,000 sq.m. of retail floorspace will be provided within the Waterford North Quays SDZ Planning Scheme area under permitted application

1 **North Quays SDZ**: 30,000 sq.m. of retail floorspace will be provided within the Waterford North Quays SDZ Planning Scheme area under permitted application Reg. Ref.: 19/928.

Reg. Ref.: 19/928.

Michael Street: This total figure of 9,616 sq. m. of retail floorspace is what was permitted under the extant planning permission. However as no construction has occurred to date, this figure may be subject of further change.

Table 4.2 Retail Floorspace in Dungarvan

Dungarvan Town Name of Study	Retail Vacancy	Convenience	Comparison	Bulky Vacancy	Bulky Comparison	Total
DTZ Pieda Consulting 2005	3,208	6,417	10,370		5,641	25,636
WCC Review 2019	2,607	10,092	10,686	3,922	17,634	44,941
Difference	-601	3,675[7]	316	3,922	11,993[8]	19,305

Source: Waterford City & County Council

Notes to Table:

Convenience: The additional 3,675 sq. m. is due to the fact that since the 2005 DTZ survey Adli and Lidl have been constructed together with a number of small food shops and ethnic food shops across the town.

Bulky Comparison: The additional 11,993 sq. m. is due to the development of a number of retail warehouses in the Shandon and Dungarvan Business Parks and adjoining the Kilrush roundabout.

Table 4.3: Retail Floorspace in Tramore

Tramore Town Name of Study	Retail Vacancy	Convenience	Comparison	Bulky Vacancy	Bulky Comparison	Total
DTZ Pieda Consulting 2005	110	3,000	2,620			5,730
WCC Review 2019	446	10,108	2,235	650	2,202	19,509
Difference	336	7,108[9]	-385	650[10]	2,202	13,779

Source: Waterford City & County Council

Notes to Table:

Convenience: The additional 7,108 sq. m. is due to new developments since the 2005 DTZ survey such as Tesco, Lidl, and most recently Aldi in December 2019, as well as a small number of small food shops in the town.

The 2005 DTZ survey did not account for Bulky Comparison/Bulky Vacancy.

4.2.4 In addition there is a further c. 4,200 sq. m. of convenience floorspace and c. 2,400 comparison floorspace within the smaller towns and villages in county Waterford in 2019.

4.2.5 The following section sets out the main changes in floorspace which have occurred

since the previous surveys in 2011 in City and 2005 in County.

4.3 WATERFORD CITY

Convenience

4.3.1 Between 2012 and 2019 Waterford City has seen only a modest increase in convenience floorspace of c. 2,950 sq. m., an increase of 9.3% over a seven year period. Roughly half of this was accounted for by the new Aldi Ardkeen store with the balance made up by new smaller independent stores throughout the city.

4.3.2 In terms of pipeline, the only significant development with planning permission is the Michael Street/New Street Shopping Centre which contains c. 2,885 sq. m. of convenience floorspace.

Comparison

4.3.3 Between 2012 and 2019 the amount of comparison floorspace in the city actually contracted with a reduction of c. 700 sq. m. in floorspace. While this reduction can partly be attributed to a reclassification of shops selling electrical/household goods as bulky comparison, it does clearly demonstrate how stagnant the comparison retail sector has been in the city over the last decade.

4.3.4 However, this is in line with trends nationally, which have seen very limited new comparison retail developments in Ireland in recent years

4.3.5 Again, in terms of pipeline, the only significant permitted development is the proposed Michael Street Centre, which contains c. 6,730 sq. m. of comparison sales space.

Bulky Comparison

4.3.6 Between 2012 and 2019, other than the reclassification of the Butlerstown Retail Park, an additional c. 2,560 sq. m. of bulky comparison floorspace was added to the city's stock. This is reflective of the fact that the main growth in retail warehousing occurred prior to the publication of the Retail Guidelines in 2012, with relatively modest increases since then.

4.3.7 In terms of pipeline there are no major planned developments with existing planning permissions. However, there is c.1,750 sq. m. of bulky comparison floorspace currently vacant in a number of business parks around the city.

Vacancy Levels

4.3.8 Based on WCCC 2019 survey figures, the total retail vacancy rate in the city is currently 14.6%. However, when you strip out the bulky comparison vacant floorspace the retail vacancy rate increases to 16.0%. However, as this figure is the vacancy rate for the entire city and suburbs, it is not directly comparable with the 2012 vacancy figure of 8.5%, which was solely for the city centre. Overall approximately 11,700 sq. m. of convenience & comparison floorspace is currently vacant within the city and suburbs.

4.3.9 This current vacancy rate estimate of 16% is consistent with the Q2 2019 GEOVIEW Commercial Vacancy Rates Report[2] which found that Waterford city had an overall commercial vacancy rate of 17.1%.

4.4 DUNGARVAN

Convenience

4.4.1 Between 2005 and 2019 the extent of convenience floorspace in the town has increased by 3,675 sq. m.. Of this c. 2695 sq. m. is accounted by the opening of a Lidl and an Aldi store in the town. The balance of 980 sq. m. is made up of new small independent shops opening.

Comparison

4.4.2 Over the 14 years 2005-2019 there has only been a very modest increase in the amount of comparison floorspace in the town of in the order of just over 300 sq. m.

Bulky Comparison

4.4.3 This is the retail category which has shown the biggest growth in Dungarvan over the last decade. Since 2005 almost an additional 12,000 sq. m. of floorspace has been added in this category, mainly in business parks such as Shandon, Applegate, and Dungarvan parks

Vacancy Levels

4.4.4 Overall Dungarvan has a vacancy rate of 14.5%. However, when you strip out the bulky company figure the retail vacancy rate drops to 12.5%.

4.4.5 The commercial vacancy rate as published by GeoDirectory in July was 13.6%

4.5 TRAMORE

Convenience

4.5.1 Tramore has seen a very significant increase in the amount of convenience floorspace in the town. Since 2005 the amount of additional convenience floorspace has increased by over 7,100 sq. m. This is primarily accounted for by the opening of new Tesco and Lidl supermarkets and a new Aldi supermarket which opened in December 2019. A further c. 500 sq. m. has been added by a new Applegreen station and some small food shops.

Comparison

4.5.2 Tramore's comparison offering which has always been very modest, recorded a decline in floorspace in the order of 385 sq. m. over the period 2005-2019.

Bulky Comparison

[2] Source GeoDirectory Database @ 12/7/2019

4.5.3 This category of retailing was not included in 2005. However, by 2019 there is now c. 2,200 sq. m. of bulky comparison floorspace.

Vacancy Levels

4.5.4 Tramore has an overall vacancy rate of 5.6%. However, when you omit the bulky comparison floorspace, the retail vacancy rate drops to 3.6%.

4.6 COMPARISON WITH CORK

4.6.1 To give context to these figures it is useful to compare existing retail floorspace provision in Waterford with other cities in Ireland. In this regard we have comparable figures for the Cork Metropolitan Area from a 2013 study. Some of the notable differences between Cork & Waterford include:

- In Cork the comparison floorspace accounts for 45.5% of all retail floorspace, while in Waterford the equivalent figure is only 28.5%.
- Conversely in relation to bulky goods floorspace, the Cork percentage figure is 27% whereas in Waterford the figure is 52%
- When expressing the figures as sq.m. floorspace per capita, this again shows how the comparison sector in Waterford is under-developed compared with Cork. Thus, in Cork there is 0.63 sq.m. comparison floorspace per capita, whereas in Waterford the figure is 0.46.

4.6.1 What these comparator figures illustrate is the fact that the existing comparison shopping provision in Waterford County, particularly within the city, is relatively under provided for, relative to both Waterford's population and convenience and bulky goods markets.

4.7 HOUSEHOLD SURVEY

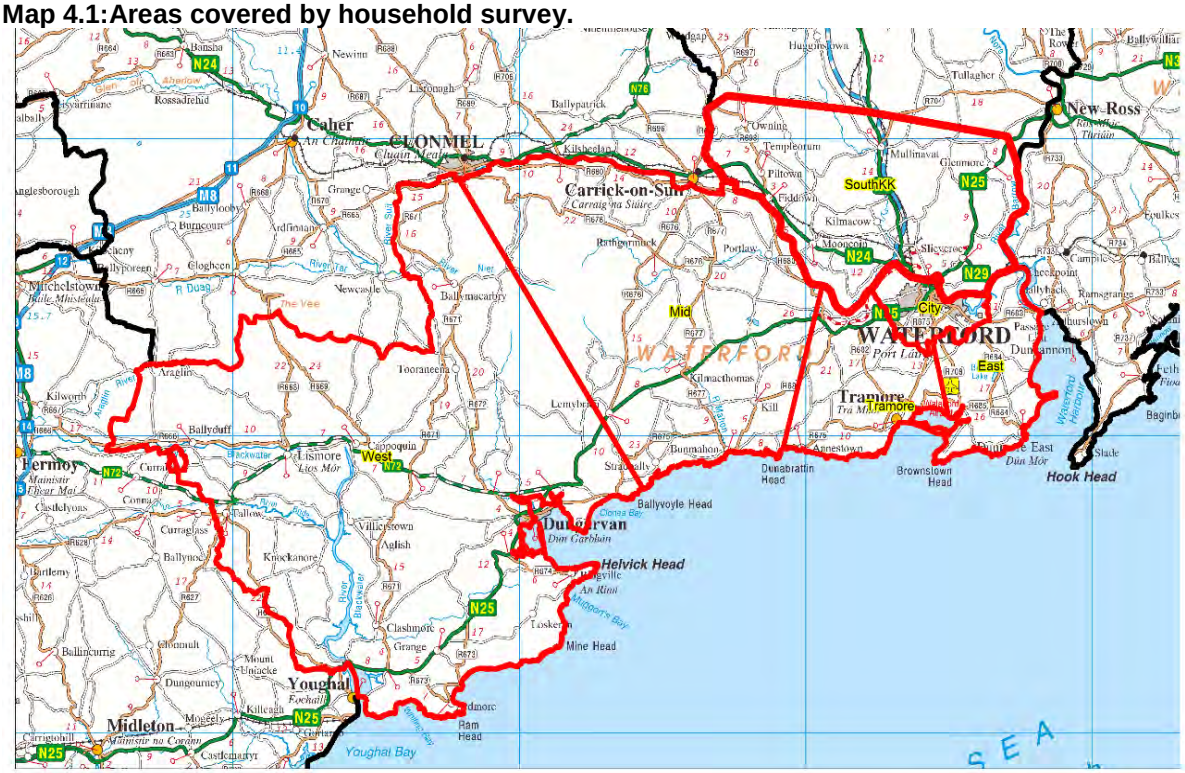
4.7.1 The household survey is an essential survey in order to establish the existing shopping patterns in Waterford City and County for different retailing types including clothing, footwear, food and household goods.

4.7.2 During the month of September 2019 a telephone survey of 500 No. respondents was carried out by Demographics Ireland in connection with the preparation of a new City & County Retail Strategy. This is considered to be a representative sample and is comparable to household surveys conducted for other county retail strategies.

4.7.3 The respondents were broken down by geography (see Map 4.1) as follows:

	Number	Percentage
- Waterford City:	200	40%
- Tramore:	50	10%
- Rest of East Waterford:	25	5%
- Mid Waterford:	50	10%
- West Waterford (incl. Dungarvan):	100	20%
- South Kilkenny:	75	15%

Map 4.1:Areas covered by household survey.



Demographics Ireland 2019

4.7.4 The findings of the survey have been grouped under the following six headings – Food/Grocery, Clothing/Footwear, Furniture, Electrical Goods, Other Centres outside Waterford, and Satisfaction Levels with Shopping in Waterford.

Food & Grocery

- 79% of respondents do a regular main shop
- Of these 62% do main shop once a week

- Food/Grocery shopping is generally done relatively locally
- Tesco, Ardkeen and Dunnes, Dungarvan recorded highest percentage in City and Dungarvan respectfully.
- Top-up shopping done very locally, with 69% of respondents doing it at least twice a week.
- Only 3% of respondents shop on-line for groceries.[3]
- Very little leakage out of County, and where it does occur it is primarily for top-up shopping by respondents who either live outside or on the edge of the county (mainly to New Ross, Carrick & Youghal)

4.7.5 The following Table 4.4 summarises the main locations where the respondents do their main grocery shopping. Although not as prominent a feature as in previous studies, 79% of respondents do a regular major shop, with 62% of respondents doing a major grocery shop once a week and a further 10% do such a shop even more frequently. In terms of where people shop, 98% of all respondents who do a major shop, shop within Waterford city and county. Of note is the fact that all of the major grocery shopping is done with Dunnes, Supervalu and Tesco supermarkets, and not in any of the discount stores.

Table 4.4 Location of where respondents do main grocery shopping

Shop	Location	Count	%
Dunnes Stores, City Square Waterford	Waterford City	17	3%
Tesco, Poleberry	Waterford City	6	1%
Tesco, Ardkeen	Waterford City	47	9%
Supervalu, Tramore Road, Waterford	Waterford City	30	6%
Supervalu, Hypermarket, Waterford	Waterford City	32	6%
Supervalu, Dungarvan	Dungarvan	23	5%
Dunnes Stores, Dungarvan	Dungarvan	42	8%
Tesco, Lisduggan	Tramore Area, County Waterford	19	4%
Tesco, Tramore	Tramore	14	3%
Supervalu, Cappoquin	West Area, County Waterford	5	1%
Supervalu, Tramore	Tramore	18	4%
Tesco, New Ross	Wexford	4	1%
Total		257	

4.7.6 In relation to respondents living in Co. Kilkenny, 94% of do their main grocery shopping in Waterford city, with the two Supervalu supermarkets plus the City Square Dunnes being the main shops visited. For top-up shopping, which is done much more locally, the equivalent figure is 48%.

4.7.7 In relation to top-up grocery shopping, 69% of the respondents reported at they do top-up shopping for food and groceries at least twice a week, and this shopping is

[3] It is likely that since the introduction of Covid-19 restrictions in March 2020, this level of on-line grocery sales will have increased.

undertaken very local to where they live, as is evidenced for Table 4.5 below.

Table 4.5 Location of Top-up Shopping

Location	District	County	Number	%
Abbeyside	Dungarvan	Waterford	15	3%
Dungarvan	Dungarvan	Waterford	42	8%
Kilrush	Dungarvan	Waterford	1	0%
Dunmore	East Area, County Waterford	Waterford	5	1%
The Glen	East Area, County Waterford	Waterford	3	1%
Kilmacthomas	Mid Area, County Waterford	Waterford	5	1%
Kilmeaden	Tramore	Waterford	4	1%
Tramore	Tramore	Waterford	46	9%
Ardkeen	Waterford City	Waterford	60	12%
Ballybeg	Waterford City	Waterford	8	2%
Ballytruckle	Waterford City	Waterford	1	0%
City Square	Waterford City	Waterford	4	1%
Ferrybank	Waterford City	Waterford	11	2%
Hypermarket	Waterford City	Waterford	16	3%
Kilbarry	Waterford City	Waterford	5	1%
Lisduggan	Waterford City	Waterford	21	4%
Lismore Park	Waterford City	Waterford	3	1%
Morgan Street	Waterford City	Wat	3	1%
Poleberry	Waterford City	Waterford	9	2%
St John's Waterford	Waterford City	Waterford	3	1%
Tramore Road	Waterford City	Waterford	9	2%
Waterford	Waterford City	Waterford	23	5%
Aglish	West Co Waterford	Waterford	2	0%
Cappoquin	West Co Waterford	Waterford	4	1%
Clashmore	West Co Waterford	Waterford	2	0%
Lismore	West Co Waterford	Waterford	9	2%
Tallow	West Co Waterford	Waterford	6	1%
Total Waterford			320	90%
Youghal	Cork	Cork	2	1%
Piltown	County Kilkenny	Kilkenny	3	1%
Kilkenny	Kilkenny	Kilkenny	4	1%
Kilmacow	Kilkenny	Kilkenny	4	1%
Mooncoin	Kilkenny	Kilkenny	4	1%
Mullinvat	Kilkenny	Kilkenny	9	2%
Carrick-on-Suir	Tipperary	Tipperary	4	1%
Clonmel	Tipperary	Tipperary	1	1%

New Ross	Wexford	Wexford	2	1%
Total outside Waterford			33	10%

Clothing & Footwear

4.7.8 Of those respondents who shop for clothes and footwear in shops in Ireland, 89% of respondents shop in Waterford city and county. Of these 86% shop within Waterford city centre, with the balance (14%) shopping in Dungarvan. 11% of respondents shop outside of Waterford county, with Cork being the preferred location (52%), followed by Dublin (22%) and Kilkenny (14%).

4.7.9 In relation to respondents living in Co. Kilkenny, 93% do their clothes and footwear shopping in Waterford city.

- 89% of respondents shop in Waterford City & County, of which 86% shop in city and a further 14% in Dungarvan for Clothing & Footwear.
- 11% shop outside county, mainly to:
- Cork 52%
- Dublin 22%
- Kilkenny 14%
- Kildare Village 8%
-
- Of those who do shop in Cork, 80% live in West Waterford, while 75% of those who shop in Kilkenny live in South Kilkenny.
- Dublin shoppers are drawn from across the County
- Two-thirds (67%) of shoppers for Clothing/Footwear, shop between once a month to once every six months
- 25% of respondents used on-line shopping for clothes/footwear in last two months

4.7.10 This level of leakage at 11% is relatively high. For example, the equivalent figure for the Cork Metropolitan area is a comparison leakage of just 2%. However, it should be noted that this figure only captures the percentage of shoppers who travel outside the city/county to shop. The actual spend by Waterford consumers when they shop for comparison goods outside the county is likely to be a higher percentage.

4.7.11 Anecdotally, unpublished data from credit card transactions would suggest that the level of comparison retail expenditure by Waterford consumers taking place outside the county may actually be a much higher percentage when measured by retail spend.

4.7.12 However, there are clear indications that there is a significant level of leakage that the City and County are losing. This has had the effect of supressing the demand for higher order comparison in Waterford, which is reflected in the lack of growth of additional comparison floorspace in city between 2012 and 2019.

4.7.13 Arising from this leakage it is evident that Waterford is currently not fulfilling its potential as the major retail centre for the south east region. However, this situation can be turned around and there is a significant opportunity to 'close the gap' as highlighted by the unmet capacity in City Centre and especially in relation to high order comparison retailing. This will be demonstrated further in chapter 6 when the city & county's future comparison floorspace needs are quantified.

4.7.14 Tourism is another sector which can help to grow the retail demand in both the city and county. Figures taken from the recent Rikon Report[4] suggest that given the significant tourist assets and increased connectivity, there is an opportunity for Waterford City and County to continue to see double-digit growth. This report notes that Waterford City and County current annual tourism spend of €127m is expected to more than double by 2025, reaching €275m and rising to €429m by 2040. In essence, tourism spend is expected to rise by 11% per annum until 2025, driven by an 8% growth in tourist numbers and by a 2.8% annual rise in average tourism spend per visitor over the 2018-2025 period[5].

4.7.15 A breakdown of tourism expenditure to determine amount spent on retail sales is not available. Furthermore, expenditure by tourists to the city and county are not captured in the expenditure figures used in the quantitative analysis in Chapter 6, as per the Retail Guidelines, but would be regarded as an additional source to stimulate retail demand, particularly in areas of high tourism interest to be found in both the city and county in Waterford.

Furniture

4.7.16 92% of all respondents who shop for furniture shop within Waterford city and county. Of these respondents 80% shop for furniture in the city with the balance in Dungarvan and other smaller towns. Harvey Norman and Easy Living account for 50% of shopping trips for furniture. Of those respondents who shop outside the county, Cork is the most dominant location (36%), followed by Clonmel (21%).

4.7.17 In relation to respondents living in Co. Kilkenny, 85% do their shopping for furniture in Waterford city

- 73% shop in Waterford City
- 18% shop in Dungarvan
- 8% shop outside county, of which Cork accounts for a third.
- 18% of respondents did not state where shopped/did not shop
- Less than 1% shop online for Furniture

Electrical Goods

4.7.18 18% of respondents either don't shop for electrical goods in stores or did not reply. Of those respondents which do shop in stores, 96% of respondents shop in stores within Waterford city & county, with 75% shopping within the city. Of the 4% which shop outside Waterford for electrical goods, Cork accounts for one third of trips.

[4] Waterford 2040 Regional City of Scale: Strategic Investment to 2040, Rikon, March 2020.

[5] All of the projections on tourism numbers and tourism spend were compiled prior to the outbreak of the Covid-19 pandemic in Ireland. It is likely they will need to be revisited in light of the major disruption to the tourism sector brought about by the pandemic.

4.7.19 In relation to respondents living in Co. Kilkenny, 87% do their shopping for electrical goods in Waterford city.

- 60% shop in Waterford City
- 18% shop in Dungarvan
- 4% shop outside County, with Cork again being the most prominent
- 18% of respondents did not declare.
- Less than 1% shop on-line for electrical goods.
- Around half of all purchases for electrical goods made in Kelly & Dollard, Harvey Norman & Shaws.

Other Centres Outside of County

- Two thirds of respondents have visited another city/town/shopping centre outside of County Waterford for shopping in last six months.
- Of this Cork accounted for 33%, followed by Dublin 26%, Kilkenny 24% & Kildare Village 13%.
- However the frequency to these centres is quite low (mainly once or twice in last 6 months).
- The main reasons given for shopping there were: Greater choice, combine with other purpose, and meet friends/relatives

Satisfaction Levels with Shopping in County

- Grocery/food: 91% satisfaction rating, with main issues being range, price & car parking
- Clothes/Footwear: Only 61% satisfied, with 28% dis-satisfied. Main issues are lack of range/choice, and to lesser extent parking.
- Bulky Household Goods: 84% satisfied, with main issues, range, cost & parking
- 41% of respondents combine shopping with other activities when visit city/town
- The main other attractors are:
- Food/Beverages: 62%
- Experience/Meet Friends: 19%
- Non retail activities: 11%
- Sports & Leisure: 4%

General Conclusions

4.7.20 The results of the household survey are significant in determining the levels of outflows and inflows of convenience, comparison and bulky goods expenditure from/to the administrative area of Waterford City & County.

4.7.21 Approximately 92% of comparison goods (average between clothing & footwear, furniture and electrical goods) expenditure in Waterford City & County is retained within the administrative boundary of the combined Council and this figure rises to circa 94% for convenience shopping (average between main grocery shop & top-up shopping). These figures are comparable with the last surveys conducted in 2011, and are reflective of the fact that there has been relatively little change to the retail landscape within the city and county, or within competing centres in the wider hinterland. The household survey also found that 94% of respondents living within the 0-30 minute isochrone in Co. Kilkenny do their grocery shopping in

Waterford, while the equivalent figure for comparison shopping is 88%.

4.7.22 The survey results also demonstrate a high level of satisfaction with the existing convenience and bulky goods floorspace within the City & County, but lower levels for comparison shopping.

4.8 SHOPPER'S SURVEY

4.8.1 The purpose of the shopper survey is to provide a profile of the people who visit Waterford city centre, the district shopping centres of Ardkeen and Lisduggan and the towns of Dungarvan & Tramore for shopping purposes, and to obtain their views on the quality and quantum of the retail offering. The shopper's survey also helps to analyse the shopping patterns of people who visit these centres from outside the County, as well as obtaining information on the levels of spend, the reasons for visiting the centres, and their suggestions as how the centres could be improved.

Methodology

4.8.2 The shopper's survey was undertaken in the three locations in Waterford City, and in the town centres of Dungarvan and Tramore in September 2019. It was also carried out by Demographics Ireland and included a street interview with 400 respondents. The surveys were carried out at the following locations in the City Centre:

- Shaws Department Store on the Quays.
- Main Entrance to City Square Shopping Centre.
- Barronstrand Street.
- Poleberry (TK Maxx).

4.8.3 Respondents were interviewed both at the weekend and during mid-week, during the principal shopping hours. Surveys were not carried out over bank holiday weekends, as these may have distorted normal shopping patterns. This is considered to be a representative sample and is comparable to shopper surveys conducted for other county retail strategies. Such surveys provide an established method to gauge shopper preferences and trends, and as such are recognised as an essential element of standardised retail strategy methodologies. A summary of the results of the survey is provided below.

4.8.4 The respondents were broken down by geography as follows:

	Number
Waterford City Centre:	100
Ardkeen:	50
Lisduggan:	50
Durgarvan:	100
Tramore:	100

4.8.5 The findings of the survey have been grouped under the following 9 No. headings:

- Social Class of Respondents
- Geography of Respondents
- Means of Transport
- Purpose of Visit to Centre
- Level of Spend
- Attractions of Centre
- Suggested Improvements
- Shopping Outside County and;
- On-line Shopping.

Social Class of Respondents

5 Across the five centres the social class of the respondents is broken down as follows:
6 Social Class B – 15%; C1 – 37%; C2 – 19%; D – 24%; E & lower – 5%.
7 However, there were significant variations between the different locations. In particular the social class of the Waterford city respondents was significantly lower than the county average – for instance only 4% of respondents were in Class B, whereas 50% were in Class D or lower (against County average figures of 15% and 29% respectively).
8 Conversely Ardkeen and Tramore had above average numbers in the B class and fewer in the D or lower class.
9 Assuming the sample respondents are representative of the wider shopper population to an area, these socio-economic differences in profile have a significant bearing on shopping behaviour and levels of spend.

Geography of Respondents

- The vast majority of respondents (79%) in Waterford city centre, Lidduggan, and Tramore were residents of the respective areas.
- The exceptions were Ardkeen and Dungarvan where a third or more of the respondents travelled from outside the area to visit the centre. In the case of Ardkeen this was mainly from other towns/villages in east of county, while for Dungarvan it was from towns in West Waterford. On average 6% of shoppers surveyed in Waterford city came from outside Waterford county, while all shopper respondents in both Dungarvan & Tramore came from within Waterford county.

Means of Transport

- The vast majority (75% +) of respondents to both towns and the two district/suburban centres travelled to the centre by car. The balance was mainly travel on foot.
- Only in the city centre was the transport modal split more balanced. Here less than half (47%) travelled by car, with 36% walking and a further 14% by bus.

Purpose of Visit to Centre

- For the two towns and district/suburban centres the principal reason given for vising the centre was to undertake either the main or top-up grocery shopping. As a percentage this ranged from 75% for Dungarvan to practically 100% for Tramore.
- The equivalent figure for Waterford city centre was much lower at 47%, reflecting the more diverse range and functions of the city.
- For the city centre the two other main reasons for visiting the city centre were shopping

for clothes and footwear and for eating out.
- Shoppers to Dungarvan also listed these two reasons but to a somewhat lower extent.
- Of the district/suburban centres, only Ardkeen had more than a third of respondents list eating out as an important factor.

Levels of Spend

- The levels of spend in each of the centres is closely linked to the purpose of the visit (main grocery shop/top-up food/comparison shopping/ non retail visit), and to the socio-economic profile of the respondents.
- Thus for instance between 40-50% of respondents to Ardkeen, Lisduggan & Tramore spent less than €30, on mainly grocery shopping.
- Conversely 41% of respondents to city centre and 56% of respondents to Dungarvan spent on average €50 - €150 on the visit, reflecting the higher levels of comparison shopping.
- The higher numbers of respondents who travelled by bus or on foot to city centre could also affect the spend profile.

Attractions of Centre

- For Waterford city centre the main attractions for respondents were the presence of good shopping malls and pedestrianised streets
- For the two towns the main attractor was the overall shopping environment.
- In respect of the district/suburban centres the quality of the shopping malls topped the list of attractions.
- In terms of the retail offering the main attractions for Waterford city centre and Dungarvan was the choice of clothes/footwear shops.
- For the other three centres a good choice of places to eat & drink were the attractors scored highest.

Suggested Improvements

- Across all centres the number one improvement to the retail offering most frequently mentioned by respondents was to increase the range of shops, and particularly for the city more designer shops/boutiques.
- In terms of environmental improvements, the issues varied across the five centres. For the city centre the main issues were improved safety/security and more events.
- For Dungarvan the two principal issues were the need for more public toilets and pedestrianised streets.
- For Tramore there was no one dominant issue, although more facilities for the disabled was most frequently mentioned.
- For the two district/suburban centres the top two issues were more public toilets and improved security.
- In terms of issues around improvements to accessibility, across all five centres the number one suggested improvement was the introduction of free or cheaper car parking.
- Improved access by car was regularly referenced by shoppers to the three Waterford city centres

Shopping Outside County

- While Waterford City is by far the dominant location for shoppers across the county, a number of respondents do shop outside of the county. However, of those that do approximately two thirds shop only once every three months or less frequently.
- The main centres where respondents visit to shop outside of the county are:

- Kilkenny (20% of respondents)
- Cork (13%)
- Dublin (12%)
- Kildare Village (6%)

On-Line Shopping

- Overall the percentage of respondents who at least sometime shop on-line is 45%. However, this figure varies from a high of 54% in Ardkeen to a low of 40% in Tramore and 35% in Dungarvan.
- Of those who do shop on-line, approximately one third shop several times a month, one third shop about once a month and one third shop on-line less frequently.
- By far the main type of goods bought on-line across all locations is clothing and footwear, with electrical goods a distant second.

CHAPTER 5

Health Check Assessment

5.1 INTRODUCTION

5.1.1 This section of the report provides an overview of the retail profile and health check assessment of Waterford city centre and the town centres of Dungarvan and Tramore. In particular this section of the report assesses new major retail developments which have been permitted and developed in the City & County in the past number of years and discusses the implications of this development for the future retail role and function of the city and key towns. The vitality and viability of the City Centre as well as the principle town centres will be assessed.

5.1.2 Annex 2 of the Retail Planning Guidelines sets out the matters that should be taken into account when determining the vitality and viability of town centres. A health check assessment of Waterford City and the towns of Dungarvan & Tramore is an integral part of the retail strategy. A health check assessment essentially analyses the strengths and weaknesses of town centres and is based on a qualitative analysis of factors such as the range and quality of activities in the centre, its mix of uses, its accessibility to people living in the area and its general amenity appearance and safety.

5.1.3 The Retail Planning Guidelines provide a comprehensive checklist of information to be included in a health check assessment. It is stated in the guidelines that a healthy town centre; which is vital and viable, balances a number of qualities including:

Attractions **-** These underpin a town and comprise the range and diversity of shopping and other activities which draw in customers and visitors.

Accessibility **-** Successful centres need to be both accessible to the surrounding catchment area via a good road network and public transport facilities, and to encompass good local linkages between car parks, public transport stops and the various attractions within the centre.

Amenity **-** A healthy town centre should be a pleasant place to be in. It should be attractive in terms of environmental quality and urban design, it should be safe and have a distinctive identity and image.

Action **-** To function effectively as a viable commercial centre, things need to happen. Development and improvement projects should be implemented efficiently; there should be regular and effective cleaning and maintenance and there should be co-ordinated town centre management initiatives to promote the continued improvement of the centre.

5.1.4 In addition to the above factors, the Guidelines also recommend a number of other indicators that can be used to determine the vitality and viability of existing town centres. However, some of the information set out in the guidelines is not available for centres outside of the main metropolitan areas, for example- shopping rents; pattern of movement in retail rents within primary shopping areas.

5.1.5 In order to determine the vitality and viability of Waterford City Centre and the Town Centres in Dungarvan & Tramore the following indicators were utilised:

- Attractions

- Accessibility
- Environmental Quality/Amenity
- Diversity of Uses
- Multiple Representation
- Levels of Vacancy

5.1.6 Factors such as the extent of recent development, the suitability of existing floorspace and future development opportunities are also considered.

5.2 ATTRACTIONS

Waterford City Centre

5.2.1 Waterford is the fifth largest city in the state and is a major urban centre serving the south eastern region. It is a major retail centre in its own right, not only serving the county but a wider catchment area. The traditional shopping streets of the city are focussed on Barronstrand Street, Broad Street, John Roberts Square, Georges Street, John Street, Michael Street, Arundel Square and the South Quays.

5.2.2 The prime retail locations include Barronstrand Street (Image 5.1) and John Roberts Square (Image 5.2), where a number of high street retailers including Tommy Hilfiger, Clarkes, Penneys, Boots, Foot Locker, Sketchers, and Lifestyle are represented. In addition there is the City Square Shopping Centre. This facility opened in 1993. The centre which is anchored by Dunnes Stores, has been successful in attracting some multiple retailers who were not present in Waterford before. The gross floorspace of the development is 18,580 sq. metres and includes 30 units. The development is served by a car park with 450 spaces. The centre has generally had high rates of occupancy and has good customer facilities and a clean internal environment. Although the shopping centre has been extended in recent years, the appearance of the centre is now somewhat dated.

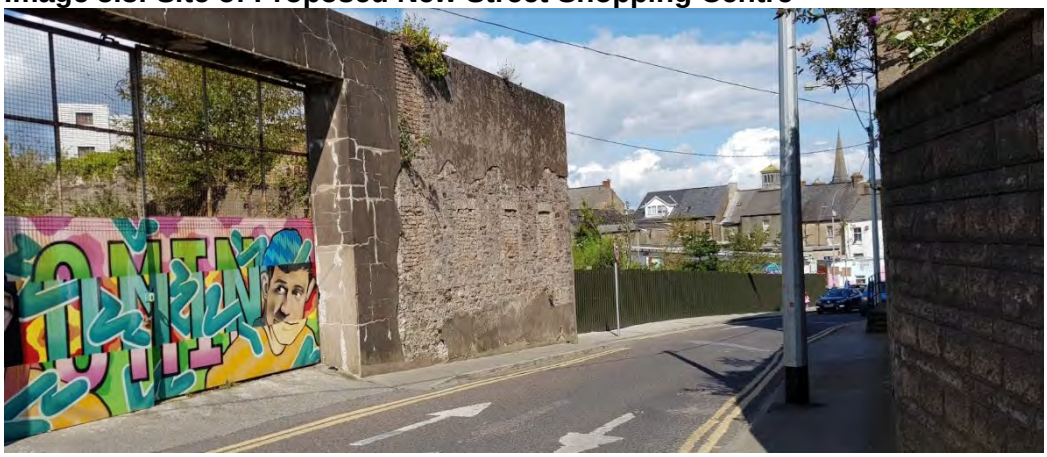
Image 5.1: Barronstrand Street looking towards Clock Tower

Image 5.2: John Robert's Square

5.2.3 Georges Court is another small enclosed Mall located off Barronstrrand Street. The centre has a somewhat dated environment, and contains a number of vacant units.

5.2.4 Other than a modest extension to the City Square Shopping Centre, whose units remain vacant, there has been very little retail development in the city centre since the last City Retail Strategy was prepared in 2012. Planning permission was granted by An Bord Pleanala for a mixed use retail development in the Michael Street/New Street area, but this development has not commenced to date. However, this site has now been acquired by an international investment & development company and there is good prospects that this site will be redeveloped in the short term which would be a significant new retail attraction for the City.

Image 5.3: Site of Proposed New Street Shopping Centre



5.2.5 John Roberts Square is a major civic attraction in its own right. It has been the focus of major environmental works and now accommodates public seating, landscaping and attractive stone sett paving. The square acts as a major focal point for people to meet and congregate in the City and accommodates functions such as food markets, kiosks and street entertainment. The square is also easily linked to the two main retail attractions in the City Centre area – City Square and

Georges Court. It is also easily accessible from the quays.

5.2.6 The City accommodates a number of restaurants and bars which are important in terms of the night time economy of the City. The area around High Street and Henrietta Street have developed as a restaurant cluster, with 7 restaurants/cafes located in this area. The Odeon cinema opened in the Railway Square area which was a welcome addition to the City, as was the reopening of the vacant Multiplex cinema on Patrick Street. There are also a number of night clubs, particularly around Parnell Street/John Street Intersection.

5.2.7 The City Centre is generally compact in nature and presents and attractive retail environment to shoppers with a broad range of tourism, cultural, retail, service and leisure activities.

5.2.8 Waterford City is the oldest city in Ireland. A walled city of Viking origins, it retains much of its medieval character together with the graceful buildings from its 18th century expansion. There are many fine examples of 18th century architecture in the City including the Chamber of Commerce building, the City Hall and the Bishop's Palace.

Image 5.4: Bishop's Palace

5.2.9 The City accommodates Reginald's Tower, one of the most important medieval monuments in Ireland. The tower is the oldest civic urban building in Ireland. Much of the City's historic walls are also still intact.

5.2.10 Waterford City is also the home of Waterford Crystal, the world-famous hand-crafted, cut glass product. The House of Waterford Crystal opened on the Mall in 2010. This is a major tourist attraction and City benefits from the tourist influx to this facility.

5.2.11 Other attractions include:

Waterford Museum of Treasures – This is made up of three separate museums – Reginald's Tower which houses the Viking museum, the Bishop's Palace which houses the Georgian museum and the Medieval Museum, which is an award

winning museum is housed in a purpose built building located in the heart of the Viking Triangle between the former Deanery and the rear of the Theatre Royal.

Image 5.5: Medieval Museum

Garter Lane Arts Centre - This arts centre is housed in a Quaker meeting house built in 1792. The centre houses a theatre where there are regular performances of theatre, film and music.

Christ Church Cathedral - considered one of the finest 18th century ecclesiastical buildings in Ireland.

Theatre Royal - this is a fine 19th Century theatre and it houses part of the City art collection (Image 5.3).

Municipal Gallery – This gallery, housed in the original Waterford Savings Bank Building in O'Connell Street, display the Council's extensive art collection.

King of the Vikings – this virtual reality experience is the first of its kind. The adventure takes place in a reconstructed Viking house and seamlessly blends cutting edge technology with ancient Viking house building techniques.

French Church – Remains of Huguenot Church which have been preserved.

Image 5.6: French Church

5.2.12 Other significant features and attractions in the City include the Cathedral of the Most Holy Trinity, Clock Tower, City Hall, Court House and the People's Park. There are also a number of important religious buildings and churches including Blackfriars, Franciscan Friary, Greyfriars St. Johns Church, St. Patrick's Church and Priory of St. Saviour. A museum at Mount Sion (Barrack Street) is dedicated to the story of Brother Edmund Ignatius Rice and the history of the Christian Brothers and Presentation Brothers.

5.2.13 In terms of cultural events, the SPRAOI festival, organised by the Spraoi Theatre Company, is a professional festival and street arts organisation held in Waterford during the August bank holiday weekend each year. It attracts crowds in the region of anywhere up to 80,000 people. The Spraoi Festival concentrates on showcasing top quality national and international street art and world music.

5.2.14 The Tall Ships Festival was first held in Waterford in 2005. The festival attracted in the region of 450,000 people to the City in what was the biggest event ever held in Waterford or the south east. Waterford hosted the start of the Tall Ships race again in 2011, which again showcased the potential of the city's Quays for recreational and amenity use.

5.2.15 The Waterford Harvest Food Festival takes place annually in September, when a number of the city centre streets are closed to traffic and extensive food stalls are installed. The festival offers visitors demonstrations, workshops and tours of local producers, numerous markets, tastings and dinners.

5.2.16 There are a number of Arts Festivals held in the City during the year, the largest and longest established being the Imagine Arts Festival in October.

5.2.17 The cultural, tourism and artistic attractions of the City are notable and have the potential to attract significant visitors and tourists to the City. For example the recently published Rikon[6] report stated that tourism spend in Waterford City & County was forecasted to double by 2025 rising to €275 million.

5.2.18 The River Suir bisects the City and is a major amenity and natural feature. The

[6] Waterford 2040 Regional City of Scale, Rikon 2020

South City Quays are a major focal point for Waterford, commercially and socially, and the face that Waterford presents to those traveling into the City from the north. However, they are somewhat cut off from the City by the former N25 which runs along the quays. It is noted however, that efforts have been made in recent years to lessen the impact of traffic on the Quays and to improve the pedestrian environment, although there is scope to significantly improve and enhance the environmental quality of the quays in the future and develop their amenity value.

5.2.19 The quays area has been the focus of a number of significant improvements over the last number of years. However, they are still dominated by large tracts of surface car parking (Images 5.6 and 5.7 overleaf). Whilst it is recognised that this parking is important in improving the accessibility of the City, it is perhaps not the optimal use of these lands. There is clear potential to enhance the linkage and connections between the car parking areas and the City Centre through improved pedestrian connections and traffic calming.

5.2.20 Many of the streets leading from the quays to the City Centre area have been the focus of very attractive high quality environmental improvements and paving works thus creating very effective linkages between the quays and the City Centre area. Nonetheless there is clearly scope for strengthening the connections and synergy between the City Quays and the City Centre. This is acknowledged in the City Centre Report 2009 which identifies that the Clock Tower has the potential to be developed as a 'gateway' and should be developed to signify the City Centre, to improve legibility and identify to visitors the commercial heart of the City.

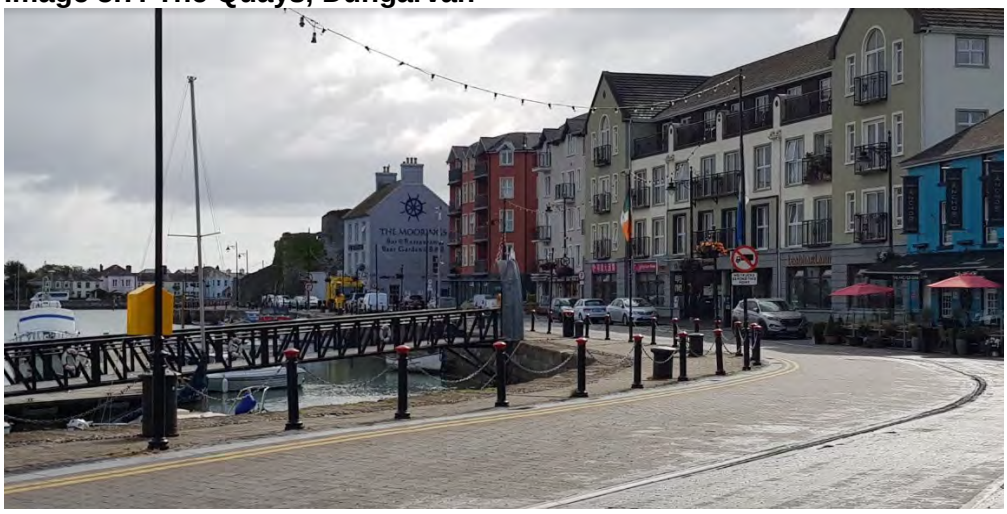
5.2.21 A characteristic of the City is the fact that the buildings along the quays face the river rather than turning their back on it, a characteristic which is found in many Irish towns. The majority of the building stock on the quays is in good condition and there are relatively low vacancy rates. The quays accommodate a number of significant hotels including the Granville Hotel, Dooley's Hotel and the Bridge Hotel, together the with the Tower Hotel which has recently undergone extensive renovations and extensions, as well as a number of pubs and restaurants. However, the majority of retail units tend to be occupied by lower order retailers and there is certainly scope to develop the quality of retail representation in this area.

Dungarvan Town Centre

5.2.22 Dungarvan has a number of attractions which greatly contribute to the overall attractiveness of the town. These include an array of architectural, archaeological and cultural heritage, most noteably John's Castle. The town's core shopping is focused around and linked to the central square (Grattan Sq.); and a strength of the retail offer has been the success in ensuring that retail developments have been limited to within the N25 ring road.

5.2.23 Over the last number of years the town has developed a strong reputation for food and a number of festivals have built up around this. There are also a good number of high quality restaurants and bars serving the needs of both the resident population, but also the increasing number of visitors to the town, which was boosted two years ago with the opening of the Greenway linking Dungarvan to Waterford.

Image 5.7: The Quays, Dungarvan



5.2.24 The opening of the Dungarvan Shopping Centre in the town centre, greatly improved the comparison retail offering in the town, and the creation of a pedestrianised street connection from this centre to Grattan Square has helped to knit the centre into the core retail area.

5.2.25 In recent years significant upgrade works have been carried out to the public realm which has improved the attractiveness of the town centre for shoppers.

Tramore Town Centre

5.2.26 Tramore has a long history of being an important and popular seaside resort town, attracting large numbers of visitors to the town, mainly during the summer peak tourism season. However, over recent years great strides have been made to diversify the tourism product offering and to expand the tourism season into the shoulder months. With the growing popularity of surfing and other water sports, Tramore is developing into an all year round visitor destination.

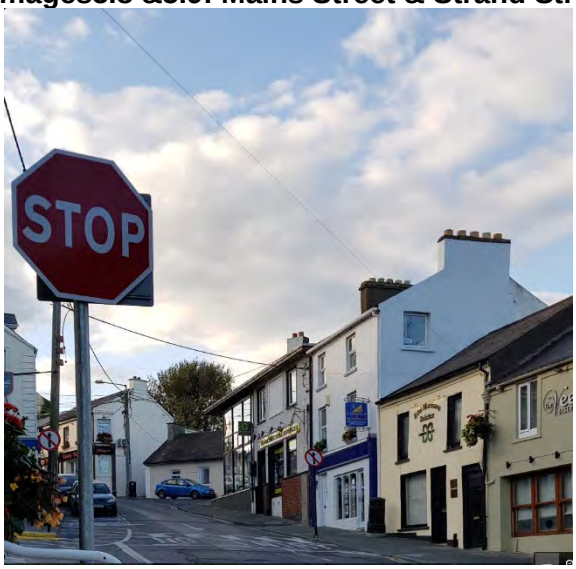
5.2.27 This has been facilitated by the development of a number of attractions along the promenade, including the National Surf Training Centre, as well as public realm improvements to the promenade itself. The private sector has responded in turn and there are now a number of shops, cafes and restaurants along the seafront which remain open all year round.

5.2.28 While the number of comparison retail outlets in the town remains very limited, the town has significantly expanded its convenience retail offering, with the opening of Tesco and Lidl outlets in the town in recent years. With the opening of the Aldi store in the town in December 2019, Tramore is now well catered to meet the convenience shopping needs of the resident population. The town traditional high street consists of Main Street/Strand Street , which connects the lower to the upper town.

5.2.29 Significant further improvement works to the public realm are planned with

assistance from funding under the URDF, which will see further improvements to the appearance of the town centre and enhanced connectivity from the main street to the promenade.

Images5.8 &5.9: Mains Street & Strand Street, Tramore



5.3 ACCESSIBILITY

Waterford City Centre

5.3.1 Waterford City centre is highly accessible to the south east region. The City is a major transportation hub with the railway station located across Rice Bridge on the north side of the city, within easy walking distance of the City Centre. Train services are provided to Dublin and Limerick.

5.3.2 Under the North Quays SDZ Planning Scheme there are proposals to relocate the existing train station and bus station to a new integrated public transport hub to be developed as part of the overall North Quays mixed development. A new pedestrian/public transport bridge is also planned as part of the North Quay proposals which would provide a direct link between this new transport hub and the city centre.

5.3.3 The City is also served by regular regional and city bus services by Bus Eireann and JJ Kavanagh/Kenneally City Services. The bus station is located on the South City Quays and thus has excellent accessibility to the City Centre.

5.3.4 Over the last number of years the road network in the greater Waterford area have improved greatly. The City is connected to Dublin, Carlow & Kilkenny by motorway (M9) and has good national primary road connections to Cork,, Dungarvan, Limerick, Clonmel, Wexford, and Rosslare Europort. In 2009 the N25 Waterford City Outer Ring Road was opened. The route consists of 23km. of high quality dual carraigeway as well as 14 km. of single carraigeway and a second crossing over the River Suir. These significant road projects have helped to reduce journey times to the city from the wider catchment area.

5.3.5 The delivery of the City By-Pass has resulted in an improved traffic environment in the City Centre, including along the South Quays. However, whilst the new road infrastructure has greatly improved accessibility to the City, it can also have the converse affect. As noted in the City Centre Report prepared by the Council in 2009, *"it is important to be conscious that motorways are a two way system, and can make Dublin and other large urban centres potentially attractive shopping destinations alternatives."*

5.3.6 The City has benefited from a programme of environmental improvements in recent years and many of the main streets and side streets have high quality paving and footpaths (Images 5.17 and 5.18). There is a high level of pedestrianisation in the city centre including the majority of Barronstrand Street and John Roberts Square, the walkway through Arundel Square, Georges Street, Michael Street and parts of John Street. Generally the pedestrian environment is of high quality and poses few difficulties to the elderly, disabled or mother with young children. There are some areas however where the pedestrian environment is somewhat poorer, for example, at the Railway Square development (TK Maxx) there are different levels and steps to negotiate which create a somewhat poor pedestrian environment, although it should be noted that this area is in private ownership.

5.3.7 The City is well served by car parking and there are over 2,600 on street and off street car parking spaces. Notwithstanding this it is noted that both the household and shoppers survey revealed that respondents would like to see improved car parking facilities. Approximately 965 car parking spaces are provided along the South City Quays. The quality of this surface car parking is variable and would benefit from enhanced hard and soft landscaping as well as a more streamlined and consistent payment system. The location of parking along the City Quays is beneficial in that it provides easily accessible parking in close proximity to the City. It is nonetheless not the optimal use of these lands which could potentially have a significant amenity function for the City. It is understood that the Council propose to investigate the feasibility of developing underground car parking instead of surface provision along the Quays.

5.3.8 The City Square Shopping Centre is served by a large 2 level basement car park with approximately 400 car parking spaces which link directly to the shopping centre by way of travelators. The centre is linked through to John Roberts Square from Arundel Square. There is a further multi storey car park at New Street. There are also a number of other smaller car parking areas including Jenkins Lane, Mayors Walk, Bolton Street, Thomas Hill, James Street, the Glen and Ballybricken. There is further on street parking at Parnell Street, The Mall and Arundel Square. A multi-storey car park is also proposed as part of the permitted in the Michael St./New Street scheme.

5.3.9 There is limited accessibility for cyclists in the City. There are few cycle lanes within the City area and limited bicycle parking provision. The Council has installed some bicycle parking provision on the quays and at John Roberts Square. However this situation is changing and will improve further when the Waterford Greenway is extended into the city centre and across the new bridge to the North Quays, from where it will connect into the planned New Ross greenway. In addition

the JC Deceaux bike rental scheme is due to be rolled out in the city.

5.3.10 Further works to improve accessibility into the city centre and planned and a number of road works are under way in advance of the planned shopping centre in Michael Street/New Street, including the widening of Brown's Lane to take two way traffic.

Image 5.10: Brown's Lane road improvements

5.3.11 In conclusion, the accessibility of the City has improved dramatically over the past number of years with the completion of the M9 and City Bypass. However with the growth in traffic volumes, vehicular access to the city centre has become more difficult and congested at peak times. It will be necessary to implement further traffic management proposals to deal with these issues. Overall pedestrian accessibility to the city centre is good, with high quality paving, dished curbs and a good quality public realm. Cycling facilities in the City, while improving, need further roll-out to benefit from network effects.

Dungarvan Town Centre

5.3.12 Dungarvan is located on the N25 Cork to Waterford national primary road. It is circa 40km. from Waterford city and 75km to Cork city. To the north of the town, linked by the R672 regional road, the N72 National Secondary Road connects Dungarvan with the Kerry/Limerick region. Waterford's coastal route along the R675 Regional road links into the east of Dungarvan. While it is not located on the rail network it is well connected by frequent bus services to both Cork and Waterford. Following the opening of the N25 bypass, most of the heavy goods vehicles have been taken out of the town.

5.3.13 Dungarvan, through its successful bid in the Smarter Travel area competition, has set out its own blueprint, GoDungarvan, for the integrated and sustainable delivery of a smarter travel future for the Town. This strategy is currently being implemented and is contributing to improvement in the environment for cycling and walking in the town. Dungarvan has also greatly benefited from the development of the Waterford Greenway.

5.3.14 Dungarvan town centre is served by a number of public off street and on-street car parking facilities as well as private car park operated in conjunction with the Dungarvan shopping centre. This latter car park is well connected by pedestrian walkways to the town centre.

5.3.15 While Grattan Square has undergone a series of public realm improvements over recent years, it is still over dominated by the private car, although initiatives associated with assisting local businesses during Covid-19, has also seen a revitalisation and animation of the square, with café-style seating outside local pubs and restaurants, which has been well received.

Images 5.11 & 5.12 : Grattan Square

Tramore Town Centre

5.3.16 Tramore is located only 13 km from Waterford on the R675, which has seen significant improvements over the last decade. Accessibility to Tramore also was enhanced with the completion of the Outer Ring Road around the south of the city. The is a regular bus service between Tramore and Waterford city.

5.3.17 There is ample car parking provided along the promenade and additional parking has been developed in recent years at the entrance to the back strand. There is limited parking along the main shopping streets leading to the upper town, although the new Tesco, Aldi & Lidl stores have plenty of surface car parking. Planned public

realm works will also increase the number of parking spaces within he town centre.

5.4 ENVIRONMENTAL QUALITY / AMENITY

Waterford City Centre

5.4.1 Waterford City has an attractive streetscape with many fine institutional, civic and religious buildings. The majority of buildings including the upper floors are well maintained. Nonetheless there are examples on some of the principle shopping streets of derelict, vacant or poorly maintained buildings which have a negative impact on the visual amenities of the City.

Image 5.13: Cathedral Square

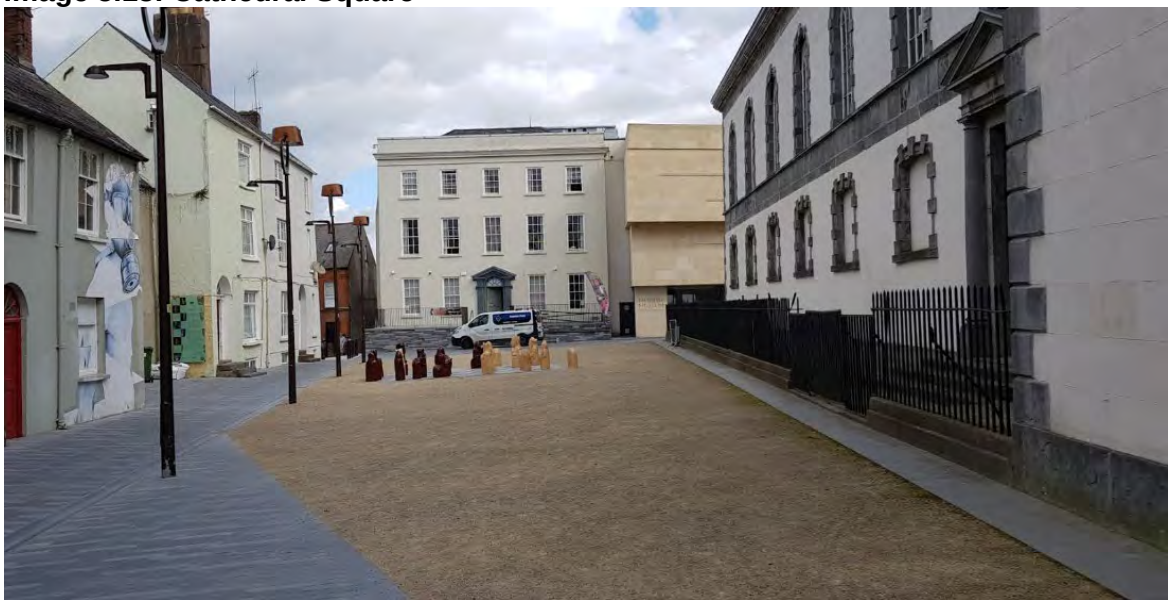


Image 5.14: Broad Street

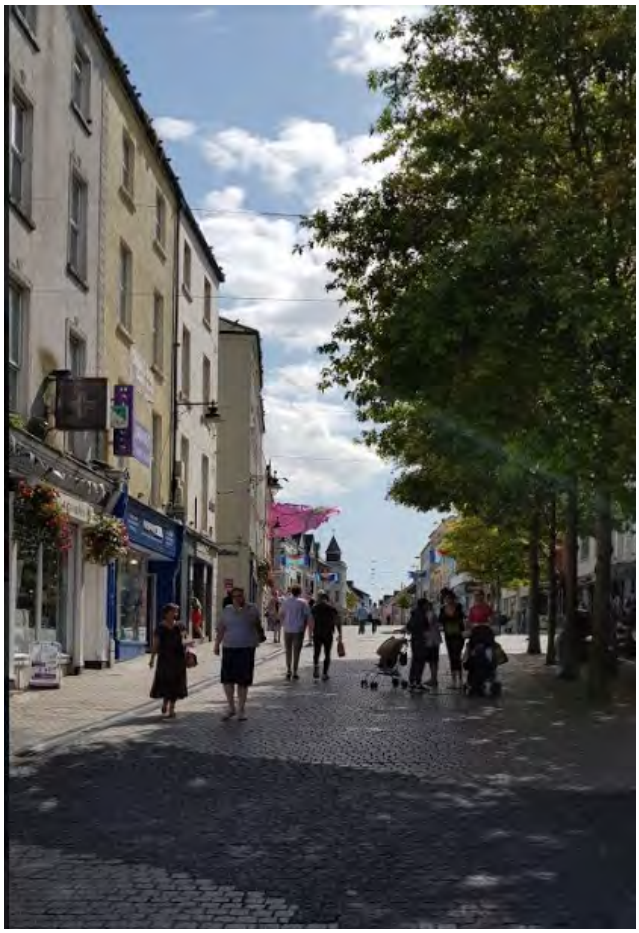


Image 5.15: Henrietta Street

5.4.2 There are also a number of underutilised and poorly maintained back-land areas

that have significant potential for redevelopment.

5.4.3 The principle streets are characterised by narrow plots and buildings, many with Georgian features, of three to four stories. The majority of shop fronts are well presented and some traditional fascia have been preserved. Modern shop fronts are generally respectful of the traditional idiom. There are nonetheless some examples of poor shop front design on the principle streets.

5.4.4 The quality of paving throughout the city is generally of high quality. John Roberts Square has an attractive public seating area. It is a distinctive public space identifying the square as the heart of the city centre. Although constructed over 10 years ago, these environmental works have stood the test of time and have been well maintained.

5.4.5 Nonetheless, there are parts of the City, where paving quality is beginning to decline and would benefit from further upgrades. There are also parts of the City, particularly some of the more peripheral streets and laneways that would benefit from environmental improvement works. The shoppers survey (see chapter 4) also revealed that a significant proportion of respondents (18%) would like to see further improvements to the streetscape.

5.4.6 Litter bins are provided through the city area. Litter management at the time of the survey was reasonably good, and Waterford city has performed well in recent years in IBAL litter surveys. Public lighting appears to be adequate and unattractive wirescape minimised

5.4.7 The environmental quality of some of the more peripheral streets, particularly O' Connell Street declines as one moves away from the prime commercial area. Some of the buildings in these areas have a poor visual appearance and are in need of upgrading. The City however has benefited from past tax designated development with a significant commercial and residential scheme constructed around Railway Square. There have also been new developments on Patrick Street. However the success of these schemes has been varied with vacancy rates an issue in some areas.

5.4.8 The main shopping centre in the City - City Square has a good quality shopping environment with good public amenities including public toilets, telephone and seating areas. The internal environment is clean and well maintained with a good range of retail services and facilities, including a number of national and international multiples. The centre has good footfall and a high rate of activity. The centre is somewhat dated and is a typical enclosed mall. The other shopping centre – Georges Court is also of good quality, although has a less successful shopping environment internally due to the arrangement of the centre on differing levels and a lack of natural lighting. The centre is again dated and a retail model of its time. It does however, have good accessibility with the principle shopping streets and the Quays.

5.4.9 The City Quays are a major feature of Waterford. As already noted the quays are generally well maintained with high levels of occupancy. However, their proximity to the river is not maximised nor are they used to their full potential. Paving lacks uniformity on parts of the quays and the pedestrian environment and directional

signage could be improved.

5.4.10 In recent years the Apple Market area, which has become the centre of nightlife in the city, has undergone extensive upgrading works, including the innovative roofing over of much of the public street. This has created a high quality attractive area for cafes and bars to extend their seating and tables out onto the street.

Image 5.16: The Apple Market

5.4.11 In conclusion the general quality and environmental amenity of the City Centre is good, but there are clearly some areas that need to be addressed, particularly litter management, street cleaning and maintenance. Ongoing improvements to the public realm will be essential to maintain the attractiveness of the City Centre.

Dungarvan Town Centre

5.4.12 Dungarvan has a unique and varied built heritage spanning many centuries. This heritage is a physical reminder of the culture, ideals and history of previous generations. Landmark buildings in the town include the Castle, Abbeyside, St Mary's Churches and public buildings such as the Court House. However, structures such as the quays, the terraces of 19th century houses, the layout of the town square, the vistas, the 19th century ironwork and individual buildings such as the converted warehouses also contribute significantly to the special character of the Town.

5.4.13 Generally the physical environment of the town centre is very good and a number of public realm improvement schemes have been completed in recent years. In particular the works to the quays have made this area of the town very attractive to visitors to the town.

Tramore Town Centre

5.4.14 Tramore has a very attractive natural environment with a high quality beach and

seafront which has attracted visitors to the town for centuries. This natural asset has been protected and enhanced by works undertaken by Waterford Council over the years. Significant public realm improvement works have also been undertaken to the promenade.

5.4.15 The links between the promenade and the upper town and the quality of the pedestrian environment on Strand St./Main Street is in need of improvement, and this will tackled under the URDF grants scheme.

5.5 DIVERSITY OF USES

Waterford City Centre

5.5.1 Waterford City Centre accommodates a wide range of functions, retailers and retail services. A number of independent retailers such as Fitzgeralds and the Waterford Book Centre and Finders Keepers as well as a number of well known national and international multiples such as Tommy Hilfiger, Foot Locker, Clarkes, Shoe Zone, Boots, Trespass, Regatta etc. are represented on the main shopping streets. The representation of Independents is an important factor as it diversifies the retail profile of the main retail streets and differentiates the City from any typical homogenous High Street.

5.5.2 Michael Street and John Street have a different retail environment and character and are generally characterised by more specialist retailers as well as a number of butchers, specialist food shops, cafes and pubs. Michael Street in particular has a unique retail environment with a very high representation of independent food shops including Widgers Butchers, Kiely Butchers, William Greer Cake Shop and the Food Hall and Deli. It was noted that John Street had an over concentration of takeaway and fast food outlets, with 8 such outlets represented here.

5.5.3 A number of financial institutions and service providers are also represented in the City Centre. The quays primarily accommodate restaurant and hospitality services as well as a number of independent lower order convenience and comparison outlets.

5.5.4 The mix of independent, specialist retailers as well as the high street brands provides a diverse and interesting retailing environment in the City. It is noted however, that the traditional retail role of the prime retail pitch around Barronstrand Street, John Roberts Square, Broad Street and Georges Street has been coming under pressure, as lower other retail and other uses are moving into the area. Such uses in the prime retail areas can detract from the retail ambience and discourage higher order retailers from locating in the City centre.

5.5.5 The development of House of Waterford Crystal has also had spin off benefits with a number of new developments taking place in and around the Mall, including the Kite studio. It is clear however that the tourism and leisure sector could be further exploited and there is a need to further diversify and enhance the attractions of the City in order to incentivise tourists to stay longer in the City and not just to visit the House of Waterford Crystal in isolation.

5.5.6 There are three department anchor stores in the City – Debenhams[7], Dunnes Stores and Shaws. However, as noted in the City Centre Report 2009, there is a paucity of medium sized department/variety stores in the City and a number of major high street retailers are not represented including the likes of Marks and Spencer, Zara, Coast, and H & M. It is also noted that many of the high street retailers that are represented occupy a smaller floor space than they would normally. It is stated in the report:

"At the moment the general small scale size of these units suggest that these retailers are perhaps "testing the market" rather than committing whole heartedly to the city centre. Undoubtedly full commitment by such stores to Waterford i.e. occupying larger units would improve the shopping attraction."

5.5.7 The City Square shopping centre has a reasonable level of occupancy, although it has been effected by a number of recent closures since the onset of the Covid pandemic, and has a good representation of multiple retailers and comparison operators. However the smaller Georges Court centre appears to be struggling over recent years, and there are a number of vacant units.

5.5.8 Within the City centre area, convenience shopping is limited to Dunnes Stores in the City Square Centre and the Aldi store at the Glen. There is also a Tesco store at Poleberry. There are a number of smaller independent specialist food retailers and small scale convenience outlets as well as some ethnic food shops.

5.5.9 As noted there is an extant permission for a major new City Centre development in Michael Street. If progressed, this centre has the potential to significantly improve the diversity of retail offer in the City, particularly in attracting higher order comparison multiples. This is discussed further in section 5.6 below.

5.5.10 The City Centre Retail Report 2009 includes a detailed building survey of the City Centre area. This found that middle order comparison retailers dominated in the City Centre at 36% with higher order retailing constituting just 13%. As noted in the study:

"The dominance of middle order is worrying as high order comparison retailing is widely recognised as being the best placed to improve shopper attraction and increase footfall within retail centres Securing additional new high order comparison retailing formats in Waterford City Centre can address the current imbalance, improve City Centre footfall and alter the public perception of Waterford City Centre as a regional Destination Shop"

5.5.11 It is also noted in the City Centre Report that the City does not accommodate any Major Space Users which would typically have a floor space of between 1,000 and 1,999 sq. metres. In this regard, the City has failed to attract significant new retail formats like the International Chain Retailers that require larger floor plates.

5.5.12 Whilst it is noted that a number of restaurants have clustered around High Street and Henrietta Street, there is scope for the development of further food and beverage and restaurant uses particularly on the side streets connecting to the

[7] Debenhams closed during the Covid-19 restriction in March 2020

main retail spine and central square. Restaurants, cafes, and sandwich bars constituted just 8% of the floorspace in the building use survey as detailed in the City Centre Report and these types of uses have the potential to significantly enhance the vitality and viability of the City Centre, particularly in the evening.

5.5.13 The strength of independent retailer representation in the City is a positive factor as this creates a diverse and unique shopping environment. The City Centre Report noted that independent retailers account for 57% of the retail units in the study area which amount to 49% of the total net floor space of the comparison retail units which are less than 500 sq. metres. The retention of these independent operators will be an important factor in ensuring that Waterford retains its character, individuality and diversity. However, there is clearly potential to augment this with the provision of high quality comparison operators and department/variety stores to ensure that expenditure is retained within the City and not lost to other competing centres. Such additional provision would create further potential for commercial synergy and linked trips to the City Centre. Consideration may need to be given to the restriction of certain types of inappropriate uses on the principal prime pitch retail streets to maintain the primary retail role and function of these streets.

Dungarvan Town Centre

5.5.14 As Dungarvan has a relatively wide rural hinterland, the town has a more diversified retail base that many other towns of its scale. The town has a relatively limited number of national stores, but has a good variety of independent shops which have been retained in the core retail area of the town. The main shopping centre has been well integrated into the town centre, and there has been little leakage to the edge of town, other than for bulky goods.

Tramore Town Centre

5.5.15 Given the proximity to Waterford city, Tramore does not possess a developed comparison sector, but does contain a number of niche retailers linked to town's success as a seaside resort.

5.6 MULTIPLE REPRESENTATION

Waterford City Centre

5.6.1 When compared with its peer cities of Limerick and Galway, Waterford is relatively poorly represented in terms of degree of multiple representation in the City, although it does have a limited number of well known brands located on the main shopping streets. Therefore, there is clearly scope for further multiple representation.

5.6.2 As noted in section 5.5, the retailing profile of the City is dominated by middle order comparison retailers. It is detailed in the City Centre report, that this trend is in contrast to other Cities such as Cork and Limerick where higher order retailing is more pronounced. Cork in particular has been able to attract some major high street fashion names with the opening a few years ago of the Opera Lane development off Patrick Street.

5.6.3 The City Centre Report provides detailed analysis of chain store representation in the City. It is noted that in the City Centre, chain retailers account for 43% of the retail units in the study area which in turn amounts to 51% of the total net floor space of comparison retail units less than 500 sq. metres. Regional chain retail outlets account for 3% of the total net floor space of retail units less than 500 sq. metres in the city, while national chain outlets account for 14% and international chain outlets 34%. The report notes, that on first impression, the comparison retail spread seems good, however a more detailed examination reveals that ladies fashion chain retailer representation is under represented compared with other regional cities and confirms a limited representation of high order chain retailers and department/variety stores.

5.6.4 It is also noted that of the well known high street names which do exist in the City, they for the most part occupy smaller floor plates than they do in other shopping centres. They also represent only 43% of the chain fashion retailer representation spread and more typically the lower range of this sector with one or two exceptions. The shoppers and household surveys (chapter 4) also revealed respondents desire for a greater range and choice of shops and in particular more larger department stores/variety stores such as Marks and Spencer.

5.6.5 It is also noted that some high street stores are represented just as concessions. Concession stores only present a limited range of the original retailers product line and it is possible that these retailers would like to locate in stand alone stores if they were available.

5.6.6 In conclusion Waterford City has a diverse retail profile that is primarily dominated by impendent retailers, middle order comparison outlets with a limited representation of the high order multiple retailers and larger department/variety stores. This situation has not changed remarkably since the City Centre Report was undertaken.

5.6.7 As noted in the City Centre Report, the fact that many multiple retailers are not represented, is a major shortcoming that detracts from the attractiveness of the City Centre. It is detailed that as a priority Waterford City Centre needs to be in a position to offer larger floor plates to both existing and prospective retail tenants, particularly multiple retail outlets to increase the City's retail attraction to both consumers and retailers alike.

Dungarvan Town Centre

5.6.8 Dungarvan has a limited range of multiples operating out of the town, and these are limited to Irish companies, including Dunnes, Supervalu, Shaws, Easons, Elvery Sports and Carraig Donn.

Tramore Town Centre

5.6.9 Given the size of the town and its close proximity to Waterford city, Tramore does not have any multiple retailers located within the town other than the supermarket

chains.

5.7 RATES OF VACANCY

Waterford City Centre

5.7.1 Within the defined core retail area of Waterford city a survey was conducted on the uses at ground floor level on the 28th August 2019. The main findings of this survey were:

- In total there were 33 No. vacant units of which, 28 No. were shops, 2 No. were former banks, and a post-office, pub and a café.
- There was a very pronounced concentration of vacant shops in the Michael Street/John Street area (12 No. vacant units) as land use function transitions from core retail to night time entertainment area.
- On the other principal shopping streets, no other street had more than two vacant units
- In addition to the above there are a number of vacant units within the Georges Court and Railway Square Shopping Centres, which are under-performing.
- The only large scale vacant shop units are newly constructed City Square units facing Arundel Square, the vacant former Debenhams department store, and the ground floor of Railway Square.
- The North Quays & the Michael St/New Street sites are subject to significant proposals.

Dungarvan Town Centre

- The core shopping area in Dungarvan is centred around Grattan Square and the
- streets which radiate out from the square, namely O'Connell Street, Parnell (Main) Street, High Street & Mary Street.
- In all there were 14 No. vacant shop units when the town was surveyed on the 4th September 2019.
- Grattan Square itself was fee of any vacancy, as was High Street and the Dungarvan Shopping Centre. The main areas where high levels of vacancy were concentrated was O'Connell Street (8 vacant shops & a vacant site) and St. Mary's Street (4 vacant shops)
- Otherwise the town shows good vitality and prosperity.

Tramore Town Centre

- Tramore does not have a clearly defined core retail area
- However, within the main spine (Main Street/Strand Street) 3 No. vacant shop units were recorded in the survey of the town on the 28th August 2019.
- The only other shopping areas in the town are centred around the Tesco/Lidl/Aldi and Supervalu supermarkets.

5.8 WATERFORD CITY & COUNTY HEALTH CHECK CONCLUSION

5.8.1 Waterford City has an attractive and vibrant city centre. The principal shopping

streets have a pleasant shopping environment with good shop presentation, attractive paving and high quality public realm. John Roberts Square is an attractive civic space and is well utilised by the general public. There is a good range of independent and multiple representation in Waterford which contributes to the overall diversity and uniqueness of the retail profile of the City.

5.8.2 It is noted however, that there are parts of the City that would benefit from rejuvenation and investment. Some of the more peripheral streets are showing signs of dereliction, obsolescence and increasing rates of vacancy. There are a number of large undeveloped and underutilised back land sites that have the potential to contribute in a significant way to the strengthening of the retail core. There is also scope to significantly improve and enhance the amenity function and value of the City quays.

5.8.3 The City has many attractions, most notably its historic and religious legacy in addition to significant attractions such as the House of Waterford Crystal, located on the Mall. The City is also home to major cultural and sporting activities including the Spraoi Festival. There is clearly scope to develop the tourism role and function of the City and to diversify and enhance tourism spend through the development of complementary retail attractions and facilities. A key challenge will be to retain tourists in the City and attract them to the City Centre area. There is clearly scope to develop further specialist tourism retail orientated development within the City Core.

5.8.4 Waterford City is a major transport terminus and has excellent accessibility. As noted however, this ease of access may have the converse effect in facilitating the haemorrhaging of expenditure to other competing centres in the region. There is clearly a need to enhance and augment retail provision, diversity and choice in the City to ensure that Waterford can compete effectively with other centres such as Kilkenny, Cork and Dublin.

5.8.5 The city is well served in terms of car parking with extensive parking provision along the City Quays as well as a significant basement car park in the City Square Development. The provision of parking along the quays is clearly a benefit, however, as noted in the City Centre Report, alternatives such as underground parking in this area need to be investigated. Pedestrian accessibility is generally good within the City, although it has been identified that there is clearly scope to improve the pedestrian environment along the City Quays through the provision of enhanced hard and soft landscaping, traffic calming, improved pedestrian crossing facilities and enhanced directional signage.

5.8.6 While the public realm has seen very significant improvements in recent years, there is scope for further improvement in the City Centre area through the continued investment in the upgrade and maintenance of public pavements and the public realm. Areas such as O'Connell Street in particular have scope for improvements in the pedestrian environment through the limitation of on street car parking and enhanced hard and soft landscaping. As identified, litter management and regular and consistent street cleaning and maintenance have improved significantly and should be maintained. While some improvements have been made in recent years, cycling facilities in the City remain limited. Whilst it understood that the Council intend to invest further in the green routes, enhanced

cycle paths and enhanced pedestrian routes should be a priority.

5.8.7 It is clear from the qualitative study that whilst Waterford has in general a limited array of multiple representation, the City does not have the level of such retailer representation compared to other cities such as Limerick and Cork. Waterford is underperforming in this regard and its retail profile is not commensurate with its status as a Regional City. The city lacks a number of the well known high street fashion retailers. Furthermore, some of these retailers are only represented as concession stores in the department stores and therefore have a much smaller product range and choice than one would normally expect. Some are also operating from a much smaller floor plate than they would normally occupy. There is clearly a need to increase the extent of larger retail floor plates in the city area to cater for the needs of these types of retailers. There is also a need to try and attract further large department/variety stores to the city in order to enhance retail attraction and anchor the city as a major retail destination.

5.8.8 There are concerns however, about the continuing loss of comparison and convenience retailers in the prime retail pitch and the introduction of less desirable retail services and low order retail functions to these areas. In this regard, the Council may need to consider measures to restrict such uses in the prime retail streets such as a special planning control scheme.

5.8.9 Vacancy rates are generally low in the prime retail pitch, although vacancy rates are increasing in the secondary streets and along Michael/John Street as you transition to the night-time economy area. This is a matter that will need ongoing review and monitoring. It is notable however, that there are a number of significant derelict or obsolete sites on the more peripheral retail streets. There is a clear need to incentivise the rejuvenation and redevelopment of these buildings as they clearly detract from the attractiveness and vibrancy of the City. Given their peripheral location, some may not be appropriate for major high street retail development, but could be developed for complementary food and beverage or specialist retail use. In the interim, short term measures such as painting the exterior of such structures could be considered to improve their visual appearance.

5.8.10 Overall Waterford City has a healthy and vibrant City Centre. Nonetheless there is clearly scope for improvement and the City needs to further develop, strengthen and enhance its retail core, attraction and offer in order to compete more effectively with competing centres and to develop a retail profile that is line with its designation as a City of national significance. The City is clearly vulnerable to external pressures and there is a danger that it may decline and its retail function erode unless there is further significant retail investment and development in the next number of years.

5.8.11 Both Dungarvan and Tramore are well presented towns with attractive environments. However due to their geographic locations they have very different roles and functions. Dungarvan is an important market town with an extensive catchment area in the west of the county. Because of this it has a much more developed retail function, and does have a range of comparison outlets in its retail offering. Dungarvan has also been developing well as a tourism destination, with a particular focus on activity holidays, and on food tourism. Dungarvan town centre is both well presented and has good vitality, with relatively little ground floor

vacancy, which is largely limited to one small area.

5.8.12 Tramore, is also well presented and served a very different function as being both a dormitory town for Waterford city, as well as being an important tourist destination in its own right, as a seaside resort. Tramore has a good convenience retail offering, but does not have comparison shopping, as this is provided in the nearby city.

CHAPTER 6

Quantitative Assessment

6.1 INTRODUCTION

6.1.1 This section provides an assessment of the likely capacity in quantitative terms for additional retail floorspace in Waterford City & County. In the strategy, we cover the period from 2016-2026 and 2026 to 2031. In respect of looking beyond 2026,

this enables a longer term look at retail planning and potential in the catchment area which is consistent with the Regional Planning Guidelines. The base year for the purposes of the study is 2016.

6.1.2 It should be noted that a quantitative assessment of this nature can only act as a broad brush indicator of the likely quantum of floorspace that may be required in an area over a given period. It involves making forecasts for future population expenditure, turnover and other factors and as such the study is based on a number of assumptions and therefore can only provide a broad indication of anticipated capacity. Nonetheless, the quantitative section can give a useful overview of the position.

6.1.3 Furthermore, it should be noted that the figures set out in this section are not intended to be prescriptive thresholds. Rather they are the minimum floorspace targets that need to be achieved in order to ensure that the retail function of Waterford City, Dungarvan & Tramore continues to be reinforced and strengthened.

6.1.4 It should be noted that all figures within this assessment are rounded off to the nearest point of decimal. The base year and price year throughout is 2016.

The Approach

6.1.5 The approach taken is a step by step capacity assessment including the following steps:

- Estimate the population at base and design year.
- Estimate of expenditure per capita on convenience, comparison and bulky household goods at the base year and the design year.
- Incorporate projections on inflows and outflows of expenditure to the catchment area based on the results of the shopper's and household surveys undertaken by Demographics Ireland.
- Estimate of total available expenditure in the base year and design year for residents within the Waterford City & County catchment.
- Estimate the likely increase in expenditure available for provision of additional floorspace,
- Estimate the likely average turnover of new floorspace in convenience and comparison goods.
- Estimate the capacity for additional floorspace in Waterford City & County.

6.2 DEFINITION OF STUDY AREA

6.2.1 John Spain Associates have carried out a number of previous retail studies for the former Waterford City Council, most notably the 2011 Waterford City Retail Strategy and the 2017 Updated Quantitative Assessment, to assist with the

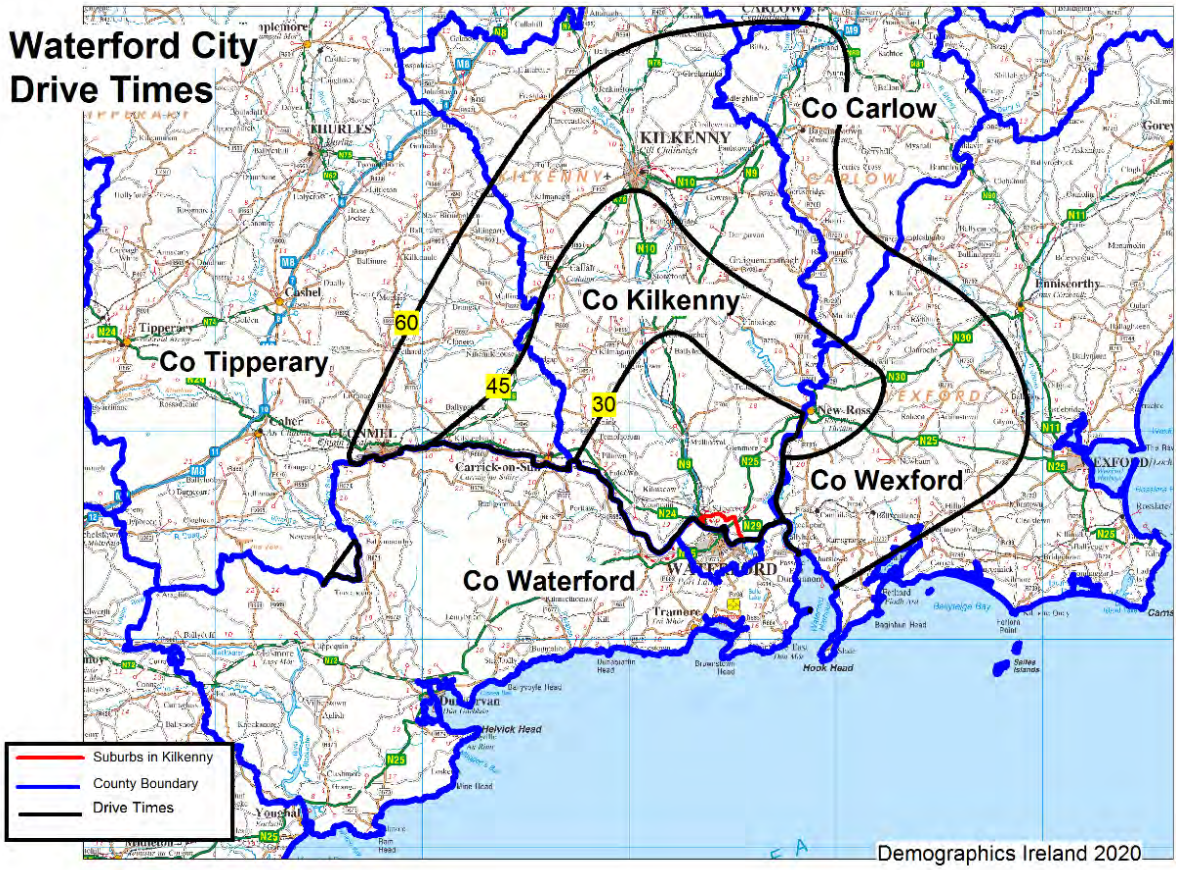
preparation of the North Quays SDZ Planning Scheme. Both these studies used the same catchment area for the city which was the area within the former administrative area of Waterford City Council, together with those areas beyond the city boundary within a 30 minutes drive time, 45 minutes, and 60 minutes drive time respectively, as shown on Map 6.1 below.

6.2.2 For the purposes of this assessment, which is now for the combined Waterford City & County Council area, the study areas consists of the amalgamated Waterford City & County area, plus the city's previously defined catchment area extending into South Kilkenny and parts of Carlow, Tipperary and Wexford counties. namely:

- Waterford City & County Council Administrative Area.
- 0 to 30 minute isochrone from the City Centre excluding the Waterford Council area.
- 30-45 minute isochrone from the city centre, excluding the Waterford Council area.
- 45-60 minute isochrone from the city centre, excluding the Waterford Council area.

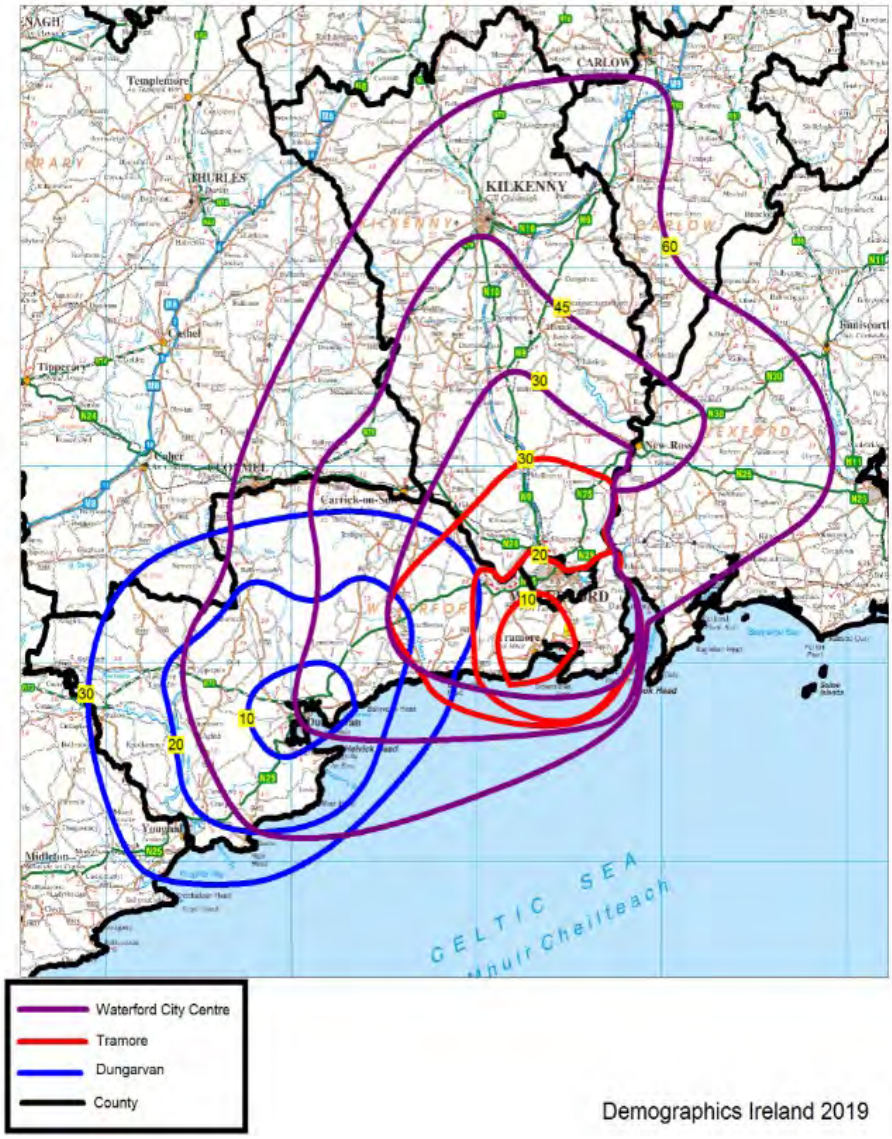
6.2.3 The study area for the purposes of this assessment is identified in Figure 6.1 prepared by Demographics Ireland.

Figure 6.1 Map of Waterford City & County Catchment Area



6.2.4 This approach to the study area has been taken to ensure that there is no double counting arising from overlapping catchment areas between the City & County in Waterford. Furthermore, as shown on Figure 6.2 below identifying the drive times from the three principal urban centres in Waterford (Waterford City, Dungarvan & Tramore), the Dungarvan catchment is almost totally contained within the county, and the Tramore catchment is wholly contained within the Waterford city catchment area. Accordingly, the combined city and county council areas together with the Waterford city catchment area provides a good representation of the total catchment area for Waterford City & County. Furthermore, over the last eight years there has been no significant retail developments either within Waterford City & County or within the neighbouring towns in the hinterland area, which would have any material effect to modify the prevailing catchment area for the city and county.

Figure 6.2 Drive Times for Waterford's Principal Urban Centres



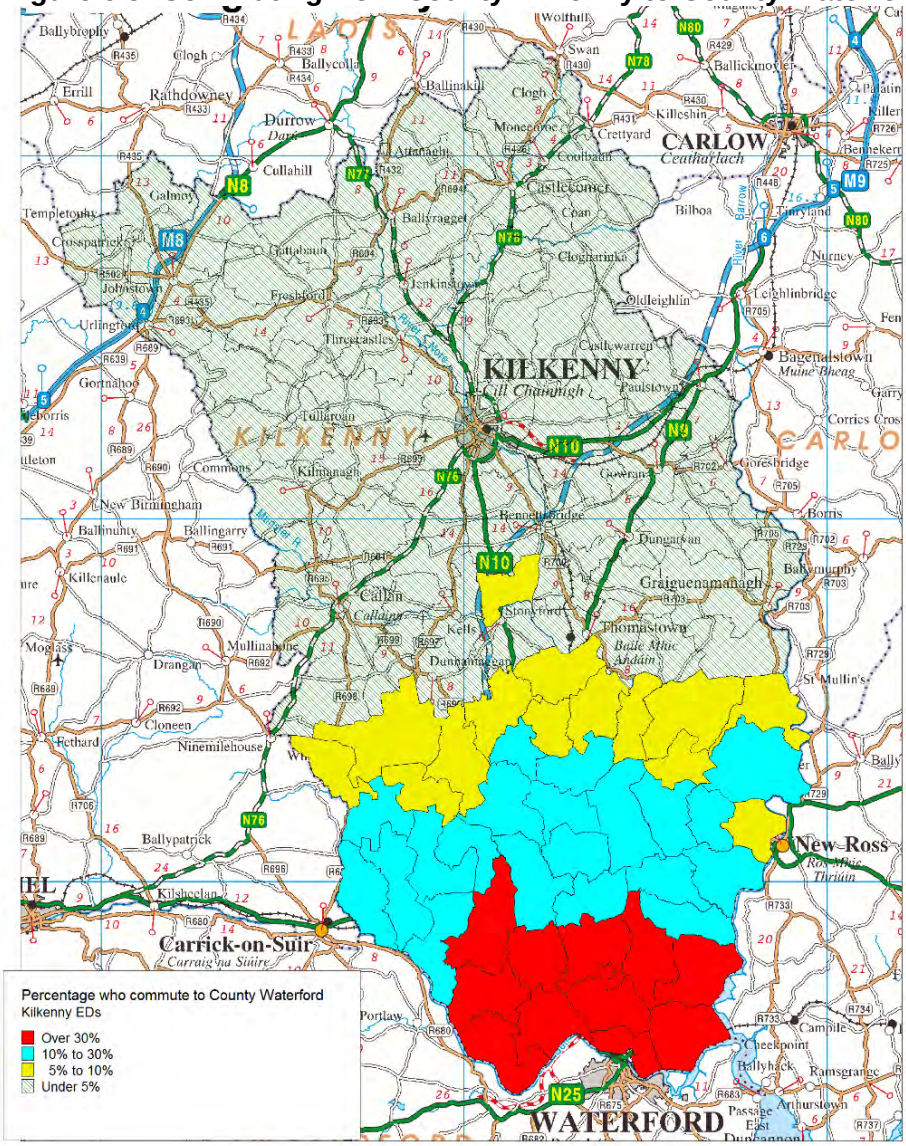
6.2.5 It is acknowledged that the above drive time isochrones are based on the prevailing road network in 2011, when the city's catchment area was previously established, and that since then the road network in the region has considerably improved, most notably with the opening of the M9 motorway. However, to ensure comparability between the 2011 strategy and the current strategy it was decided to retain the same geographic coverage. While other studies, such as the 2020 Rikon[8] report have used a much larger theoretical retail catchment area for Waterford city, stretching well beyond Carlow town based on the distance which can now be driven within one hour, this is unlikely to be a true reflection of Waterford actual current catchment, given what is known on the relatively low levels of retail expenditure in the 45+ minute isochrone in Waterford city.

[8] Waterford 2040 Regional City of Scale: Strategic Investment to 2040, Rikon 2020.

6.2.6 Thus the catchment used in this report could be considered like a weighted catchment compared to the Rikon's more theoretical catchment if Waterford city was fully operating as the regional retail centre for the entire south-east region. In fact it should be noted that the influence of Waterford city as a retail destination on the larger towns beyond this study's defined catchment area, such as Carlow, Castledermot, Wexford, Enniscorthy, Cahir & Youghal, diminishes the further you travel from Waterford city, and are more likely to be influenced by Cork & Dublin.

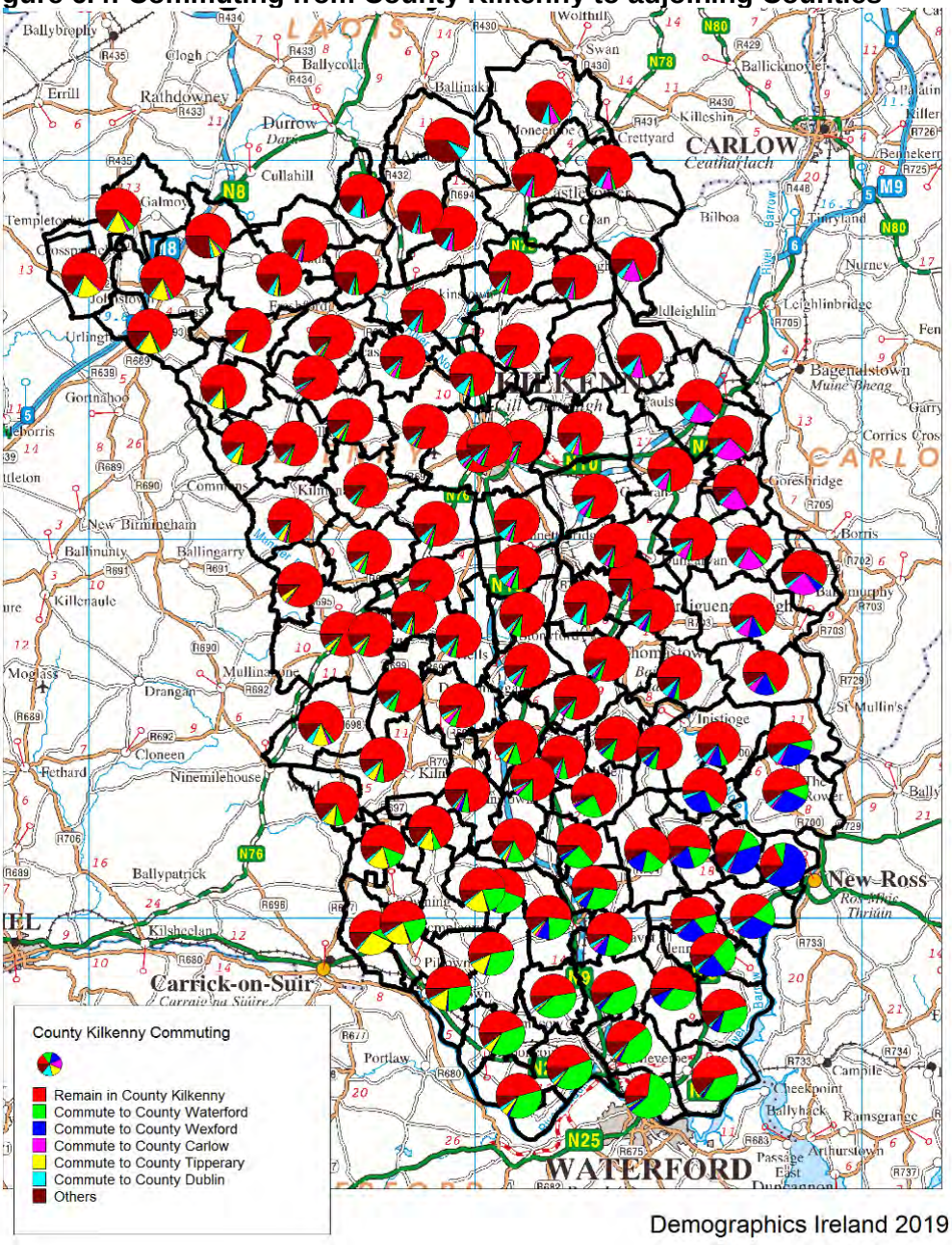
6.2.7 To illustrate this point, it is possible to utilise data on commuting patterns from the 2016 census as a proxy to demonstrate how there is significant drop off in attraction of Waterford to Kilkenny residents as one moves northwards through the county, and this is well illustrated in Figures 6.3 & 6.4 below. Such commuter patterns are likely to be replicated in the other adjoining counties.

Figure 6.3: Commuting from County Kilkenny to County Waterford



Demographics Ireland 2019

Figure 6.4: Commuting from County Kilkenny to adjoining Counties



6.3 POPULATION OF STUDY AREA

6.3.1 The 2016 Census of population identifies a population of 116,176 for Waterford City & County. A drivetime was commissioned from Demographics Ireland as part of the Household Survey undertaken to inform the Retail Strategy.

6.3.2 Table 6.1 below shows the population of the administrative boundary of Waterford City & County, a 0-30 drivetime isochrone from the City excluding the Waterford City & County administrative area, a 0-45 drivetime isochrone and a 45-60 minute isochrone of the City Centre in 2016, 2026 and 2031. The population figures for 2016 are based on the 2016 census results.

6.3.3 The Settlement Strategy included within the Regional Spatial & Economic Strategy (RSES) sets out the target population for the region and for each county the region. It is envisaged that by 2026, the population of Waterford City & County will be 134,000, and 140,500 by 2031.

6.3.4 The population growth rates assumed for the areas outside of the administrative boundary of Waterford City & County are based on those set out within the RSES for the Southern Region. The RSES estimate a growth rate for Cos. Kilkenny, Carlow, Tipperary and Wexford of 10% between 2016 and 2026. An average growth rate of 4% for the 5 years between 2026 and 2031 is applied having regard to the RSES projected average growth rates.

Table 6.1: Population Projections

Year	Waterford City & County	0-30 minute Isochrone (Excl Waterford City & Co.)	30-45 minute isochrone	45-60 minute isochrone	Total
2016 (Actual)	116,176	22,242	52,467	99,188	290,073
2026 (Estimate)	134,000	24,555	57,714	109,107	325,376
2031 (Estimate)	140,500	25,537	60,023	113,471	339,531

Source: CSO, Demographics Ireland & Regional Spatial & Economic Strategy for the Southern Region 2019,

6.4 EXPENDITURE PER CAPITA

6.4.1 The Retail Planning Guidelines Study examines three principal sources of data on retail planning expenditure in Ireland. These are the Annual Services Inquiry, the National Income and Expenditure Accounts and the Household Budget Survey. The survey concludes that the most reliable data source for established baseline expenditure is the Annual Services Inquiry. This is consistent with the source used within the 2003 Waterford City Study and the Waterford City Retail Strategy 2012.

6.4.2 Expenditure per capita is calculated based on the information contained within the Annual Services Inquiry (ASI) published by the Central Statistics Office. The ASI is listed as the preferred source for expenditure per capita listed in the 1999 Roger Tym and Partners and Jonathan Blackwell and Associates report on the Retail Planning Guidelines and is consistent with the source used within 2003 Waterford City Study and Waterford City Retail Strategy 2011. This source is therefore used for the purposes of this capacity assessment.

6.4.3 The CSO have provided information on the most appropriate categories to consider when making estimates on expenditure per capita. The relevant categories include:

1. Retail sale in non-specialised stores (471)
2. Retail sale of food, beverages and tobacco in specialised stores (472)
3. Retail sale of information and communication equipment in specialised stores (474)
4. Retail sale of other household equipment in specialised stores (475)
5. Retail sale of cultural and recreation goods in specialised stores (476)
6. Retail sale of other goods in specialised stores (477)
7. Retail sale via stalls and markets (478)

6.4.4 In accordance with the guidance set out within the Roger Tym and Partners / Jonathan Blackwell & Associates background study on the Retail Planning Guidelines, Categories 1 and 2 are classified as convenience goods expenditure. Categories 3-7 are classified as comparison expenditure for the purposes of this study. However, there is the exception of department stores which are classified under Item 1. The CSO have provided further information on the breakdown of the retail sale in non – specialised stores category and from this breakdown it is apparent that sales in department stores account for approximately 12% of the amalgam of convenience and department store category in 2016 and 2017, having risen from 7.3% in 2010. The CSO have provided estimates for each year from 2010 to 2017 and these have been used for calculating the changing expenditure estimates. The turnover attributed to expenditure in department stores is classified as comparison expenditure for the purposes of this study.

6.5 EXPENDITURE ESTIMATES

6.5.1 Based on the 2016 Annual Service Inquiry we have estimated that the total expenditure per capita in 2016 on convenience goods was €3,558 and €4,045 on comparison goods. These expenditure per capita figures are in fact lower than those recorded in 2010

6.5.2 Set out in Table 6.0 below is an estimation of turnover per capita for convenience and comparison for each year 2010 to 2017 based on the data supplied by the CSO.

Table 6.0: Expenditure per capita 2010 to 2017

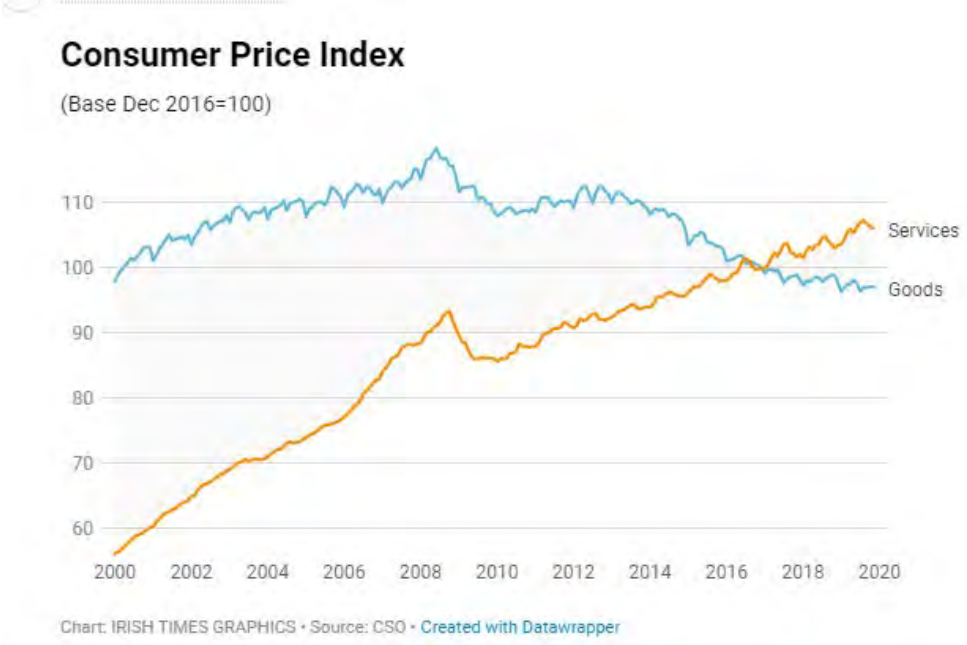
	Convenience	Comparison
2010	€3,593	€4,206
2011	€3,710	€3,832
2012	€3,511	€3,725

2013	€3,564	€4,169
2014	€3,678	€3,890
2015	€3,220	€3,613
2016	€3,558	€4,045
2017	€3,360	€4,043

Source: Annual Service Inquiry 2010-2017, CSO

6.5.3 These figures illustrate how convenience and comparison expenditure per capita has fluctuated over the last decade. Of note is the fact that, notwithstanding the growth in retail sales in recent years, as recorded in the Retail Sales Index, this is being cancelled out by negative inflation in the costs of goods, as shown on Figure 6.3 below.

Figure 6.3: Changes in Consumer Price Index 2000-2020



6.5.4 In light of these countervailing trends we have had to take a more caution approach to projecting forward estimates of expenditure per capita.

Convenience Expenditure Forecast

6.5.5 Taking a conservative approach we have applied a 0% growth per annum between 2016 and 2031.

Comparison Expenditure Forecast

6.5.6 Expenditure growth on comparison goods has been generally been higher than expenditure growth on convenience goods over time. This is because most household's requirements in respect of convenience products have been largely

satisfied and most additional expenditure has gone into products such as clothing, footwear, household goods, electrical goods, carpets, furniture and so on.

6.5.7 However, as a result of the more up to date CSO turnover data supplied through the ASI a relatively cautious approach is recommended for projecting forward turnover on comparison goods. We have therefore used a conservative long term average of 2.0% per annum between 2016 and 2031. This is illustrated in Table 6.2.

Table 6.2: Expenditure per capita

	Convenience	Comparison
2016	€3,558	€4,045
2026	€3,558	€4,932
2031	€3,558	€5,451

Assumption: Convenience Goods Expenditure 0% growth rate annum from 2016 to 2031; Comparison Goods Expenditure 2.0% growth rate per annum from 2016 to 2031.

6.6 TOTAL AVAILABLE EXPENDITURE

6.6.1 The total available expenditure is set out in Tables 6.3 and 6.4 below. This is calculated by multiplying the population by the expenditure per capita for each category for each year. For the convenience capacity assessment we have used a 0-30 minute isochrone catchment having regard to the results of the household and shopper's survey set out in Chapter 4 of the 2011 strategy. As relatively little new floorspace has been provided in Waterford City & County or is catchment area since 2011, and given the similarities between the 2011 and 2019 household survey findings we have maintained the same percentages for inflows and outflow as used in 2011 and 2017 quantitative analysis. The survey results illustrated an inflow of 8% of convenience expenditure from the 30-45 minute drivetime isochrone for convenience goods, with no inflow from the 45-60 minute drivetime isochrone for convenience goods. In 2016, we estimate the total available for convenience expenditure is €413m within the City & County and €79m within the 0-30 minute drive time isochrone of the City Centre (excluding the Waterford City & County area). The total available expenditure for convenience goods is identified within Table 6.3 at c. €679 million in 2016, €769 million in 2026, and €853 million in 2031.

6.6.2 In relation to expenditure on internet an adjustment for existing levels of internet sales has already been made to the Annual Services Inquiry expenditure per capita figures in the omission of the category of "retail sales not in stores, stalls or markets". This category includes internet shopping by retail stores that have a physical presence in Ireland. While existing trends as evidenced from the household survey and the Annual Services Inquiry are low at 3.3 % (Source ASI

2017), it is likely that this format of retailing will continue to grow over the lifetime of the retail strategy.

6.6.3 On-line sales is an emerging trend and is likely to continue to become a more popular form of retailing as technologies improve and retailers embrace and promote this retail format. In this regard, it is recommended that expenditure data is regularly reviewed and adjusted over the life time of the study to account for any notable increase documented by the CSO (RSI in 2019 for first time now includes data on on-line sales) or other verifiable source in terms of internet sales expenditure and that the implications for retail floorspace requirements are monitored. It is recognised that there may not be a direct link between increase in internet retailing and retailers floorspace requirements.

Table 6.3: Total Available Convenience Expenditure

Year	Waterford City & County	0-30 minute Isochrone (Excl Waterford City & Co.)	30-45 minute Isochrone	Total
2016	€413,354,208	€79,137,036	€186,677,586	€679,168,830
2026	€476,772,000	€87,366,690	€205,346,412	€769,485,102
2031	€499,899,000	€105,010,949	€247,711,962	€852,621,911

Source: Tables 6.1 and 6.2

6.6.4 Table 6.4 below sets out the total available comparison expenditure within Waterford City & County, a 0-30 minute isochrone excluding Waterford City & County and 30-45 minute isochrone. These isochrones are included having regard to the results of the household survey which illustrates an inflow of 90% from the 0-30 minute drivetime isochrones, 52% from the 30-45 minute isochrones and 8% from the 45-60 minute isochrone. In 2016 it is estimated the total available for comparison expenditure is €470m within Waterford City & County and €90m within the 0-30 minute drive time isochrone of the City Centre (excluding the City & County area). By 2031, assuming an increase of the City & County population to 140,500 the total available comparison expenditure is €766m within the City & County.

Table 6.4: Total Available Comparison Expenditure (including Bulky Household Goods)

	Waterford City & County	0-30 minute Isochrone Excl Waterford City & Co.	30-45 minute Isochrone	45-60 minute Isochrone	Total
2016	€469,931,920	€89,968,890	€212,229,015	€401,215,460	€1,173,345,285
2026	€660,888,000	€121,105,260	€284,645,448	€538,115,724	€1,604,754,432
2031	€765,865,500	€160,881,024	€379,504,751	€717,447,486	€2,023698,761

Source: Tables 6.1 and 6.2

6.6.5 Table 6.4 sets out the total available comparison expenditure available within the administrative boundary of Waterford City & County Council and a 0-30 and 30 to 45 minute isochrone from the City. In considering the above expenditure levels it is important to note that significantly different levels of turnover will apply to town centre comparison goods such as clothing and footwear and smaller household durables than would apply to bulky household goods sold in retail warehouses. Retail warehouses have a distinct function and are generally located outside of the City/Town Centre. It is necessary to establish the expenditure potentially available to City & County comparison floorspace. In this regard it is considered important to split between expenditure available for bulky warehouse goods and comparison goods within the catchment area. Having regard to the Household Budget Survey and experience elsewhere in this respect, it is estimated that approximately 20% of comparison expenditure will be accounted for by bulky household goods in retail warehouse type premises. This is the same figure as used in the 2012 city retail strategy and the 2017 update. While there has been some blurring of the demarcation between general comparison and bulking goods sold in establishments, this percentage split is still considered appropriate.

6.6.6 Estimates for expenditure on pure comparison floorspace, and on bulky household goods are set out in Tables 6.5 and 6.6 below.

Table 6.5: Total Available Expenditure on Comparison Floorspace (excluding bulky household goods)

	Waterford City & Co.	0-30 minute Isochrone excl Waterford City & Co.	30-45 Minute Isochrone	45-60 minute Isochrone	Total
2016	€375,945,536	€71,975,112	€169,783,212	€320,972,368	€938,676,228
2026	€528,710,400	€96,884,208	€227,716,358	€430,492,579	€1,283,803,546
2031	€612,692,400	€128,704,819	€303,603,801	€573,957,989	€1,618,959,009

Source: Table 6.5 above, Assumption 80% of total set out in Table 6.4

Table 6.6 Total Available Bulky Household Goods Expenditure					
	Waterford City & Co.	0-30 minute Isochrone excl Waterford City & Co.	30-45 Minute Isochrone	45-60 minute Isochrone	Total
2016	€93,986,384	€17,993,778	€42,445,803	€80,243,092	€234,669,057
2026	€132,177,600	€24,221,052	€56,929,090	€107,623,145	€320,950,886
2031	€153,173,100	€32,176,205	€75,900,950	€143,489,497	€404,739,752

Source: Table 6.6 above, Assumption 20% of total set out in Table 6.5

6.7 ADJUSTMENTS TO AVAILABLE EXPENDITURE

6.6.7 Some adjustments are also required to the capacity figures outlined in Tables 6.4, 6.5 and 6.6 above to take into account the levels of trade draw and leakage of expenditure from the catchment area. Assumptions on both market share and trade draw are informed by the household and shoppers surveys undertaken by Demographics Ireland, the results of which are summarised in Chapter 4 of the Retail Strategy.

Convenience:

6.6.8 The survey establishes that approximately 95% of convenience goods expenditure in Waterford City & County is retained within the City & County, and the City attracts approximately 58% of convenience goods expenditure from the 0-30 minute isochrone from the City. The household survey also identifies an inflow of 8% of expenditure on convenience goods from the 30-45 minute isochrone. It is envisaged that this level expenditure inflows and retention will continue throughout the lifetime of the retail strategy and up until 2031.

Table 6.7: Total Available Convenience Expenditure to Waterford City & County				
Year	Waterford City & County	0-30 minute Isochrone excl Waterford City & County	30-45 minute isochrone	Total Available Expenditure
2016	€392,686,498	€45,899,481	€14,934,207	€453,520,185
2026	€452,933,400	€50,672,680	€16,427,713	€520,033,793
2031	€474,904,050	€60,906,350	€19,816,957	€555,627,357

Sources: Tables 6.3, 6.5 and 6.6

Comparison:

6.6.9 The household survey establishes that approximately 92% of comparison goods expenditure in Waterford City & County is retained by the County and attracts a further 90% of comparison expenditure from the 0-30 minute drivetime isochrone and 52% from the 30-45 minute isochrone. The survey identifies an inflow of 8% of comparison expenditure from the 45-60 minute drivetime. Two scenarios are assumed in estimating the amount of expenditure available within the study area for the purposes of this assessment. Scenario 1, the low growth scenario assumes that the retention and inflow of expenditure to Waterford City & County will remain at current levels over the lifetime of the retail strategy and up until 2040.

6.6.10 Scenario 2 estimates that the level of trade draw from the 0-30, 30-45 and 45-60 minute isochrones and retention of comparison expenditure within the City & County will increase within the timeframe of the Retail Strategy in line with improvements to the retail offer and trade draw of the City & County. For the purposes of this assessment it is assumed that by 2026 the City Centre area will retain 94% of comparison goods expenditure within the City and this is envisaged to grow to 96% by 2031. Trade draw from the 0-30 minute drivetime isochrone is envisaged to grow to 94% by 2026 and 96% by 2031. Inflows from the 30-45 drivetime isochrone are estimated to grow to 55% by 2026 and 60% by 2031. Inflows from the 45-60 minute drivetime isochrone are anticipated to remain at 8%. Based on these projections the total available comparison expenditure for both Scenario 1 and 2 are set out in 6.8 below.

Table 6.8: Total Available Comparison Expenditure to Waterford City & County (excluding bulky household goods)

	Waterford City & Co.	0-30 Minute Isochrone	30 to 45 min isochrone	45 to 60 min isochrone	Total Available Expenditure
SCENARIO 1: Base Year Inflows to be Retained to 2026					
2016	€345,869,893	€64,777,601	€88,287,270	€25,677,789	€524,612,554
2026	€486,413,568	€87,195,787	€118,412,506	€34,439,406	€726,461,268
2031	€563,677,008	€115,834,337	€157,873,976	€45,916,639	€883,301,961
SCENARIO 2: Increase in Inflows & Trade Retention in 2026 and 2031					
2016	€353,388,804	€67,656,605	€93,380,767	€25,677,789	€540,103,965
2026	€507,561,984	€93,008,840	€136,629,815	€34,439,406	€771,640,045
2031	€588,184,704	€123,556,626	€182,162,280	€45,916,639	€939,820,250

Bulky Household

6.6.11 The household survey establishes that approximately 69.5% of bulky goods expenditure in Waterford City & County is retained by the County and the City attracts a further 50% from the 0-30 minute isochrone, 9% from the 30-45 minute isochrone and 8% from the 45-60 minute isochrone. As with comparison goods, two alternative growth scenarios are assumed for bulky goods expenditure over the lifetime of the retail strategy. Scenario 1 assumes that existing retention and inflows of bulky goods expenditure will remain at current levels throughout the lifetime of the strategy. Scenario 2 assumes that bulky goods expenditure retention levels will increase to 70% by 2026 and 72% by 2031. It is also assumed that inflows of expenditure from the 0-30 minute isochrone will increase to 52% by 2026 and 55% by 2031. Inflows of expenditure from the 30-45 and 45-60 minute isochrones are anticipated to remain at current levels. The total available bulky goods expenditure under both scenarios are set out in Table 6.9 below.

Table 6.9: Total Available Bulky Goods Expenditure to Waterford City & County

	Waterford City & Co.	0-30 Minute Isochrone	30 to 45 min isochrone	45 to 60 minute isochrone	Total Available Expenditure
SCENARIO 1: Base Year Inflows to be Retained to 2026					
2016	€65,320,537	€8,996,889	€3,820,122	€6,419,447	€84,556,996
2026	€91,863,432	€12,110,526	€5,123,618	€8,609,852	€117,707,428
2031	€106,455,305	€16,088,102	€6,831,086	€11,479,160	€140,853,652
SCENARIO 2: Increase in Inflows & Trade Retention in 2026 and 2031					
2016	€65,790,469	€9,356,765	€3,820,122	€6,419,447	€85,386,803
2026	€95,167,872	€12,594,947	€5,123,618	€8,609,852	€121,496,289
2031	€100,284,632	€16,731,626	€6,831,086	€11,479,160	€145,326,504

6.7 EXISTING RETAIL FLOORSPACE IN CATCHMENT AREA

6.7.1 The existing retail floorspace within the catchment area is based on figures provided by Waterford City & County Council. Since the 2011 retail strategy, Waterford City and County Council issued a notification of decision to grant planning permission (Reg. Ref. 16/175) for a shopping centre development at St. Stephens Street, New Street and John's Lane, Waterford which includes a retail gross floor area of 10,030 sq. m (9,616 sq.m net lettable comparison floor area) including 1 anchor store and 5 Medium Sized Units and 10 other units. Based on a reasonable market assumption that 30% of the net lettable retail area of 9,616 sq. m. will be occupied for convenience retailing, it is estimated that this

development will provide approximately 6,731 sq. m. of net comparison floorspace. Following a number of third party appeals, An Bord Pleanála granted permission for the development on the 20th of February 2017. For the purposes of this assessment this permitted floorspace has not been included in the capacity assessment as it has not been constructed and is therefore considered pipeline floorspace. In addition, a planning application has recently been lodged for a very large mixed use development on the North Quays. Again while a figure has been set aside to account for this planned additional floorspace, it has not been include the total existing retail floorspace with the City & County.

Table 6.10: Existing Retail Floorspace within Waterford City & County

	Convenience	Comparison	Bulky	Total
	sq.m.	sq.m.	sq.m.	sq.m.
Existing Floorspace Waterford City	34,624	38,480	55,993	147,956
Existing Floorspace Dungarvan	10,092	10,686	17,634	38,412
Existing Floorspace Tramore	10,108	2,235	2,202	14,545
Existing Floorspace in other towns in county	4,256	2,440	-	6,696
Total Floorspace City & Co.	59,080	53,841	75,829	188,750

Source: Waterford City and County Council 2019

6.8 TURNOVER OF EXISTING FLOORSPACE

6.8.1 It is possible to derive the turnover of existing floorspace within the catchment area by multiplying the floorspace in each category by average turnover. A turnover of €9,225 per sq. m. is assumed for existing convenience floorspace within the catchment area in 2016 and €6,150 per sq. m. for comparison floorspace. An average turnover of €2,050 per sq. m. is assumed for bulky goods in 2016 prices. The figures are based on published retail industry data and have regard to the average turnover per sq.m. calculations established in the Retail Planning Guidelines Study 1999 (Tym and Blackwell)[9]. They reflect the average turnover levels retailers will require to sustain a healthy level of activity. We have applied a constant figure over the period 2016 – 2031

[9] There are no published data on turnover per square meter of retail floor space for Irish retailers. These figures used here are based on turnover figures from annual reports of UK retailers, particularly those who have Irish operations, and from the UK Data House Retail Rankings, which have been adapted for the Irish market place and which we have used in other retail strategies in Ireland. We have taken an average figure between multiples and smaller shops and independents.

Table 6.11 Turnover per sq.m. of Existing Retail Floorspace						
	2016	2026	2031			
Convenience	€9,225	€9,225	€9,225			
Comparison	€6,150	€6,150	€6,150			
Bulky	€2,050	€2,050	€2,050			

6.8.2 These figures show the average turnover per sq. metre of existing floor space overall in Waterford City & County. They disguise significant differences in turnover for different shops. In general, multiple branches of national and international multiple shops are located within purpose built shopping centres or other prime locations. Prime town centre shop units will have substantially higher turnover per square metre than shops which are less well located or situated in older inefficient premises and are operated as independents. In particular, it is likely that smaller units have substantially lower turnover per sq. metre than these averages whilst the largest supermarket operators have substantially higher turnover rates per sq. metre.

6.8.3 The turnover of existing retail floorspace within the City & County in 2026 and 2031 is obtained by multiplying the existing floorspace estimates set out in Table 6.10 by the turnover per sq. m. estimates set out in Table 6.11. This is illustrated in Table 6.12 below.

Table 6.12: Turnover of Existing Retail Floorspace			
	2016	2026	2031
Convenience	€545,013,000	€545,013,000	€545,013,000
Comparison	€331,122,150	€331,122,150	€331,122,150
Bulky	€155,449,450	€155,449,450	€155,449,450

Source: Tables 6.10 and 6.11

6.8.4 The residual surplus for additional retail floorspace within the City & County is obtained by subtracting the turnover of existing convenience, comparison and bulky goods expenditure as set out in Table 6.12 by the total available expenditure set out in tables 6.7, 6.8 and 6.9. Tables 6.13 a and b below set out the available expenditure under Scenario 1 and 2.

Table 6.13a: Scenario 1 Available Expenditure for Additional Retail Floorspace in Waterford City & County			
Year	Available Expenditure	Turnover of Existing Floorspace	Residual Surplus
Convenience			
2016	€453,520,185	€545,013,000	-€91,492,815
2026	€520,033,793	€545,013,000	-€24,979,207
2031	€555,627,357	€545,013,000	€10,614,357

Comparison			
2016	€524,612,554	€331,122,150	€190,490,404
2026	€726,461,268	€331,122,150	€395,339,118
2031	€883,301,961	€331,122,150	€552,179,811
Bulky			
2016	€90,461,625	€155,449,450	-€70,892,454
2026	€126,163,795	€155,449,450	-€37,742,022
2031	€150,274,513	€155,449,450	-€14,595,798

Source: Tables 6.12, 6.6, 6.8 & 6.9

Table 6.13b: Available Expenditure for Additional Retail Floorspace in Waterford City & County Scenario 2

Year	Available Expenditure	Turnover of Existing Floorspace	Residual Surplus
Convenience			
2016	€453,520,185	€545,013,000	-€91,492,815
2026	€520,033,793	€545,013,000	-€24,979,207
2031	€555,627,357	€545,013,000	€10,614,357
Comparison			
2016	€540,103,965	€331,122,150	€208,981,815
2026	€771,640,045	€331,122,150	€440,517,895
2031	€939,820,250	€331,122,150	€608,698,100
Bulky			
2016	€91,321,433	€155,449,450	-€70,062,647
2026	€129,952,656	€155,449,450	-€33,953,151
2031	€154,747,364	€155,449,450	-€10,122,946

Source: Tables 6.12, 6.6, 6.8 & 6.9

6.9 FLOORSPACE CAPACITY

6.9.1 In order to calculate the requirements for additional retail floorspace within the catchment area the turnover per sq. m. of future retail floorspace should be divided by the available expenditure figures set out in Table 6.13. For the purposes of this assessment a turnover per sq. m. of €12,300 is assumed for future convenience floorspace, €7,175 for comparison retail floorspace and €2,562 for bulky goods floorspace in 2016 prices[10]. The figures for expenditure have been maintained for the full period 2016 to 2031 as illustrated in Table 6.14 below.

Table 6.14 Turnover of Future Retail Floorspace 2016, 2026 and 2031

	2016	2026	2031
Convenience	€12,300	€12,300	€12,300
Comparison	€7,175	€7,175	€7,175
Comparison Bulky	€2,562	€2,562	€2,562

6.9.2 The future floorspace requirements for additional convenience, comparison and bulky goods floorspace within the catchment is illustrated in Table 6.15.

Table 6.15 Additional Floorspace Requirements for Waterford City & County

	2016	2026	2031		
Convenience sq.m.	-7,438	-2,031	863		
Comparison sq.m.	26,967	55,100	76,959		
Bulky Goods sq.m.	-27,671	-14,731	-5,697		
SCENARIO 2: Increase in Inflows & Trade Retention in 2026 and 2031					
Convenience sq.m.	-7,438	-2,031	863		
Comparison sq.m.	29,126	61,396	84,836		
Bulky Goods sq.m.	-27,347	-13,253	-3,951		

Source: Tables 6.14, 6.13a & 6.13b

6.9.3 It can be seen from Table 6.15 that there is very little capacity for additional convenience floor space within the City & County area in the short term and even by 2031 the capacity is less than 1,000 sq.m. Although the potential for additional net convenience floorspace currently would appear limited, this should be viewed within the context of the extent of convenience floorspace which has been

[10] See footnote 3. Generally newer retail outlets have higher turnover per sq.m. than older units.

implemented in recent years. Notwithstanding the low projected figures, there is likely to be a need for further modest neighbourhood scale convenience development in the short to medium term. Such additional development would be appropriate in the designated neighbourhood centres or zoned commercial lands in existing neighbourhood/district & town centres. Additional modest scale convenience floorspace (i.e. less than 1,500 sq.m. net) within existing designated district/neighbourhood & town centres would be appropriate in order to improve the range of retail offer and improve competition in the market.

6.9.4 The requirement for additional comparison floorspace within the City & County is significant over the period to 2026 and beyond to 2031. Table 6.15 indicates a requirement for an additional 55,100 sq. m. of comparison floorspace under Scenario 1 by 2026 and this increases to 61,400 sq. m. under Scenario 2. Of this approximately 30,000 sq.m. will be absorbed by the proposed mixed use development in the North Quays, and a further circa. 9,500 sq.m. in Michael Street shopping centre.

6.9.5 Table 6.15 above illustrates that there is unlikely to be any significant requirement for additional retail warehouse floorspace within the catchment up to 2031. This is not surprising having regard to the extent of this format of retail floorspace developed within both Waterford City, Dungarvan and Tramore over the last two decades.

6.9.6 It should be noted that the floorspace capacity figures outlined in Table 6.15 above should not be considered as upper limits, merely as indicative of the scale of new floorspace required to meet the needs of existing and future population and expenditure in the City & County. Additional new floorspace may be proposed and this could replace some existing outdated or poorly located retail floorspace. These figures should be seen as minimum rather than maximums. The key consideration is the location of new floorspace. The quantum only becomes a critical consideration where new convenience and comparison floorspace is proposed outside of the defined retail core of the city and the town centres of Dungarvan & Tramore and the issue of likely impact on the city/town centre as a whole arise.

CHAPTER 7

Policies, Action and Vision for the Future

7.1 INTRODUCTION

7.1.1 The purpose of this chapter is to set out key policies and actions in terms of the future development of retail facilities in Waterford City & County and to establish a clear vision for the future development of the City, Dungarvan & Tramore in retailing terms in accordance with the Core and Settlement Strategies.

7.1.2 The chapter examines the following issues:

- Retail Hierarchy
- Definition of Core Retail Area

- Distribution of Floorspace Requirements
- Specific Objectives for City & Town Centre Improvements
- Specific Objectives for District/Suburban Centres, Neighbourhood Centres, Retail Warehousing Development and Local Shops.
- Overall Conclusions
- Vision for the Future

7.2 RETAIL HIERARCHY

7.2.1 The principle of a hierarchy of retail centres informs the consideration of zoning for retail developments in development plans and is an essential component of a retail strategy.

7.2.2 The national retail hierarchy is set out in the Retail Planning Guidelines. It reflects both the settlement structure of the State and low residential densities in rural areas.

7.2.3 The guidelines identify four tiers of shopping provision within the national hierarchy. Waterford City is identified as a second tier centre in the context of the national hierarchy. It is identified that Waterford City, along with Cork, Limerick and Galway provide a range of high-order comparison shopping which is largely unmatched elsewhere. In this regard, the primacy of the City should be protected and promoted to ensure it retains its position in the national hierarchy and can act as a driver for regional growth and development. This needs to be acknowledged and recognised in the development plan policies covering the City & County and in the retail strategy.

The Role of the Development Plan in Defining the Retail Hierarchy

7.2.4 The formulation of the retail strategy for City & County should ensure that policies and proposals are consistent with the Retail Planning Guidelines but it should also be forward looking and provide a planning framework in assessing Waterford City & County within the national hierarchy both now and in the future.

7.2.5 The Development Plan should set out the hierarchy of centres and a strategy for the location of retail development. In particular, the guidelines state that development plans should indicate a range of centres, from city centre through to town centre, district/suburban centre to local centres and village centres where investment in new retail and other development will be promoted, and existing provision enhanced.

The Existing Retail Hierarchy of Waterford City & County

7.2.6 A key part of the Retail Strategy is to confirm the retail hierarchy. In determining the hierarchy the following principles were considered:

- The need to protect and enhance the importance of Waterford City as the principal urban centre in the county and region and also to protect the important more localised functions of the existing and planned district and neighbourhood centres in the suburbs of the City.
- The distribution of future retail floor space relates to the identified existing and future retail hierarchy in the City and County and should be appropriate to the scale and character of the centre.
- The distribution of future retail floor space should be linked to the future distribution of population growth.
- The principles of sustainability should be adhered to and future retailing should be concentrated as far as practicable in centres that are served by public transport.
- The need to facilitate competitiveness and innovation in the retail industry.

7.2.7 The current Retail Hierarchy within Waterford City is respectively:

BOX 7.1: WATERFORD CITY RETAIL HIERARCHY

First Tier- Waterford City Centre

The City Centre would be considered a first tier centre.

Second Tier – District Centres

The identified second tier District Centres are**:**

- Ardkeen/Farronshoneen
- Waterford Shopping Centre, Lisduggan
- Kilbarry, Tramore Road
- Ferrybank District Centre Abbeylands (in the administrative area of Kilkenny County Council)

Third Tier – **Neighbourhood Centres**.

The identified Neighbourhood Centres are:

- Cleaboy
- Kilcohan
- Ballinakill
- Ross Abbey SC, Rathculliheen, Ferrybank
- Ballybeg
- Hypermarket Morgan Street
- Carrickpherish
- Proposed Neighbourhood Centre at Knockboy

Fourth Tier - Local Shops.

7.2.8 The current Retail Hierarchy within the remainder of Waterford County is respectively:

County Retail Hierarchy	
Level/Retail Function	**Centre**
Level 1: County Town Centre	Dungarvan
Level 2: Sub County Town Centre	Tramore
Tier 1 Level 3: Town Centre	Dunmore East Lismore Cappoquin
Tier 2 Level 3: Town Centre	Kilmacthomas Portlaw Tallow
Level 4	All Other Local Service Centres
Level 5	All Settlement Nodes

Table 6.1 County Retail Hierarchy

7.2.9 Under the amalgamated City & County Council there is now a requirement to provide one integrated hierarchy for both city & county. Set out below is the proposed Waterford City & County Retail Hierarchy[11]

[11] This retail hierarchy should be kept under review and may be subject to change over the lifetime of the strategy.

Level/Function		Centre
Tier 1	**Metropolitan**	Waterford City Centre
Tier 2 (L1)	**Sub-Regional**	Dungarvan Town Centre
Tier 2 (L2)	**District/Suburban Centres**	Tramore Town Centre
	(In excess of 10,000 Population)	Ardkeen/Farronshoneen
		Waterford Shopping Centre, Lisduggan
		Kilbarry, Tramore Road, Inner Relief Road
		Ferrybank Centre Abbeylands
Tier 3	**Small Towns and Rural Areas**	Dunmore East
	(1,500 - 5000 Population)	Portlaw
		Lismore
		Tallow
		Kilmacthomas
		Cappoquin
Tier 4	**Local Shopping**	Cleaboy
		Kilcohan
		Ballinakill
		The Outer Ring Road Williamstown, Ballygunner Road (Opposite Meadowlands).
		Ballybeg
		Hypermarket Morgan Street
		Carrickpherish
Tier 5	**Other**	Local Shops in Waterford City
		Villages in Waterford County

7.2.10 The Retail Planning Guidelines define a 'Town Centre' as follows:

> *"Town Centre: the term town centre is used to cover city, town and district centres which fulfil a function as a focus for both the community and public transport. It excludes retail parks, local centres and small parades of shops of purely local significance." (para 27 p. 8)*

7.2.11 Waterford City is the principal urban centre in the county and region and forms the first tier within the retail hierarchy. The City exhibits a number of higher order retail, service and specialist functions not found elsewhere in the County. It has a good range of convenience and comparison shopping as well as cultural and entertainment facilities, restaurants, night clubs and pubs.

7.2.12 It has been identified however, that the City is underperforming in terms of comparison offer and that there is clearly a need to further reinforce the retail role and function of the City in order for it to retain expenditure, build on its NPF designated key role, develop its tourism role and ensure that it has significant retail attraction and offer to serve the needs not just of its County catchment but of its

regional catchment. In order to sustain its position as a major regional centre and Regional City of scale, it should be the prime focus for future retail investment and development especially for non-bulky comparison goods including fashion and footwear.

Second Tier

7.2.13 The second tier centres are made up of two levels. Level 1 is Dungarvan Town. Given its history of the former 'county town' and given its location in west Waterford with a large catchment area, Dungarvan is an important market town which both has an important convenience shopping function, but also an relatively well developed comparison function. Therefore it will be important to protect and develop the retail function of the town centre of Dungarvan by both enhancing the environment and vitality of the town centre, and by closely controlling any inappropriate out of town retail developments.

7.2.14 Level 2 include Tramore Town and the existing district/suburban centres in the environs of the City. Tramore is located in the catchment of Waterford city but has greatly improved its convenience retail offering in recent years. Tramore is also an important tourism destination, and potential exists to further develop niche retail services to meeting this expanding tourism market and to the development of niche comparison shops with a small number of boutiques and bridal boutiques attracting a regional clientele and a growing artisan food retail sector. However, in relation to comparison shopping, given the proximity of Tramore to the city, Waterford will continue to meet the main comparison needs of the town.

7.2.15 District/suburban centres usually provide a more limited service role. They are defined in the Retail Planning Guidelines as follows:

"District Centre: either a traditional or purpose built group of shops, separate from the town centre and either located within the built-up urban area or in a suburban location on the edge of an urban area, usually containing at least one food supermarket or a superstore and non-retail services, such as banks, building societies and restaurants."

7.2.16 The existing district/suburban centres in the environs of the City (with the exception of the Ferrybank centre in Co. Kilkenny which is constructed but currently vacant) are generally characterised by a large convenience anchor and a range of local retail services, ancillary specialist convenience outlets (i.e. butcher, greengrocer), community and social facilities and lower order comparison offer. Most of these centres serve a localised catchment and are primarily designed to serve weekly shopping needs.

7.2.17 Most of the district/suburban centres in the City area are modest in scale with limited development potential. The existing floorspace of each centre is presented in Table 7.1 below:

Table 7.1: Floorspace: Existing District/Suburban Centres in Waterford City

District Centre	Gross Floorspace (sq. m.)	Net Retail Sales Space (sq. m)
Kilbarry	6,317	5,054
Ardkeen/Farranshoneen	12,700	10,480
Lisduggan	8,458	6,766

Source: An Bord Pleanala Report: Ref: 31.215125

7.2.18 The unoccupied Ferrybank development has a gross floor area of over 34,000 sq. metres with a net retail floor area in excess of 7,000 sq. metres. The current Ferrybank/Belview Local Area Plan (2017) has designated Ferrybank SC as a District Centre as per the hierarchy set out in the Retail Planning Guidelines. This shopping centre has remained vacant since it was constructed over a decade ago, and it is highly questionable as to whether it will ever function as a shopping centre, given the planned development of the North Quays.

7.2.19 There have been previous planning permissions for the redevelopment of the Waterford Shopping Centre at Lisduggan, which would have permitted up to 11,029 sq. metres of development, but these have now expired. The general updating and renewal of Lisduggan would be welcomed considering the current state of the centre.

7.2.20 It is noted, that An Bord Pleanala has been restrictive in terms of the quantum and extent of development permitted in district/suburban centres in the suburbs of the City. Under file ref. 208088, the Board refused permission for the expansion of the centre at Farranshoneen for comparison development. The Lisduggan development was reduced in scale by the Board and the extent of comparison floorspace significantly reduced. In addition, stringent conditions ware attached preventing subsequent conversion of storage or mezzanine area to retail use and conversion of approved convenience or other retail floorspace to comparison use. It is evident that the City was at the time experiencing pressure to develop its district/suburban centres to accommodate a more significant range of convenience and comparison floorspace.

7.2.21 In this regard, it is recommended that the future development or redevelopment of the district/suburban centres in the City area is carefully monitored to ensure that the level and type of retail provision and their scale is appropriate in the context of the guidance set out in the Retail Planning Guidelines and in particular having regard to the limited scale and population of the City and the need to enhance the comparison role of the City Centre. District/suburban centres should comprise an anchor convenience store and modest range of complementary retail service development with limited comparison floorspace. Permitted comparison floorspace should be low and mid order in character. Proposals for such developments should be supported by a clear assessment as to whether any such development would have a material impact on Waterford City Centre.

Third Tier

7.2.22 Tier 3 includes the smaller towns of Dunmore East, Portlaw, Lismore, Tallow, Kilmacthomas and Cappoquin. These towns play important convenience shopping role for their respective local catchment areas, and in some cases, also provide

some limited comparison retail (e.g. hardware or family run clothes shops) and these outlets requires to be maintained by supportive local planning policies.

Fourth Tier

7.2.23 Local and Neighbourhood Centres are considered to be within the fourth tier. These are defined in the Retail Planning Guidelines as follows:

7.2.24 *"Local Centre or Neighbourhood Centres: small groups of shops, typically comprising a newsagents, small supermarket/general store, sub-post office and other small shops of a local nature serving a small, localised catchment population."*

7.2.25 There are a number of existing and planned neighbourhood centres in the City area. The quality and level of retail provision varies significantly between the centres. All however, provide an important shopping function for the local community and primarily serve day to day and top up shopping needs. In this regard, the role and function of such centres should be safeguarded in the future.

7.2.26 At present the suburbs are well served by neighbourhood facilities. In areas such as Knockboy, neighbourhood centres are either planned or permitted but not yet constructed. It is envisaged that there will be substantial new residential development in the City over the forthcoming plan period and it is envisaged that the majority of this planned population growth will be targeted to the existing and planned residential areas within the City. However, if new residential areas are developed, it would be appropriate for such areas to be served by a modest neighbourhood retail facility. Such a facility would typically be anchored by a convenience outlet of not more that 1,500 sq. metres net and associated ancillary retail services and facilities, coupled with community infrastructure.

7.2.27 Neighbourhood facilities may also be appropriate in large industrial or employment zones where they provide a valuable local shopping and retail facility for the workers and employees of such estates. Such neighbourhood facilities usually comprise a modest convenience store, sandwich shop/deli/coffee shop and perhaps other services such as dry cleaners, ATM etc.

Fifth Tier

7.2.28 Retail facilities in the fifth tier are typically small local shops serving villages and residential estates, shops attached to petrol filling stations etc which serve a local catchment area. Rural villages have the potential to develop a sustainable network of vibrant rural villages throughout the County that can drive social and community development, new commercial rural businesses. The local rural shop can be hub for postal services, tourism information, etc, local hall for doctor/ nurse visits, hair dressing and other services, school to be used for Garda liaison, community care etc'.

7.2.29 Therefore these important social and economic functions of village/local shops in serving local neighbourhoods, catering for the less-mobile, the elderly and those without a car are recognised in the Retail Planning Guidelines and will be supported and permitted to grow through this Strategy.

7.2.30 In addition, another sub-sector at this and neighbourhood level *(eg Ballybeg Greens),* is the casual trading sector, including farmers markets. These are often tourist attractions, and provide an alternative to normal retail formats. Farmers markets also present an opportunity to the local populations to sell their fresh produce directly to the customers , thus providing them with access to fresh locally grown, often organic, produce. Such markets can present a welcome addition to the retail options of urban areas and can compliment and augment the existing retail and non-retail uses.

7.3 DEFINITION OF THE CORE RETAIL AREA

7.3.1 The core shopping area of Waterford City is identified on Map 7.1. In determining the core area, the following was considered:

- The definition and policies of the existing development plan.
- The objectives of the retail strategy to maintain and enhance the vitality and viability of the city centre.
- The policies & objectives of the Planning Scheme for the North Quays SDZ. Below is Figure 6 taken from the Planning Scheme which illustrates the relationship between the North Quays and the city centre retail core.

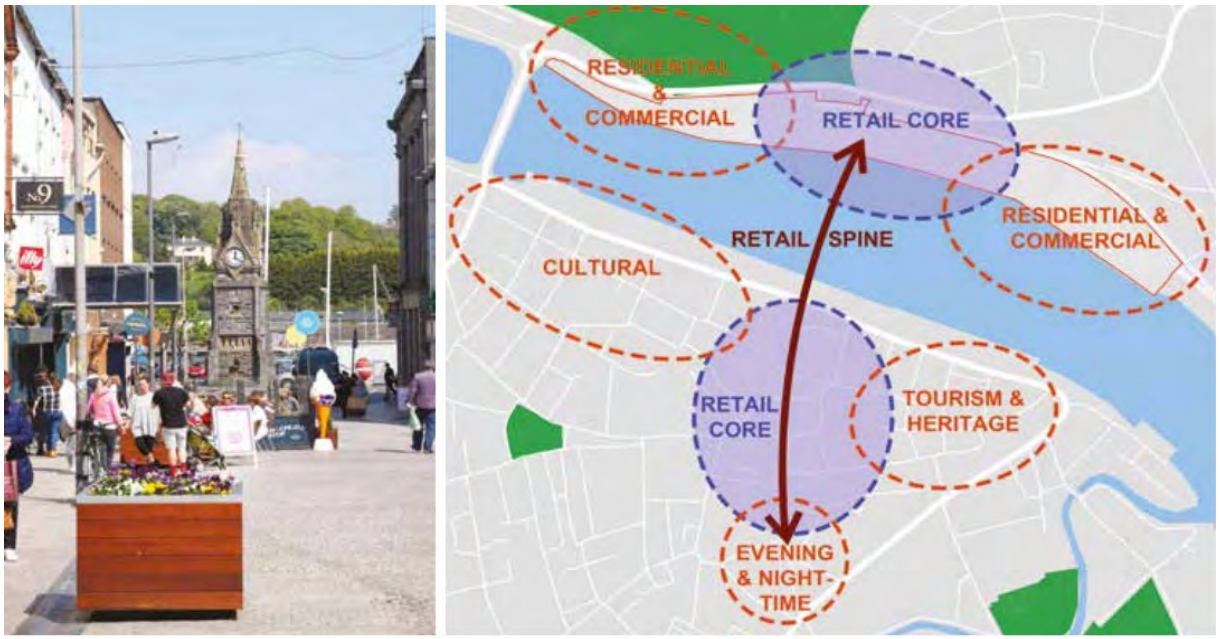


Figure 6: Existing & Proposed Land Use Quarters

Figure 7.1 North Quays SDZ Planning Scheme

7.3.2 The Core shopping area is normally characterised by a mix of factors including prime retail units, low vacancies, predominance of multiples and well established family run stores, few non retail uses and high pedestrianised foot flow. It is

recognised that such core areas may expand to the immediately adjacent areas over the life time of this Strategy.

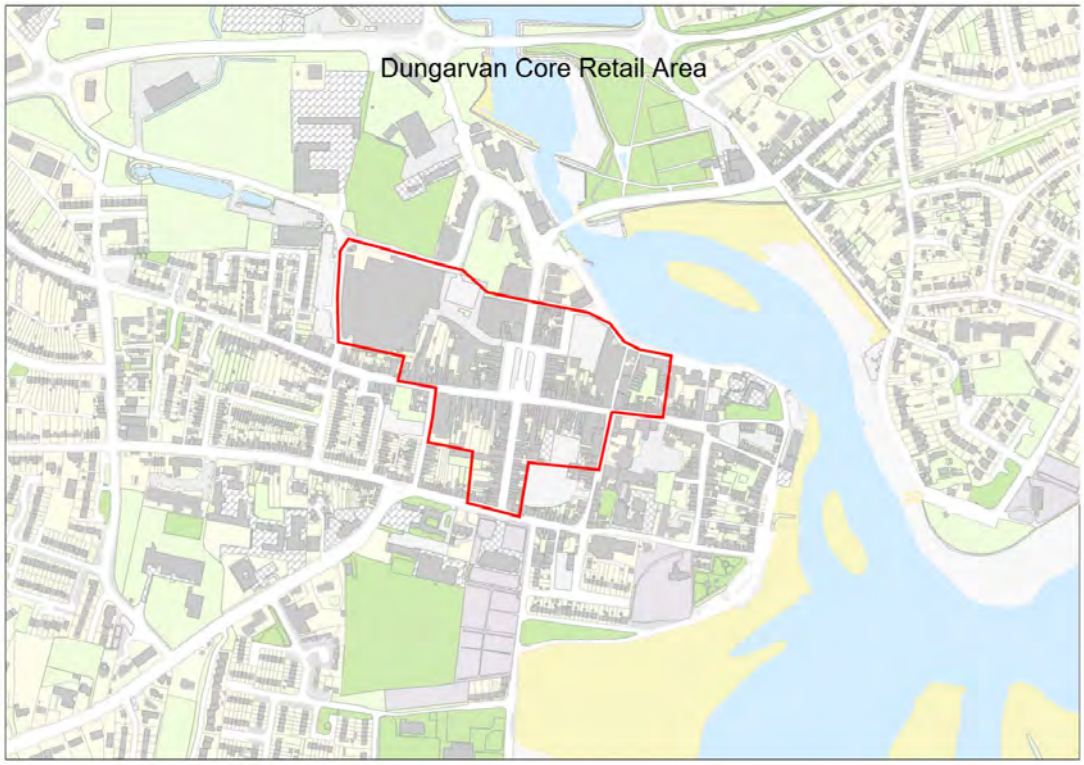
Figure 7.2 Waterford City Core Retail Area

7.3.3 Figure 7.2 above identifies the core retail area of Waterford City The area extends from the North Quays southwards and includes Barronstrand Street, Broad Street, John Roberts Square, Georges Street, Gladstone Street, Little Patrick Street, Patrick Street, Arundel Square, Conduit Lane, Exchange Street, Kiezer Street, Henrietta Street, New Street, Stephen Street and Michael Street and the blocks between these streets.

7.3.4 The core retail areas for both Dungarvan and Tramore have also been defined. In the case of Dungarvan the core area is shown on Figure 7.3. and incorporates the following Streets:

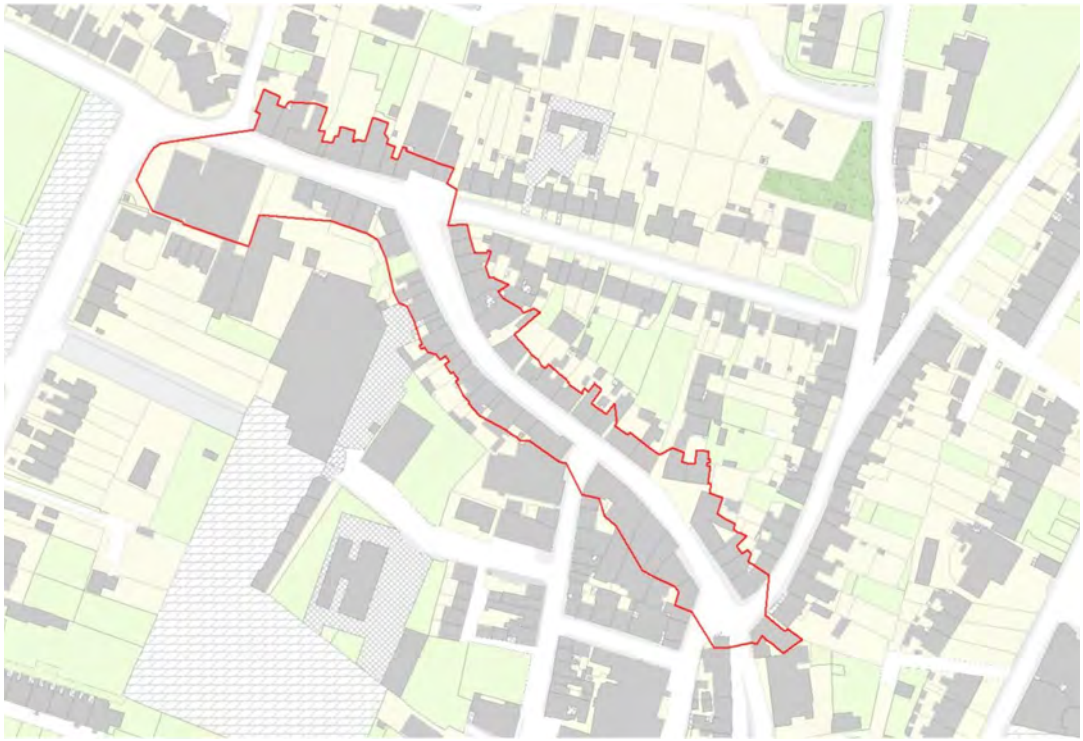
- Grattan Square,
- Parnell (Main) Street,
- High Street
- Mary Street.
- O'Connell Street

Figure 7.3 Dungarvan Core Retail Area



7.3.5 Tramore does not have as well defined core retail area, but the main spine (Main Street/Strand Street) from the lower to upper town is important in retail terms, as this is shown on Figure 7.4 below as Tramore's Core Retail Area.

Figure 7.4 Tramore Core Retail Area



7.4 DISTRIBUTION OF FLOORSPACE REQUIREMENTS

7.4.1 We have undertaken a capacity assessment in the previous section of this study. This is based on a number of forecasts and assumptions which may be subject to change.

7.4.2 We have estimated that it is only by 2031 that there will be need for additional convenience floorspace, and this will be quite modest in scale. Conversely there is an immediate undersupply of comparison retail floorspace of in the order of 30,000 sq.m. and this need is projected to grow to 55,000sq.m. by 2026 and 77,000 sq.m. by 2031. Under the higher growth scenario the equivalent 2026 figure is 61,000sq.m. and by 2031 85,000 sq.m. There is no requirement for additional retail warehouse floorspace within the catchment until after 2031.

7.4.3 It is recommended that new retail floorspace provision will reflect the existing and projected population in the City & County and the identified retail hierarchy. Additional demand for comparison retail floorspace should be promoted within the existing City Centre area, and in Dungarvan Town Centre. Convenience development would be appropriate as an anchor store both within the city centre of identified district/suburban centres within the city, or in Dungarvan or Tramore town centres or one of the other towns within the county. Additional comparison floorspace is essential in the city centre to ensuring that the City enhances its retail offer and attraction. Dungarvan town centre also has the capacity to accommodate some additional comparison shopping.

7.4.4 Notwithstanding the above retail projections which demonstrate the need for significant additional comparison floorspace, both in the short and medium term, there is relatively little in the pipeline, by way of extant planning permissions. Within the city there is an existing permission for circa. 10,000 sq.m. of retail floorspace, of which c.6,731 sq.m. is comparison floorspace, within the proposed Michael Street/New Street shopping centre. In addition, the North Quays SDZ Planning Scheme makes provision for circa 30,000 sq.m. of retail floorspace, and a planning application for a very large mixed use development, including this level of retail has recently be lodged with the Planning Authority. Even with these two developments there is potential to accommodate upwards of a further 15,000 sq.m. of comparison floorspace in the medium term. These figures should not be considered as upper limits, merely as indicative of the scale of new floorspace required to meet the needs of existing and future population and expenditure in the City & County. Additional new floorspace may be proposed and this could replace some existing outdated or poorly located retail floorspace. These figures should be seen as minimums rather than maximums. The key consideration is the location of new floorspace. The quantum only becomes a critical consideration where new comparison floorspace is proposed outside of the defined retail core of the city/town centre and the issue of likely impact on the city/town centre as a whole arises. Based on the NPF/RSES population projections and the policy focus to significantly enhance the critical mass of Waterford city, it is recommended that in the order of 85% of all future additional comparison floorspace in the county should be directed towards Waterford city centre.

7.4.5 Whilst the potential for additional convenience development may appear low, this should be viewed in the context of the extent of such floorspace recently

implemented. There is likely to be a need for further modest neighbourhood scale convenience development over the life of the strategy in order to continue to improve retail offer, choice and competition. Such development is most appropriate within existing and planned neighbourhood and district/suburban centres or on appropriately zoned commercial land near to such centres or in other town or village centres, where modest scale additional convenience retail can help to maintain the vibrancy of the small town/village centre.

7.4.6 It is acknowledged that it may not always be possible to locate larger scale convenience retail provision (in excess of 1,000 sq. metres net) in the City or in new or proposed neighbourhood or district/suburban centres due to their large floor plate requirements. In this regard, appropriately zoned edge of centre locations may be considered for such development.

7.4.7 It should also be noted that some convenience operators now operate stores with a significant comparison element. Detailed consideration of the extent and scale of any such proposals should be given in the context of its potential impact on the city/town Centre. Such stores can sell clothing, footwear and household items which can impact negatively on the established city/town centre.

7.4.8 A number of potential opportunity sites for the development of high end comparison retailing have been identified in the City Centre Report[12] prepared by the Council in 2009 and every effort should be made to prioritise these sites for significant retail development. In this regard there should be a clear presumption against the development of high order comparison floorspace in the suburban areas of the City and in planned and existing district and neighbourhood centres.

7.4.9 In terms of retail warehouse development, both the City and County are well served in terms of bulky household provision. This is reflected in the low projected floorspace requirements for this category of retail floorspace, following the rapid grow in this sector in the early 2000's. It is recommended that future retail warehouse provision is met in existing and planned retail parks. Conditions should be imposed in such developments clearly restricting the sale of goods to bulky household items. Outside of Waterford city and the towns of Dungarvan & Tramore, retail warehousing is not appropriate.

Conclusions

7.4.10 In conclusion the distribution of future floorspace must have regard to the identified retail hierarchy. The redevelopment of key sites within the City Centre for retail development in order for the City to compete as a high level retail destination is of paramount importance. In this regard, the City Centre must be targeted and be the focus for higher order comparison retailing. This will entail restricting the level of comparison floorspace that can be accommodated in the suburbs. Comparison floorspace should also be directed towards Dungarvan town centre.

[12] Waterford City Centre Report , Waterford City Council, 2009

7.4.11 Convenience floorspace is also desirable in the City Centre, particularly as an anchor to a major retail development. However, there are opportunities for the development and expansion of convenience floorspace in the existing and planned district and neighbourhood shopping centres. Convenience development may also be appropriate on edge of centre sites on appropriately zoned commercial land, where such developments cannot be accommodated within existing centres due to limited floorspace potential or exclusivity clauses. In terms of retail warehousing, any future provision should be targeted to the planned and permitted retail parks in the City and in Dungarvan & Tramore.

7.5 SPECIFIC OBJECTIVES FOR WATERFORD CITY CENTRE

7.5.1 This section will summarise the general appropriate policies and actions to encourage the improvement of Waterford City Centre which follows on from the qualitative assessment in Section 5.

General Measures to Promote Waterford City Centre

7.5.2 Detailed below are a number of general policies and objectives that should be implemented to encourage and foster retail development in Waterford City. Whilst it is acknowledged that the development of retail facilities is largely dependant on market demand and retailer requirements, it is envisaged that the following general policies will help promote Waterford City as a vibrant and attractive area thus encouraging its growth, enhancement and development for retail, retail service, professional service and other complementary land uses.

<u>Promotion of Residential Development and Tourism and Educational Facilities in the City Centre</u>

- A key factor in the development of future retail facilities, particularly in some of the more peripheral and declining areas of the City Centre will be the development of a critical mass of population to support additional retail facilities. In this regard, and in the interests of sustainable development, residential development should be promoted and developed in the City. There are a number of peripheral and brownfield sites in the City that would be appropriate for residential development. This pattern of consolidation will ensure that Waterford City becomes an active living centre with the critical mass of population necessary to support a range of facilities and services. Such objectives is consistent with the new NPF policy objective of promoting compact urban development.

- In addition, third level facilities and student accommodation associated with Waterford IT, and its proposed transformation into a Technological University should be promoted in the City in order to attract third level students and the spending power associated with this sector. Therefore the retention of third level educational facilities within the city centre should be promoted.

- Retention of tourism expenditure and the development of appropriate synergistic tourism facilities and activities will be critical in the future development of Waterford City. The further promotion of cultural activities and events should be encouraged to draw visitors to the City. While much work has been done in this area, further product development and tourism offerings need to be developed to ensure that Waterford continues to grow as a tourist destination, with consequent growth in both bed spaces and length of stays. In this regard plans for a tourism offering on the North Quays including hotel and visitor/conference centre are very encouraging.

- This also links in with the need to develop further festivals and events so as to enhance the overall experience of vising the city centre, given the ever increasing importance of experiential retailing.

- As recommended in the City Core Report, consideration should be given to auditing the cities key educational, tourism, cultural and economic assets in order to assess how their contributions to the city centre economy can be strategically strengthened and maximised.

Design and Shop Front Guidelines

- Specific Design Guidelines for shop frontages and upper floors of buildings should be prepared and advice given to property owners and retailers on urban design. This should include the retention of existing traditional shop fronts and timber sash windows in upper floors.

- There should be a presumption against inappropriate shop front design and strict enforcement for unsympathetic and unauthorised signage and shop front fascia.

- Consideration should also be given to introducing a grants scheme and guidance on the painting of the upper floors on buildings within the core retail area.

Business Improvements District Schemes

- A feasibility study regarding the development of a city centre management initiative for the City in association with the Chamber of Commerce should be prepared. This may include the setting up of a city centre management committee and one or more 'BIDS' or Business Improvement Districts.

- A BIDS Scheme now operates in Dublin City Centre. The key objective of the Bids scheme is to develop and implement a series of new and additional initiatives designed to both further promote and improve the trading environment for the area within the BID boundary in which ratepayers operate their business. It is also designed to improve the image of Dublin City Centre from a tourist perspective and improve the quality of life for residents and workers in the BID area. The role of the local authority in this process is to facilitate schemes proposed by groups of ratepayers. They ensure the scheme is appropriate and collect the money on behalf of the BID company.

- In Dublin the scheme has been successful in offering services such as enhanced street cleaning and maintenance and a dedicated team of street ambassadors providing tourist information in the City Centre. BIDS provide a whole new impetus for businesses to work with their respective local authorities and local residents, allowing for innovation and acumen to benefit everyone in an area.

- In a Business Improvements District Scheme, a group of businesses are empowered, where a majority of those businesses agree, to raise a special contribution from all the businesses in the defined area to pay for the carrying out of complementary local services and improvements, within that defined area. The boundary of, and the range of local improvements to be carried out in the defined area of, a Business Improvements District Scheme are set out in a detailed business plan which is developed by the business community in association with the local authority.

City and Town Centres:

- Waterford City & County Council has set up a Waterford City Centre Management Group and two Town Centre Management Groups for Dungarvan and Tramore. The purpose and ambition of the City/Town Management Groups is for the continued growth and regeneration of their respective centres. The Management Groups are to be welcomed and provide a proactive partnership involving a range of key interests from the public and private sector which can focus on:

    - Providing strategic vision for the City and Town centres;
    - Preparing the City/Town Centre Management Plan;
    - Ongoing monitoring of the implementation of the Plan;
    - Engagement in an annual Health Check; and
    - Co-ordinating activities with the Visit Waterford Tourism Committee.

Special Contribution Scheme

- Section 48 and 49 of the Planning and Development Act 2000 deal specifically with the issue of Development Contribution Schemes. The planning authority must set out a contribution scheme in which the basis for the determination of contributions is set out. Section 48 (20 (c) allows for special development contributions. It is stated:

  "A planning authority may, in addition to the terms of a scheme, require the payment of a special contribution in respect of a particular development where specific exceptional costs not covered by a scheme are incurred by any local authority in respect of public infrastructure and facilities which benefit the proposed development"

- Investigations should be carried out regarding the possibility of developing such a supplementary scheme for specific works which enable City Centre management and environmental improvements which specifically enhance the vitality and quality of Waterford City Centre.

Parking

- The quantity and cost of City Centre parking has been identified as a critical issue in the success of City Centres in many of the written submissions received. The lack of/cost of parking was also identified as an issue in the household and shopper's surveys undertaken (see Chapter 4). These surveys identified that shoppers to the city centre perceived that there was both a shortage of parking spaces and the costs were higher relative to other competing cities and towns. It is recommended that the Council would undertake a review of its parking charges and tariffs to ensure that the City retains its competitiveness with other retail centres, and to consider the modulation of parking rates during evenings and at weekends.

Infill Development

- Consideration should be given to the design and form of infill development within the secondary and peripheral retail streets in the City Centre. At these locations it can be difficult to attract viable retail development. In this regard it is recommended that the ground floor units of such infill City Centre developments (particularly those with an active street frontage) are designed with flexibility, for example higher floor to ceiling heights, to enable their easy conversion to retail or other commercial use if the demand so arises. This is to avoid the development of ground floor retail units which remain vacant with no active use which can be detrimental to the vitality and viability of the City Centre. The feasibility of developing alternatives such as live work units and professional services/own door offices in such infill schemes should also be investigated.

Ongoing Environmental Improvements to the Public Realm

- Waterford City has benefited greatly from an ongoing programme of environmental improvement, maintenance and enhancement over the past number of years. The attractiveness of John Roberts Square and the Viking Triangle is testament to the success of such ventures in providing a heart to the City. It is essential that such works extend further, particularly to the streets that radiate from the principal shopping streets and that the public realm is constantly maintained an enhanced through initiatives such as street cleaning, footpath repair, public seating, public art, derelict site maintenance and hard and soft landscaping. There is a need to improve the linkages between the Viking Triangle and the core retail district, and as and when the North Quays is redeveloped, to improve connections between the north and south quays.

After Hours Activity

- The development of the evening and night time economy is an important part of any City and it essential in ensuring the vitality and viability of City Centres particularly after hours. City Centres can become dead zones after normal retailing hours if there are no attractions to draw people there in the evening. In this regard the integration of retail, leisure, restaurants and bars is essential to the promotion of a vibrant City Centre. The obtaining of a Purple Flag is evidence that strides are being made in this direction, and this is seen as a model of good practice of how the hospitality sector have worked together and there is a need for the retail sector

to follow suit and align their opening hours more closely with the hospitality sector to ensure a vibrancy during the evening times.

Specific Measures to Promote Waterford City Centre

Detailed Environmental Improvement Scheme

- Whilst the quality of the public realm in the City is generally good, and excellent in parts, there is room for improvement and a more consistent approach in the treatment of public spaces. In this regard, it is recommended that a comprehensive and detailed Environmental Improvement Scheme should be drawn up for the City Centre area and in particular for the streets radiating from John Roberts Square eventually extending to the entire City Centre area. This should include potential for further pedestrianised areas, high quality paving and street furniture, tree planting, flower baskets, sculpture, water features, lighting and so on, and all environmental improvements would be universally accessible. The scheme should extend to include all signposting and traffic light hardware. The scheme should also include recommendations and measures regarding a future maintenance regime.

- The continued refurbishment/upgrading of the main streets, laneways and thoroughfares in the City will enhance the vitality and attractiveness of the City's retail core by improving the shopping environment and encouraging greater pedestrian permeability. The report should identify areas where there is scope for better connectivity, legibility and linkages particularly from the Mall through the Viking Triangle into the City Centre.

Litter Management

- Poor litter management, street cleaning and bin emptying can detract from the City Centre and can have a significant adverse impact particularly from a tourist perspective. Results over recent years in the IBAL surveys have indicated that significant progress has been made in tackling litter, but further work is required.

City Quays

- The City Quays have significant development potential and their amenity and recreational value is not fully realised at present. While some improvements have been made in recent years with revised traffic management plans, there remains potential for further enhanced environmental improvements, better directional signage, traffic calming and improved pedestrian connections between the car parking areas and the shopping areas. In this regard, the feasibility of removing some of the surface car parking provision should be investigated further and in the interim, the existing parking areas would benefit from hard and soft landscaping to soften their visual impact.

- As detailed in the City Centre report the North Quays Planning Scheme, the connection between the North Quays and the City Centre needs to be further exploited and developed. In particular the provision of a new pedestrian/public transport bridge is essential to link the quays and to develop a gateway to the City

Centre in proximity to the clock tower to give a clear signal to visitors of the location of Waterford's City Centre.

Area of Special Planning Control

- It is noted in the qualitative section of the report, that the retail role of the prime retail pitch is being somewhat eroded by the introduction of non-retail uses and lower order comparison retailers. As noted this is undesirable as it can detract from the prime retail function of a street and dissuade prime city centre retailers from locating there.

- In this regard, consideration should be given to extending the Area of Special Planning Control, from that defined in the 2012 Retail Strategy to take in Michael Street, and to a wider area along the South City Quays. It would apply to all retail properties with a direct frontage to these streets. It is evident from the health checks that that as you travel southwards along Michael and John's Street these two streets appear to be in transition, with relatively high levels of vacancy. This may be partially due to uncertainty regarding the proposed Michael St./ New St. shopping centre proceeding, and also the transition into the night times uses concentrated around the Apple Market. It would be important that the area of special planning controls would be utilised to protect Michael Street, as far as the New Street junction, to retain the retail function on this street.

- The purpose of a Special Planning Control Scheme is to set out development management measures in order to achieve an appropriate mix and balance of uses in the prime retail areas. In particular, it addresses planning exemptions relating to changes within the same use classes including the de-exemption of specific uses such that a change of use to a particular type of shop will require permission. In this regard, this would allow the Council to prohibit undesirable retail uses in the prime retail streets including cash for gold shops, sex shops, mobile phone shops and discount shops. It would also enable the council to control a proliferation of retail services such as bookmakers, hair salons and internet cafes.

- The Special Planning Control Scheme could also make recommendations regarding advertising structures and de-exempt all signage and advertising structures both internal and external within the designated area and set out policies and objectives for the built environment and public realm.

- The de-exemption of the ability of a retailer to change the use of a shop from one retailer to another also gives the Council the power and discretion to permit uses for a temporary period of time. This may be appropriate for example where a shop unit has been vacant for some time, and rather than it becoming used by a non prime retail use on a long term lease, the de-exemption clause would allow the planning authority to restrict such a use for a temporary period e.g. 3 years, pending the improvement of the retail market.

- The primary purpose of the scheme is to highlight the importance of specific existing uses that are key components in the established character of the area and that act as magnets to the City and to control and prevent undesirable uses that may detract from these existing uses and character of the retail streets.

Development Management

- Proactive development management also needs to take place to ensure that the overdevelopment of particular uses such as takeaways does not occur in prime retail areas.

Development of Specific Derelict and Obsolete Sites

- Waterford Council have been successful in recent years in promoting initiatives to develop derelict and obsolete sites in the City for alternative use and/or environmental improvement and in some instances redevelopment to enhance city centre vibrancy through a mix of uses including residential.

- These initiatives are to be welcomed and it is recommended that this work continue with specific high profile derelict/obsolete sites, particularly on the secondary shopping streets such as O' Connell Street, being targeted for redevelopment and investment, in conjunction with the development of the planned cultural quarter.

- It is recommended therefore that the Council prepare a co-ordinated programme for building maintenance and development, as well as the identification of specific buildings and sites that need to be targeted immediately. The Council need to carry out regular inspections of the City Centre identifying vacant sites in need of redevelopment/renewal on an ongoing basis. The Council should also fully avail of the opportunities provided by the Vacant Sites Levy.

Improving Accessibility

- The City Centre Report identifies a number of specific measures that could improve accessibility to the City Centre. These recommendations are needed and are now only starting to be implemented. Significant progress has been made in some of these areas already, particularly through the implementation of the green routes. However further measures may include

    - Consider innovative signage along the south quays providing information on the City Centre and Viking Triangle.

    - Investigate park and ride strategy in peripheral areas of the City including the North Quays.

    - Offer an attractive, legible, informative, safe and traffic controlled environment, with easy access to sufficient off street car parking in order to provide a hassle free experience for motorists when entering the city for business or pleasure (underway through green routes proposals).

    - To review the existing inner city transport route with a view to facilitating the removal of non essential traffic from the central core and to provide more efficient public transport (green routes).

- Introduce a HGV/delivery strategy for the City Centre.
- Improved cycle paths and cycle parking provision in the City area.
- Removal of on-street car parking in areas to allow for improvements and upgrading of the public realm.
- In terms of car parking and access to the city centre, further car parking and public transport proposals will be derived from the Waterford Metropolitan Area Transport Strategy to be prepared under the auspices of the NTA in the coming years.

Development of Specific Opportunity City Centre Sites

- There are a number of sites in the City Centre area which have the capacity to provide appropriate opportunities for accommodating large retail developments. These sites include:

  Jenkin Lane Car Park/ Little Patrick Street/Georges Street - It is detailed that this is a key central block with a significant proportion in the control of the Council, while a number of other existing properties in this block contribute to the traditional main shopping areas of John Roberts Square/Georges Street, Barronstrand Street. It is noted that the redevelopment of this area would add to the richness and variety of the city centre retail core.

  Michael Street/New Street - This block is closely linked to the principal shopping streets and accommodates an extant permission for a major city centre mixed use and retail scheme. The redevelopment of this strategic site would contribute significantly to the enhancement of Waterford's retail attraction. The redevelopment of this block should be a priority.

- The revitalisation of the traditional city centre of Waterford is dependent upon the creation of new major retail attractions, combined with high quality car parking provision, integrated with the main streets, and associated improvements to the public realm. There are opportunities to achieve this in the City Centre although it is acknowledged that there are constraints due to the existing pattern of development and existing land ownership patterns. It is likely that it will be necessary for positive intervention from the local authority, including the use of compulsory purchase powers, to be relied on in order to secure the development of these sites.
- However, until the opportunities for City Centre major retail development have been exhausted, a very cautious approach should be taken in considering any applications for further retail floor space outside the City Centre retail core as defined in this study, other than for convenience and neighbourhood shopping. The development of further comparison retailing outside the traditional town centre area is likely to undermine the prospects for revitalising the City Centre and will hasten its decline.

- Notwithstanding the above, the development of edge of centre sites, particularly those identified below may be considered for comparison retail development where it can be clearly demonstrated that:

- the City Centre sites identified by the Council cannot be developed in the short term;
- that the development will not have an adverse impact on the vitality and viability of the City Centre;
- that the development will complement existing and proposed retail development in the city centre, create opportunities for commercial synergy and complement the existing retail structure of the City.

7.6 SPECIFIC OBJECTIVES FOR DISTRICT/SUBURBAN CENTRES, NEIGHBOURHOOD CENTRES, RETAIL WAREHOUSING AND LOCAL SHOPS

District/Suburban Centres

7.6.1 There are four district/suburban centres in Waterford City, namely Ardkeen/Farronshoneen, Lisduggan (Waterford SC), Hypercentre, and Kilbarry. A fifth district/suburban centre has been constructed on the edge of the City within the administrative area of Kilkenny County Council, but this remains vacant. Other than the latter, all are trading well and have good occupancy, with the exception of Ferrybank which is currently vacant.

7.6.2 The Council should continue to encourage the general upgrade and maintenance of these centres as appropriate and be proactive in discouraging any unauthorised development, illegal signage etc.

7.6.3 Lisduggan is a centre that is in need of redevelopment and rejuvenation and the Council should actively encourage the regeneration of this centre. It is noted that there is an extant permission for the centre, although it is uncertain when or if this will be implemented. In the interim, the Council should prepare an action brief for this site to encourage improvements in the public realm, external signage, public lighting, directional signage, hard and soft landscaping etc.

7.6.4 The development of comparison floorspace, particularly high order comparison should be strictly controlled and monitored in the district/suburban centres. There should be a presumption against the further development of comparison floorspace at Ferrybank. As defined in the Development Plan high order comparison goods are normally sold in Department stores, International and National multiples and specialist quality outlets and would include luxury items, designers clothes and footwear and household goods.

Neighbourhood Centres

7.6.5 The existing and planned neighbourhood centres in the City area provide an important local shopping role for residents and provide a range of essential day to day services and facilities.

7.6.6 The Council should encourage the continued development and upgrade of such centres and further neighbourhood shopping facilities should be planned for areas of residential expansion. Such facilities may also be appropriate in large employment/industrial zones to serve the day to day shopping needs of employees.

7.6.7 The existing neighbourhood centres at Cleaboy and Kilcohan would benefit from improvements to their public realm and it is recommended that the Council prepare an action brief for each of these centres to encourage improvements in the public realm, external signage, public lighting, hard and soft landscaping etc.

7.6.8 The proposed neighbourhood centre at Knockboy is not yet constructed. It is recommended that a neighbourhood centre at this location should be anchored by one medium sized convenience store not exceeding 1,500 sq. metres net retail floor area with a range of associated ancillary retail facilities, services and community facilities. Detailed consideration should be given to the design of such a facility to ensure its optimal integration with the surrounding community and that it contributes to the creation of a neighbourhood centre. In this regard, it is recommended that the Council prepare a detailed design brief for the future development of this site.

7.6.9 The existing neighbourhood centre at Ballybeg is poorly executed and remote from the existing residential community. It comprises a large Tesco store which is poorly integrated with other community facilities in the vicinity. It is noted that an Action Area Plan was previously prepared for the Ballybeg/Kilbarry area. It is recommended that this Plan be reviewed to investigate the opportunities for further neighbourhood centre and commercial development and the better integration of the existing Tesco development with the surrounding residential communities.

7.6.10 In Carrickpheirish, a small neighbourhood centre has been partly developed.

Retail Warehousing

7.6.11 Extensive areas of retail warehousing have been developed or have permission in the Waterford City Area and its environs, including the retail parks at Buttlerstown, Six Cross Roads, and the Cork Road.

7.6.12 The nature and type of goods sold from retail warehouse developments needs to be strictly controlled and monitored and limited to bulky household goods.

Local Shops

7.6.13 Local shops play an important role in the social life of the community. In this regard, the council should promote the provision of such facilities at appropriate locations. In particular, Ballybricken is a unique retailing area and acts effectively as an urban village within the City. In this regard it is recommended that the Development Plan for the area contains a specific objective to preserve Ballybricken as an important local shopping destination.

7.6.14 Local convenience outlets play a vital role in community self-sufficiency especially for those without access to public transport. Their function is also extremely important locally to meet 'top-up' convenience goods shopping needs (i.e. those products which need replacing between main food shopping trips) and to provide local services, including the provision of takeaway food. Towns, villages and rural areas also need to be supported in the development of new areas of economic activity, such as local value added enterprise activities, tourism, local enterprise, services and renewable energy to both complement the surviving elements of a restructured agri-business/natural resource sector and provide new employment opportunities.

7.6.15 From a policy perspective they are also important as they constitute a sustainable provision of retailing, removing the need to travel and also thereby reducing levels of congestion. It is unlikely that the scale of development in these centres will ever be such that it will undermine the continued vitality and viability of any higher order centres, or other centres at the same level in the retail hierarchy due to the distance between centres. Whilst it is unlikely that these centres will attract sufficient expenditure to support large scale provision of retail or comparison goods, they remain an important focus of the community and consequently their continued vitality and viability should be supported.

7.6.16 In the smaller rural centres of the County, a positive approach to promoting appropriate retail provision, in keeping with the scale and character of the town/ village, will be supported.

Retailing in Rural Areas

7.6.17 In accordance with the Retail Planning Guidelines, retailing in rural areas should generally be directed to existing settlements; development for this purpose in the countryside should be resisted. It is recognised, however, that there may be exceptional circumstances where the development of certain types of retail units in rural areas could be acceptable. The retail units in question could be:

- a retail unit which is ancillary to activities arising from farm diversification;
- a retail unit designed to serve tourist or recreational facilities, and secondary to the main use;
- a small scale retail unit attached to an existing or approved craft workshop retailing the product direct to the public; and/or
- a small scale retail unit designed to serve a dispersed rural community.

7.7 OVERALL CONCLUSIONS

7.7.1 Waterford City is the primary tier in the retail hierarchy and the most significant urban centre in the County. However, the retail role of the City is vulnerable and it is envisaged that its role and function as the major retail destination in the region

will continue to erode unless there is significant investment and redevelopment in the prime city centre retail core in the short term.

7.7.2 The City is under increased threat from competing centres, not only in the immediate region, but also at a wider level from Kilkenny, Cork and Dublin. The accessibility of these latter destinations has been greatly enhanced by the completion of the M9 Motorway and the N25 upgrade. In this regard there is a significant threat that there may be further leakage of expenditure, and in particular comparison expenditure outside of the County.

7.7.3 The City is underperforming in its role as Gateway City and does not have the retail offer and attraction of other gateway Cities such as Cork Galway and Limerick. The City lacks significant retail attractions and needs to develop an enhanced range of new larger department variety stores coupled with high street fashion brands sited in key locations. It is envisaged that this type of development would act as a catalyst for further development and complement the range of independent operators currently represented in the City.

7.7.4 This report has identified that Waterford has an attractive and vibrant City Centre and many positive attractions. However, there is significant room for improvement and this section of the report recommends a suite of measures and actions that should be undertaken to continue to develop, enhance and reinforce the retail profile and function of Waterford City. There are many opportunities that the City can exploit in terms of regeneration of key brownfield sites within the City Core and the further development of the City Quays. Some edge of centre sites have also been identified for specific redevelopment opportunities.

7.7.5 Actions and measures also include specific positive interventions by the Council in terms of environmental improvements and further civic enhancement works, as well as more radical suggestions such as review of rate bases and car parking charges in the City Centre. Perhaps a more pragmatic and planned approach to incentivise occupancy is to identify a zone within the city/town within which rates will be controlled. This would marry well with a rent controlled strategy outlined above, thus bringing retailing and consumer life back to a specified zone within the town centre. The rates control must clearly specify the maximum “commencing rates” which can be applied on a premises and guarantee that rates will grow in line with the consumer price index within this zone over time. The agreed rates level would apply to all tenants, new and old, who trade within the controlled zone.

7.7.6 The provision by the Local Authority of a rent and rates controlled retail area, where only owner occupiers can trade from, may also assist, particularly with aspects relating to placemaking and distinctiveness. A case in point is Cork’s English Market which imposes a ceiling on rents and rates and insists on owner occupier tenants. However, it is noted that such a zone would have to be owned by the Local Authority, if not, some incentive would have to be provided to the private landlord.

7.7.7 These measures however will be necessary to protect and develop the role of the City Centre and ensure that it can compete effectively and develop into a retail destination commensurate with its status as a Gateway City.

7.7.8 In terms of the suburban areas of the City, it is clear that these are well served by a range of neighbourhood, district and retail warehouse development. Again measures and recommendations have been made in relation to these centres and in particular it is detailed that care should be taken to strictly control the extent of comparison floorspace that is developed in such centres in order to protect the primacy of Waterford City Centre. Some centres would benefit from environmental improvements whilst care must be taken with yet undeveloped centres to ensure that that they are appropriately linked to their surrounding residential area and provide a focus for the community.

7.7.9 Dungarvan, with its extensive rural hinterland, has a strong local market share and performing well in retailing terms, with relatively little vacancy levels within its core retail area. The town is well presented and has a thriving food and beverage sector which is contributing to the vibrancy of the town. There is potential to further expand and develop its tourism potential, and this in turn would support the development of some additional comparison floorspace in Dungarvan.

7.7.10 Tramore has seen a significant expansion in its convenience retail offering, and has advanced to the stage of largely meeting its own convenience demands of the resident population. Tramore has also greatly expanded its tourism offering in recent years, which has allowed the tourism season to extend into the shoulder months beyond the core summer season. While most of Tramore's demand for comparison shopping is to be found in Waterford city, the potential does exist for the development of niche comparison shops to complement a small number of boutiques and bridal boutiques attracting a regional clientele and a growing artisan food retail sector.

7.7.11 In relation to the smaller towns and villages across the county, the retail planning process must endeavour to maintain and grow their local distinctiveness. In order to support, enhance and diversify our rural towns and villages there is potential to support the delivery of an alternative and distinct offering to customers based on local distinctiveness. Rural villages have the potential to develop a sustainable network of vibrant rural villages throughout the County that can drive social and community development, new commercial rural businesses, and this should be supported through various Development Plan policy and objectives.

7.8 VISION FOR THE FUTURE

7.8.1 The future vision for Waterford City in retailing terms is:

The development of compact, accessible and vibrant City Centre that harnesses the full potential of its unique riverside setting, by developing its North & South Quays; that is a destination City in its own right; that offers a unique, distinctive and diverse range of independent, national and international retailers to serve the needs of its regional catchment and that the City is developed fully in accordance with the policies and objectives set out in the National Development Plan and Regional Spatial & Economic Strategy.

BOX 7.2: SUMMARY OF KEY ACTIONS AND POLICIES

City Centre

- Promote the development of specific opportunity City Centre sites and other identified edge of centre sites for appropriate city centre retail development.
- Identify specific derelict and obsolete sites for targeted renewal.
- Promote appropriate infill development with flexible ground floor uses.
- Promotion of residential development and tourism and educational facilities in the City Centre.
- Consideration of the evening and night-time economy.
- Preparation of detailed design guide regarding shop fronts.
- Promotion of the Living Over the Shop Initiative.
- Investigate feasibility of a Business Improvements District Scheme.
- Investigate the feasibility of preparing a Special Contribution Scheme for City Centre management initiatives and ongoing improvements to the public realm.
- Review parking tariffs in the City Centre.
- Promote ongoing Environmental Improvements to the Public Realm.
- Promote mixed uses schemes with an element of After Hours Activity to ensure vitality and viability in the City Centre in the evening.
- Prepare a detailed Environmental Improvement Scheme for the City Centre.
- Implement City Centre Litter Management Plan.
- Prepare Action Plan for the City Quays to include measures to improve public realm, car parking enhanced pedestrian connectivity, traffic calming etc.
- Consider the extension of the Area of Special Planning Control for the prime retail areas of the City.
- Promote effective development management to discourage over concentrations of particular types of activities e.g. fast food outlets in particular areas of the City.
- Improving accessibility to the City Centre through a range of measures, actions and initiatives.

Dungarvan & Tramore Town Centres & District/Suburban Centres

- Promote the ongoing upgrading and maintenance of Town Centres of Dungarvan & Tramore and of existing District/Suburban Centres in the city.
- Prepare Action Brief for Lisduggan for interim environmental improvement works pending its redevelopment.
- Discourage the development of higher order comparison floorspace in District/Suburban Centres to protect the primacy of the City Centre.

Neighbourhood Centres

- Encourage the continued development and upgrade of neighbourhood centres in the City.
- Promote neighbourhood facilities in areas targeted for residential expansion and in large employment/industrial zones to serve the day to day shopping needs of employees.
- Prepare action brief for Cleaboy and Kilcohan for ongoing environmental improvement works to the public realm.
- Prepare design brief for proposed Knockboy neighbourhood centre. Restrict the scale of convenience floorspace at this centre to 1,500 sq. metres net.
- Update Kilbarry/Ballybeg Action Area Plan to investigate the opportunities for further neighbourhood centre and commercial development and the better integration of the existing Tesco development with the surrounding residential communities.
- Restrict the extent of convenience floorspace at Carrickpheirish to 3,000 sq. metres net
-

Retail Warehousing

- Limited future retail warehouse development to be to be directed to the planned and existing retail parks in the City, Dungarvan and Tramore in line with the retail floorspace projections.

Local/Village Shops

- Promote the development of local shops in the towns and villages and ensure the preservation of Ballybricken as an important local retail destination.
- Support the delivery of an alternative and distinct offering to customers based on local distinctiveness in the county's smaller towns and villages.
- Promote the potential of rural villages to develop a sustainable network of vibrant rural villages throughout the County that can drive social and community development, new commercial rural businesses

Rural Areas

- Other than in exceptional circumstances, retailing in rural areas should generally be directed to existing settlements

CHAPTER 8

Criteria and Actions for Assessing Future Retail Development Proposals

8.1 INTRODUCTION

8.1.0 The principal aim of this chapter is to provide policy recommendations regarding the assessment of future planning applications for retail development.

8.1 CRITERIA FOR ASSESSING FUTURE RETAIL DEVELOPMENT

8.1.1 All applications for significant retail development should be assessed against a range of criteria. These criteria are set out below. It should be noted that it is not appropriate to assess all applications for new retail development against all the criteria, particularly developments which are clearly in accordance with strategy in Section 8 and small scale developments (less than 1,000 sq. metres –net area.)

8.1.2 It is recommended that retail impact statements should not necessarily be required for developments less than 1,000 sq. metres – net area, unless they are located outside a city/town centre and is considered that they would have a material impact on the vitality and viability of an existing retail centre. Nor should retail impact statements be required for retail developments that are located within identified retail centres in a development plan including town centres, district/suburban centres and neighbourhood centres and are in accordance with the strategy.

8.1.3 Where the location of a proposed retail development submitted on a planning application has demonstrated to the satisfaction of the planning authority that it complies with the policies and objectives of a development plan and/or relevant retail strategy to support city and town centre, additional supporting background studies such as a demonstration of compliance with the sequential approach, below, or additional retail impact studies are not required.

8.1.4 However, where the location of a proposed retail development submitted on a planning application is not consistent with the policies and objectives of the development plan and/or relevant retail strategy to support the city and town centre, then that development proposal, must be subject to the Sequential Approach and its policy principles and order of priority set out below and any departure from these principles must be justified.

The Sequential Test

8.1.5 The order of priority for the sequential approach is to locate retail development in the city/town centre (and district/suburban centre if appropriate), and only to allow retail development in edge-of-centre or out-of-centre locations where all other options have been exhausted. Where retail development in an edge-of-centre site is being proposed, only where the applicant can demonstrate that there are no sites or potential sites including vacant units within a city or town centre or within a designated district/suburban centre that are (a) suitable (b) available and (c) viable, can that edge-of-centre site be considered.

8.1.6 Where retail development on an out-of-centre site is being proposed, only in exceptional circumstances where the applicant can demonstrate that there are no sites or potential sites either within the centre of a city, town or designated district/suburban centre or on the edge of the city/town or district/suburban centre that are (a) suitable (b) available and (c) viable, can that out-of-centre site be

considered. In relation to whether sites can demonstrate suitability, availability and viability, the following should be taken into account in implementing the sequential approach.

8.1.7 a) **Suitability**: Matters to be considered include whether or not the development is consistent with development plan objectives, in particular zoning objectives, current land use activity in the vicinity of the site, size, capacity to accommodate development, traffic and transportation issues; and/or;

8.1.8 b) **Availability**: this criterion relates to site ownership, ease of assembly and timing. Sites must be genuinely available for development at the time that site acquisition/ assembly begins or within a reasonable time-frame; and/or;

8.1.9 c) **Viability**: the financial viability of a development is also a key consideration. The cost of site acquisition in the town centre may make a proposal unviable and force investors to look elsewhere in the area. Excessive development costs relative to values are also a consideration. For example, the requirement to deal with remediation for a brownfield site may have the potential to make a proposal unviable.

8.1.10 All applications for large retail developments in out of centre or edge of centre locations (in excess of 1,000 sq. metres – net area) should be subject to the sequential test. Where an application for a large comparison retail development (in excess of 1,000 sq. metres – net area) outside of the city/town centre is lodged to the planning authority, the applicant should demonstrate that all city/town centre options have been assessed and evaluated and that flexibility has been adopted by the retailer in regard to the retail format. The exception to the approach is retail warehouse development that are restricted to the sale of bulky household goods as it is identified in the Retail Planning Guidelines that such developments are better suited to peripheral locations on the edge of a town centre. Such development should be targeted to one of the 4 identified retail parks in the City (Butlerstown, Cork Road, Airport Road & Six Crossroads) and in Shandon & Dungarvan Business Parks.

8.1.11 In addition to the sequential test, the Retail Planning Guidelines recommend that the applicant should address the following criteria:

- Support the long term strategy for town centres as established in the development plan and not materially diminish the prospect of attracting private sector investment into one or more town centres.
- Cause an adverse impact on one or more town centres, either singularly or cumulatively with recent development or other outstanding planning permissions, sufficient to undermine the quality of the centre or its role in the economic and social life of the community.
- Diminish the range of activities and services that a town centre can support.
- Cause and increase in the number of vacant properties in the primary retail area that is likely to persist in the long term.
- Ensure a high standard of access both by public transport, foot, private car so that the proposal is easily accessible by all sections of society.
- Link effectively with an existing town centre so that there is likely to be commercial synergy.

8.1.12 Other criteria that should be considered in the assessment of significant applications include:

- That there is a quantitative and qualitative need for the development.
- The contribution of the development towards the improvement of the city/town centre in terms of urban design.
- The contribution of the development towards site or area regeneration.
- The role of the development in improving the competitiveness of the city/town against other competing centres.
- Compliance with development plan policies and objectives.
- The development is easily accessibly by the elderly and disabled/mobility impaired.

8.2 CRITERIA FOR ASSESSING PARTICULAR TYPES OF DEVELOPMENT

8.2.1 This section sets out the criteria for assessing planning applications for different types of retail development.

Convenience Food Shopping

8.2.2 Where practicable, new convenience retail development should be located within the city centre or within a designated neighbourhood or district/suburban centre serving a large residential community within Waterford City and within the town centres in the County. Accessibility is the key to the success of such developments and such proposals should be accessible by all modes of transport particularly pedestrians and public transport. As large convenience shops attract customers carrying out large weekly shopping, it is important that such development should also be served by adequate car parking.

8.2.3 Edge of centre locations for such developments may be appropriate where there is limited room for expansion within an existing centre and where such development is located on appropriately zoned commercial lands. Out of centre sites for this type of retail development require careful assessment, subject to the sequential test assessment and their potential impact on nearby centres.

8.2.4 Within neighbourhood centres it is recommended that the size of an anchor convenience facility should not exceed 1,500 sq. metres net. Larger stores should be directed to planned and existing district/suburban centres and the city centre in Waterford city and to Dungarvan and Tramore.

8.2.5 In areas planned for residential expansion, the development of a neighbourhood centre anchored by a convenience supermarket is prudent. Modest convenience stores may also be appropriate in large industrial /employment zones where they anchor a neighbourhood centre serving the daily shopping needs of workers and employees.

District/Suburban Centres

8.2.6 It is unlikely that there will be a requirement for further district/suburban centre development in the City due to the population projections predicted in the Regional Spatial & Economic Strategy and the existing number and spatial distribution of such centres. Capacity is likely to be met in the vacant Ferrybank development and at Lisduggan which has significant potential for redevelopment and permission for expansion.

8.2.7 District/suburban shopping centres play an important role in the City retail offer, especially in the convenience provision within the City.

8.2.8 District/suburban centres should be of an appropriate scale to the City and its population and should be characterised by convenience retail, retail services, community and social facilities and a limited range of low and mid order comparison goods. There should be a clear presumption against the development of high order comparison retailing in district/suburban centres in Waterford due to their potential adverse impact on the City Centre.

Retail Warehouse Parks

8.2.9 It is recognised in the Retail Planning Guidelines that in general retail warehouses do not fit easily into town centres given their size requirements and the need for good car parking facilities. It is therefore appropriate to group these facilities into planned retail parks on the edge of the town centre if such sites area available or in an out of centre site, if the applicant can demonstrate that there are no suitable edge of centre sites available. Criteria for assessing retail warehouse applications include scale and design of the development, appropriate vehicular access and the quantitative need for such development.

8.2.10 As stated in the Retail Planning Guidelines, individual retail units should not be less than 700 sq. metres and not more than 6,000 sq. metres in size. These figures are gross floor area, including storage and garden centres. In respect of retail warehouse developments outside town centres, it is essential that the range of goods sold is restricted by planning condition to bulky household items such as DIY products, carpets, furniture, and electrical goods. Failure to do so may have a negative impact on the vitality and viability of the town centre area.

8.2.11 It is likely that there will be limited demand for further retail warehousing floorspace in Waterford city or county in the short term.

Factory Outlet Centres

8.2.12 It is stated in the Retail Planning Guidelines that the success of these centres depends on drawing customers and visitors from a wide catchment area, including tourists, and there may be implications for existing tourist centres and established town centres, even those some distance from the proposals. Criteria for assessing such development should therefore focus on whether such a development is located in a strategic location to capture expenditure from a very wide catchment area. Such development schemes should preferably be located within or immediately adjacent to an existing city/town centre. Out of centre sites are generally not appropriate for this type of development. Again, as such facilities are primarily geared towards the car borne customer, vehicular accessibility and

adequate car parking are key factors. Consideration must also be give to the range and type of goods sold at such centres to ensure that they do not compete with the traditional town centre area.

Local/ Village Shops and Petrol Filling Stations

8.2.13 Local shops play an important role in providing for daily top up shopping and supporting the "10 minutes" neighbourhoods and are important as they are universally accessible to all members of the community. The development of such local shops should be encouraged in the residential areas of the City and in the smaller towns and villages throughout the County. Such developments should be designed to a high standard and be easily accessible to all sections of society.

8.2.14 Towns, villages and rural areas also need to be supported in the development of new areas of economic activity, such as local value added enterprise activities, tourism, local enterprise, services and renewable energy to both complement the surviving elements of a restructured agri-business/natural resource sector and provide new employment opportunities.

8.2.15 In the smaller rural centres of the County, a positive approach to promoting appropriate retail provision, in keeping with the scale and character of the town/ village, will be supported.

8.2.16 The size of such retail units should not exceed 100 sq metres.

Retailing in Rural Areas

8.2.17 In accordance with the Retail Planning Guidelines, retailing in rural areas should generally be directed to existing settlements; development for this purpose in the countryside should be resisted, other than in exceptional circumstances where the development of certain types of retail units in rural areas could be acceptable (as outlined in Chapter 7).

KPMG Future Analytics

Waterford Metropolitan Area Joint Retail Strategy

On Behalf of Waterford City and County Council
and Kilkenny County Council

Appendix 4A WCC Dev Plan 2022 - 2028
Variation no. 1 August 2025

2025

Document review and approval

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1.0 Introduction

1.1 Overview

This Joint Retail Strategy for the Waterford Metropolitan Area (the Strategy) has been prepared by KPMG Future Analytics (KPMG FA) on behalf of Waterford City and County Council (WCCC) and Kilkenny County Council (KCC).

Working closely together, both local authorities and KPMG FA have prepared the Strategy in accordance with the provisions set out in National and Regional Policy and in particular the 'Retail Planning Guidelines for Planning Authorities' published by the Department of the Environment, Heritage and Local Government (DoEHLG) in 2012.

This Strategy has been prepared in accordance with the Waterford Metropolitan Area Spatial Plan ('Waterford MASP') policy objectives of the Southern Regional Assembly Regional and Spatial Economic Strategy ('Southern RSES'). It is an objective of the RSES to prepare a '*Joint Retail Strategy for the Waterford Metropolitan Area in accordance with the Retail Planning Guidelines'*.

The RSES states that the Strategy shall include the defined Core City Shopping Area, Suburban/District Shopping Centres and a map to indicate sustainable travel routes to/from each shopping area, which prioritise cycle and pedestrian access over cars.

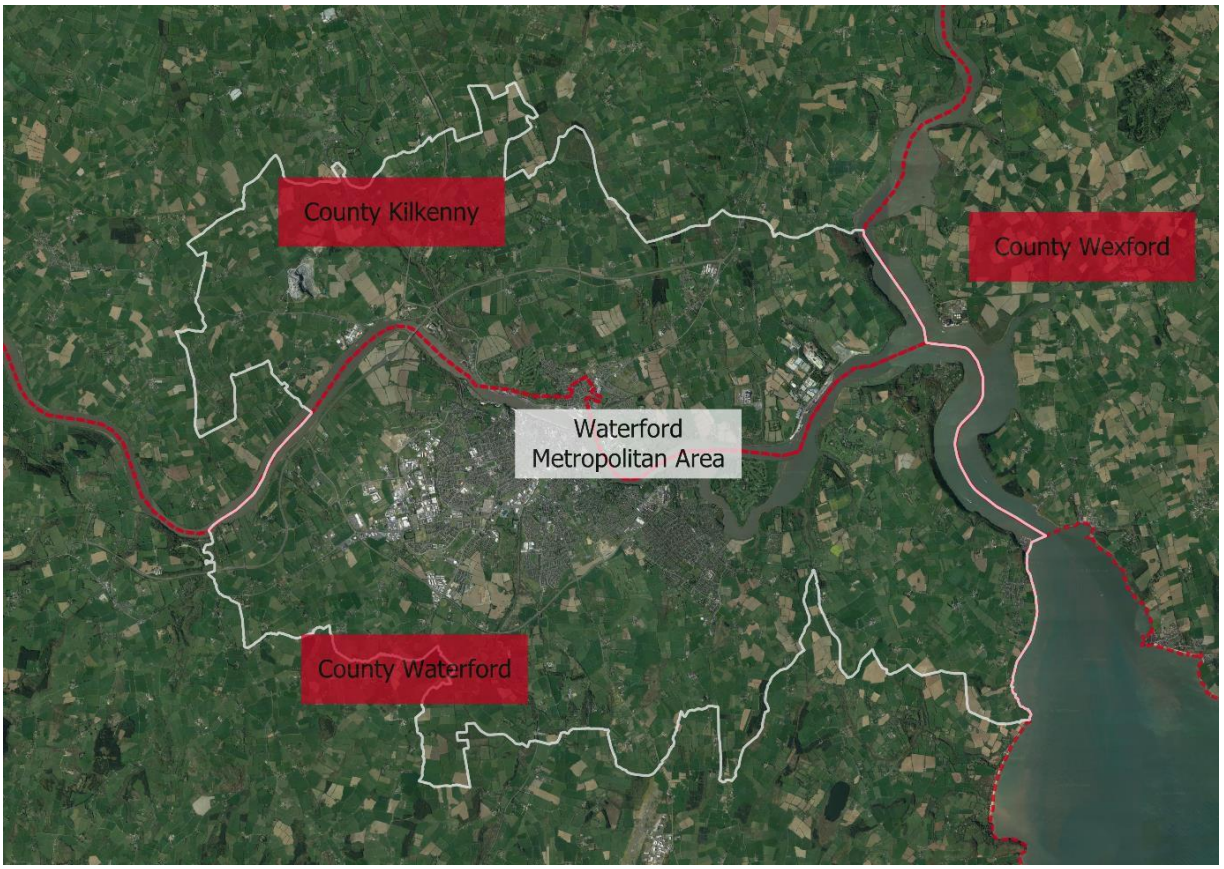


Figure 1 Waterford Metropolitan Area Boundary (Source: KPMG Future Analytics, based on Google Maps)

This is further supported in Policy Objective 'W City Retail 08' of the Waterford City and County Development Plan 2022-2028 ('WCC CDP') which states

> "*we will prepare a Joint Retail Strategy for the Waterford Metropolitan Area in conjunction with Kilkenny County Council/adjoining relevant local authorities and the Southern Regional Assembly, in accordance with the Retail Guidelines (2012) and Waterford MASP policy*

Objective 19, and we will vary the Development Plan as necessary following completion of the Joint Retail Strategy."

1.2 Defining the Study Area and Catchment Area

The Study Area for the Strategy is comprised of the Waterford Metropolitan Area ('Waterford MA)', as defined in the MASP which includes Ferrybank, within the Kilkenny County Council administrative area.

The Waterford MA has an area of 156 km² and comprises of the north-eastern portion of County Waterford but also includes southern pockets of County Kilkenny. To the east, across the estuary of River Barrow it borders County Wexford. Waterford Metropolitan Area is characterised by River Suir which crosses the area from west to east and joins River Barrow at the eastern border. While the riverside areas are located at close to sea level, the terrain rises to the north and south of the Suir and reaches elevations of beyond 100 metres.

The Waterford MA includes Waterford City and its immediate rural surroundings. As of 2022, the population of Waterford MA stood at 66,555 persons, of which 60,079 persons (90%) lived in the City of Waterford. Approximately 20% of the area forms part of Waterford City, defining the remaining 80% as predominantly rural. In total, Waterford MA is comprised of 45 Electoral Districts (EDs), of which 41no are in County Waterford[1] and 4no are in County Kilkenny[2].

The catchment area of the Waterford MA is considered in Chapter 7.

1.3 Approach

The approach undertaken in preparing the Strategy establishes the retail market dynamics at play and the retail needs of the study area's residents. It has been prepared in keeping with the local, regional and national guidelines in its approach to establishing the quantitative need underpinning existing and future retail capacity.

The methodology in Table *1* has been applied throughout this Study to establish the quantitative assessment of future retail floorspace requirements in accordance with the Retail Planning Guidelines 2012 and recommendations for the future distribution of floorspace taking account of the existing retail hierarchy in the Study Area.

Table 1 Methodological Approach

Stage	Overview
Baseline Data & Planning Policy Analysis	A baseline review of existing retail strategies including associated existing and relevant National, Regional, County and local planning policy documentation is summarised in **Chapter 2** and further detailed in **Appendix 1**.
Stakeholder Consultation	Details of stakeholder consultation undertaken by KPMG-FA in support of this Strategy including the retail survey and interviews with key stakeholders are presented in **Chapter 4** and **Appendix 2.**

[1] Ballybeg North, Ballybeg South/ Ballynaneashagh, Ballybricken, Ballymaclode, Ballynakill (227012), Ballynakill (228005), Ballytruckle, Bilberry, Centre A, Centre B, Cleaboy, Custom House A, Custom House B, Faithlegg, Farranshoneen, Ferrybank, Gracedieu, Grange North, Grange South, Grange Upper, Kilbarry (227051), Kilbarry (228019), Killoteran, Kingsmeadow, Larchville, Lisduggan, Military Road, Morrisson's Avenue East, Morrisson's Avenue West, Morrisson's Road, Mount Sion, Newport's Square, Newtown (228029), Park, Poleberry, Roanmore, Shortcourse, Slievekeale, The Glen, Ticor North, Ticor South.

[2] Aglish, Dunkitt, Kilculliheen, Rathpatrick.

Stage	Overview
Identification of sustainable travel routes	An assessment of sustainable travel routes to and from each designated retail centre in the Study Area and recommendations for enhancing sustainable travel in alignment with the 10-minute neighbourhood concept are presented in **Chapter 6.**
Spatial Retail Core Boundaries and Qualitative Assessments	An evaluation of the spatial boundaries of the Waterford Retail Core Area and district centres carried out in line with the Retail Planning Guidelines is presented as part of the retail health checks in **Chapter 5**, details are provided in **Appendix 3** and recommendations are set out in **Chapter 8**. The retail centre boundary review has been informed by site visits and GIS analysis of the distribution of occupied and vacant retail units.
Assessment of Retail floorspace & GIS Modelling	An assessment of retail floorspace requirements over the study period is presented in **Chapter 7** which is informed by a detailed analysis of existing retail floorspace in Waterford MA including that which is occupied and vacant and a review of committed retail floorspace, including that which is under construction and granted.
Guidance on Location and Scale of Retail Development	Guidance on the appropriate location and scale of retail development to support the respective retail functions of the City Centre and district centres in line with the retail hierarchy is provided in **Chapter 8** together with specific policy recommendations.
Guidance on Recommendations, Actions and Policies	Recommendations are provided in **Chapter 8** to consolidate the respective retail functions of the City Centre and district centres in Waterford MA to reinforce the settlement hierarchy. For Waterford City Centre a series of priority actions are proposed which seek to create the necessary conditions to foster a vibrant retail environment and create a high-quality visitor experience for all.

This Strategy has been prepared in the context of the published Waterford City & County Retail Strategy 2020 ('WCC Retail Strategy') and the Kilkenny County Council Retail Strategy 2020 ('KCC Retail Strategy') which set out the retail strategy for the respective Local Authority areas. This Strategy has been prepared to sit alongside and to be consistent with the overall objectives of these published strategies.

Section 5.0 of this Strategy provides an updated health check assessment of Waterford City Centre and new health check assessments for Tier 2 (L2) District/Suburban Centres in the Waterford MA including Ardkeen, Kilbarry (Tramore Road), and Waterford Shopping Centre (Lisduggan) in WCCC and the Ferrybank Centre in KCC. Further, updated guidance on future retail development in the Tier 2 (L2) centres is provided in Section 8.0 of this Strategy.

Section 7.0 of this Strategy provides quantitative retail floorspace requirements for the Waterford MA up to 2034.

This Strategy identifies a requirement for additional convenience and comparison floorspace in the Waterford MA over the study period. However, consistent with the WCC Retail Strategy, no additional requirement for bulky floorspace has been identified up to 2034.

It should be noted that, due to the different study areas and study periods adopted, the quantitative retail floorspace requirements in this Strategy differ from the previous WCC Retail Strategy. However, retail floorspace requirements should be treated as minimum rather than maximum figures. Retail

floorspace requirements provide indicative targets required to meet the needs of the existing and future population based on latest population figures at the time of publication.

Section 8.0 of this Strategy provides guidance on the location and scale of retail development to meet the projected retail floorspace requirements in a manner which supports the respective retail functions of the City Centre and district centres in line with the established Waterford MA retail hierarchy.

Consistent with the WCC Retail Strategy, this Strategy directs new comparison retail floorspace primarily to Waterford City Centre as the primary destination for medium and high order comparison retail in the Southeast Region. Consistent with the objectives of the WCC CDP, this Strategy recommends that retail requirements should be met, in part, through the utilisation of vacant commercial floorspace in suitable locations. Furthermore, this Strategy recommends a series of actions to help create the necessary conditions to attract retailers and shoppers to the City Centre to support the utilisation of vacant commercial floorspace.

Consistent with the WCC Retail Strategy, this Strategy directs new convenience retail floorspace to defined centres in the established Waterford MA retail hierarchy and recommends that the scale of new floorspace is consistent with the position and function of the centre within the retail hierarchy.

This Strategy sets out proposed planning policy recommendations in Section 8.2 to integrate the overall recommendations of the JRS into the WCC CDP as appropriate.

2.0 Policy Overview

This Strategy has been prepared in accordance with the strategic policy direction established in National, regional, and local planning policy. In doing so, the Strategy aims to ensure a balanced and comprehensive approach is taken to retail development in the Waterford MASP region, taking into consideration external influences and other economic sectors. A detailed overview of the policy context within which this Joint Retail Strategy for the Waterford Metropolitan Area is outlined here, with Appendix 1 containing the full policy review.

2.1 Summary Overview

The **National Planning Framework – Ireland 2040 Our Plan** (NPF) is a high-level strategy that will shape Ireland's growth and development up to the year 2040. It sets out a population target for the Southern Region of 340,000-380,000 additional people i.e., a population of almost 2 million by 2040.

This growth will be realised through developing and implementing comprehensive and strategic metropolitan area spatial plans for Cork, Limerick and Waterford cities that secure long-term transformational and rejuvenation-focused city development, with a special emphasis on capitalising on the potential of underutilised and publicly owned and centrally located sites and activating their potential to boost the population and economic output levels of city centre areas as drivers for wider regions.

Waterford is the principal urban centre in Ireland's south-east and is unique in having a network of large and strong regional urban centres in proximity within each of the surrounding counties that both complement the role of Waterford and perform strong regional and local economic and developmental roles for their own areas.

The key challenge for Waterford is to build at scale and enhance urban quality through employment-led growth. The City's existing employment base included pharma, med-tech and engineering/advanced manufacturing sectors as well as emerging indigenous enterprises. There is capacity to build on all these strengths while enhancing Waterford's small-city attractiveness and quality of life.

The NPF is currently being revised and has been informed by updated demographic and econometric modelling developed from the final Census 2022 data prepared by the ESRI (July 2024). Public Consultation on **Draft NPF Revision** closed in September 2024 and the Government approved the **Revised NPF** on 8th April 2025 which, subject to the approval of both Houses of the Oireachtas, will conclude the NPF revision process. Notably, the minimum 2040 population growth target for Waterford City and Suburbs has been revised upwards from 85,000 in NPF 2018 to 88,000 in the Revised NPF.

A revised '**NPF Implementation Roadmap'** will be published alongside the final Revised NPF setting out guidance to ensure that NPF population projections are translated into revised Regional and County population targets in a consistent manner through the statutory plan-making process.

The Retail Planning Guidelines and Retail Design Manual were published in 2012 by the Department of the Environment, Community and Local Government and provide a framework for regional and Local Authorities in preparation of policies and County Development Plans, to allow Planning Authorities assess planning applications and to assist developers and retailers in formulating development proposals.

The guidelines key objectives are to ensure retail development is plan-led, enabling the sequential progress of quality developments, in suitable locations with quality urban design. These new developments should prioritise the vitality of City/Town Centre and facilitate the shift towards easier access to retail via active and sustainable travel options.

From a national policy perspective, the Framework for Town Centre Renewal, the Town Centre First Policy and The Report of the Night-Time Economy Taskforce have all been reviewed for best practice models for developing vibrant city centres with a mix of retail, food and beverage, leisure and arts offerings.

The Regional Spatial and Economic Strategy (SRA RSES) for the Southern Region is a high-level document with the overarching aim of supporting the implementation of the NPF. It provides a strategic framework through which the policies and objectives of the NPF are delivered over a twelve-year period.

The SRA RSES promotes a co-ordinated, co-operative and collaborative approach between each of the Cities and Key Towns within the region through the establishment of Metropolitan Area Strategic Plans (MASPs) for Cork, Limerick-Shannon and Waterford Metropolitan Areas and the identification of several Key Towns. The central key objectives are to support the "Town Centre" first approach in the context of the retail hierarchy and promote the vitality and viability of existing centres by focusing development in them and encouraging a wide range of services, in a good environment which is accessible to all.

The **Metropolitan Area Spatial Plan (MASP)** provides a high-level strategic framework for the sustainable development of the Waterford Metropolitan Area based on the ambition for the City and Metropolitan area as an innovative centred, enterprising, University City with a diverse population, a vibrant cultural sector, a thriving economy, and a significant and substantial profile that brings European and International recognition. The RSES sets out an overall population target for the Waterford MA of 81,769 by 2031 with 87% of the additional population distributed in WCCC and the remaining 13% in the KCC share of the MA. These population targets have been agreed through consultation between the Regional Assembly, WCCC and KCC and form the basis of the population projections applied in the retail floorspace assessment model presented in **Chapter 7.**

The RSES, including the Waterford MASP, will subsequently be revised for consistency with the revised NPF including a review of population projections for the Waterford MA in line with the emerging NPF Implementation Roadmap'. **It is recommended that retail floorspace projections are updated as part of the SRA RSES review process to take account of agreed revised population targets for the Waterford MA.**

The **Waterford Metropolitan Area Transport Strategy (WMATS)** sets out the framework for an accessible, high-quality, and integrated transport network that provides for the travel demand and supports the sustainable growth of the Waterford Metropolitan Area as a major growth engine of the Southern Region, and an internationally competitive European City Region as envisaged by the National Planning Framework 2040.

As part of the policy review, we assessed the retail strategies for neighbouring counties for context beyond Waterford MASP area, these included the **Kilkenny County Council Retail Strategy 2021-2027,** the **Wexford Retail Strategy 2021-2027,** the **Cork Retail Strategy 2022-2028**, and the **Tipperary Retail Strategy 2022-2028.** Summaries of these documents are included in Appendix 1.

From a local policy perspective, both the **Waterford City and County Development Plan (WCC CDP) 2022-2028** and the **Kilkenny City and County Development Plan 2021 to 2027 (KCC CDP)** have been assessed as part of the policy review. The Development Plans and core strategy give support through relevant policy objectives to enable the delivery of the key growth enablers, and the transformational change required across Waterford City as envisaged in the NPF, RSES and MASP. Waterford City and County Council and Kilkenny County councils will implement the NPF, RSES and MASP through the Development Plan strategies and policy objectives over the period to 2027/2028 and pursue specific project investment through the National Development Plan, the Urban Regeneration Development Fund and other available funding mechanisms.

The **Kilkenny County Retail Strategy 2021-2027** and the **Ferrybank-Belview Local Area Plan 2017** highlight the ongoing issue in relation to the Ferrybank area, which is located in the far south of Kilkenny County on the border with Waterford County. Based on the anticipated growth in the area, Ferrybank's vacant Shopping Centre is designated as District Centre.

The North Quays Area of Waterford City received an SDZ designation in 2015 and planning policy relating to this site is contained in the **North Quays SDZ Planning Scheme 2018.** The SDZ site has a very significant presence in Waterford City, forming part of the **City Centre Retail Core Area** and being visible from the main northern approaches to the city and the South Quays. The **North Quays SDZ Planning Scheme 2018** makes provision for a minimum 20,000sqm and maximum 30,000sqm net additional comparison retail floorspace as well as a minimum 5,000sqm up to a maximum 70,000sqm food and beverage floor area.

3.0 Retail Drivers

3.1 Overview

This Chapter provides an overview of the broader demographic and economic trends which will drive retail spending patterns and trends across the Waterford MA Study Area across the study period.

3.2 Population and Households

3.2.1 Current Population and Distribution

The population living within the Waterford Metropolitan Area catchment remained flat between the 2011 census and the 2016 census with a population increase of just +0.35%. The catchment area population then grew by 5,754 people from 2016 to 2022 (from 59,854 to 66,555 persons), which represents a growth rate of 11.2% across the WMA, which is higher than the population growth of the state (8.2%).

The Figure below displays the distribution of age groups across the catchment area, for both genders. It illustrates a relative uniformity in age cohorts, though highlights the ageing trend of the population. The average age between 2016 and 2022 went from 37.2 to 38.6, with the 0 to 14 age cohort decreasing and the 65+ age cohort increasing. From a retail perspective, especially from a city centre instore retail perspective the 15 to 35 age cohorts are the key demographics.3 Between 2016 and 2022 the numbers of persons in the age groups 15-19 and 20-24 years have grown, the numbers of persons in the age groups 25-29 years and 30-34 years remained steady.

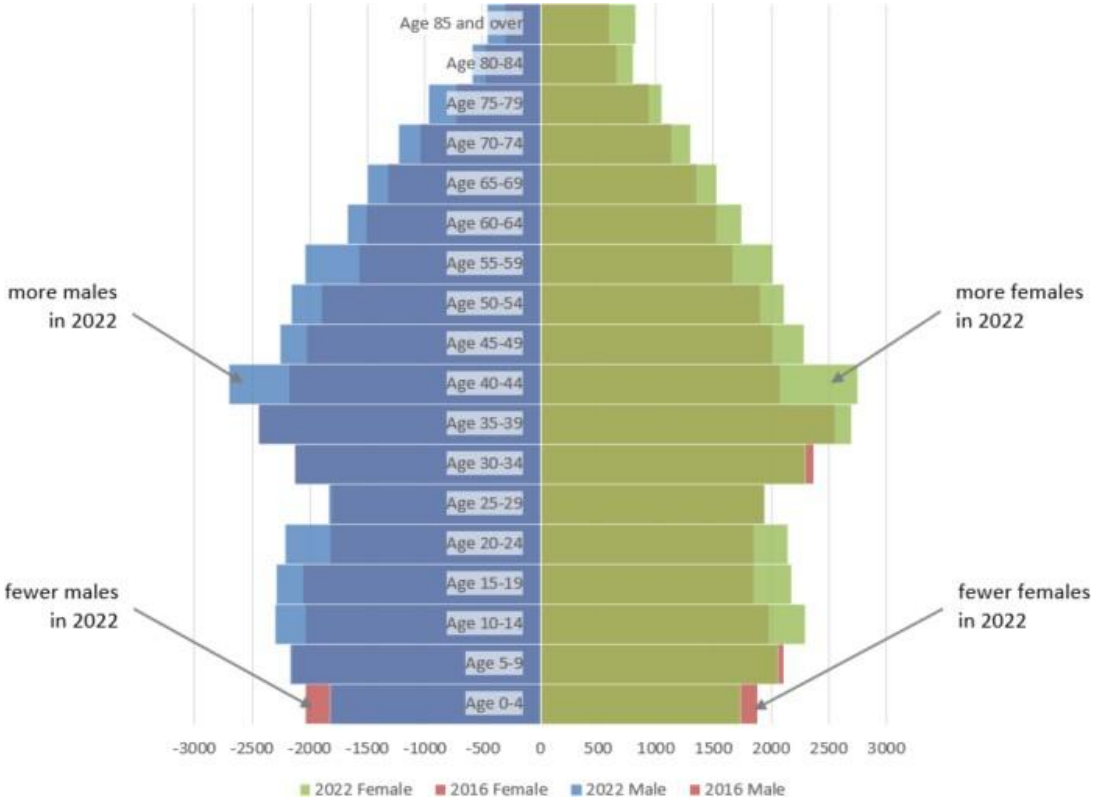


Figure 2: Population by age group within the Waterford Metropolitan Area 2016/2022. (Source: KPMG Future Analytics, based on CSO data)

[3] Central Statistics Office

The National Planning Framework (NPF 2024) projects a population growth for Waterford County of 14% to 16% out to 2026 and 18% to 24% to 2031 based on the 2016 census figures. Census 2022 shows that the population grew by approximately 10% in the intervening years which would align broadly with the NPF projections (upper variant).

The Waterford MASP area contains 25,425 households with an average of 2.55 people per household slightly lower than the average for the state (2.74 people). These households are comprised of 10.3% 'single' households and 77.3% 'married with children' households.

Figure 3 shows the breakdown of households within the Waterford MASP indicating a majority of multi person households are family households suggesting the existence of a significant consumer base for a variety of related retail offerings, e.g., supermarket, convenience, bulky goods and clothing.

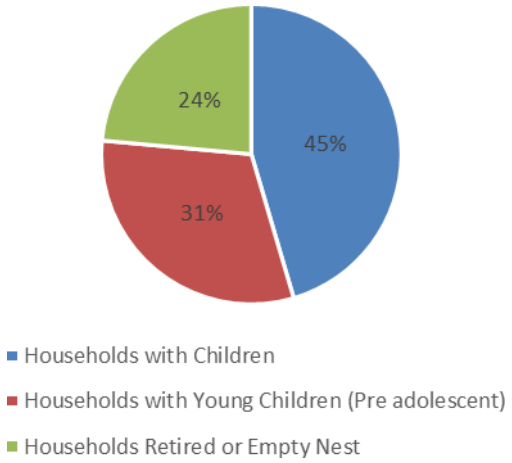


Figure 3: Household family cycle within the Water MASP. (Source: KPMG Future Analytics, based on CSO data)

54.9% of these households are owner occupied, which is significantly lower than the state figure of 65.9%. A further 20.7% private rented accommodation which is marginally higher than the state figure of 18%, with the remaining 18.3% of the population being in social housing, including socially rented accommodation, which is considerable higher than the state average of 10%. 30.5% of the householders in the catchment own their home outright, compared to 37% nationally. The total number of households in Housing Assistance Payment (HAP) schemes in Co. Waterford stood at 2,210 in 2022, approximately 10% lower than in 2020 and 2021 though a reduction does not necessarily point at an improvement of a household's economic status as reasons for leaving HAP schemes are manifold.[4]

3.2.2 Relative Affluence, Socio-Economic Grouping, Educational Attainment

Levels of affluence, socio-economic grouping and educational attainment are indicators for household income and expenditure in the retail sector.

The Pobal HP Deprivation Indices reveal a divide between more affluent areas in the eastern portions of the city and the rural areas of the metropolitan area, while large parts of the city are classified as below average/ disadvantaged. The Waterford Metropolitan Area is, just as Co. Waterford and Co. Kilkenny overall, classified as marginally below average.

[4] Households in HAP schemes can be either classified as social housing or private rented accommodation.

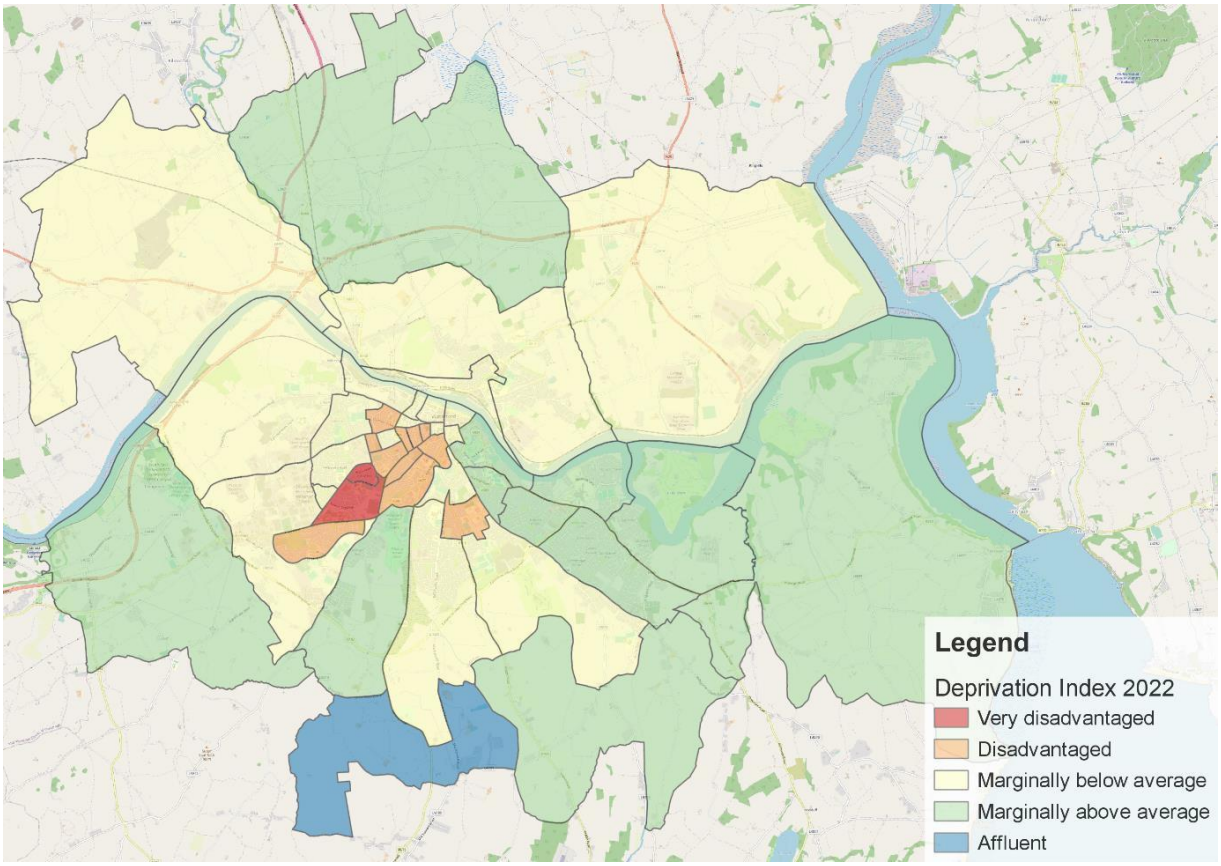


Figure 4: Pobal HP Deprivation Indices, 2022, ED level (Source: KPMG Future Analytics, based on Pobal HP Deprivation Indices data)

Statistics of educational attainment yield a similar picture. In 2022, 38% of residents in the Waterford Metropolitan Area had a third-level degree, significantly lower than the national average of 47%. The ratio of persons with a technical or vocational training as highest level of education was similar for both entities. In the Waterford Metropolitan Area, however, significantly higher percentages had a primary or secondary education only. The gaps remain pronounced even if the 'non stated' are excluded.

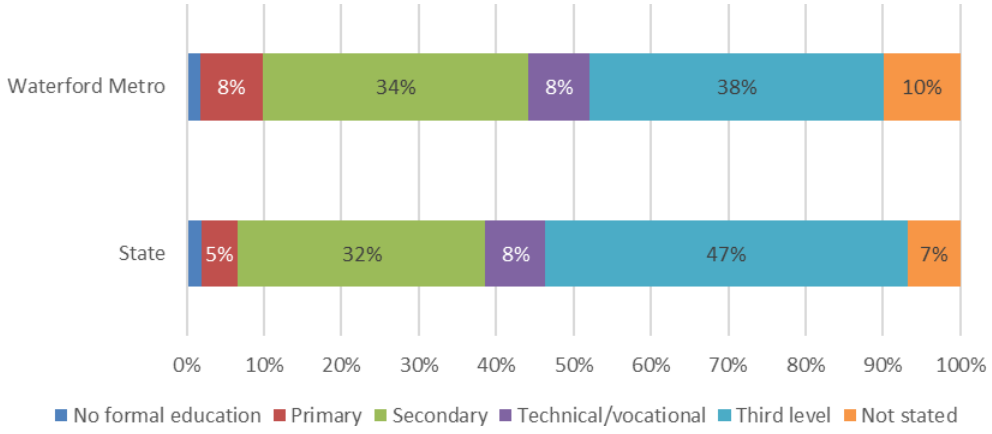


Figure 5: Percentages of Persons by Highest Level of Education, 2022 (Source: KPMG Future Analytics, based on CSO data)

There is significant variation between EDs, with highest levels of persons with a third-level degree in the central-eastern/ eastern parts of the city and most of the non-urban areas surrounding the city while

the lowest levels are concentrated in central-western portions of the city, including large parts of the city centre and the southern/ south-western urban neighbourhoods.

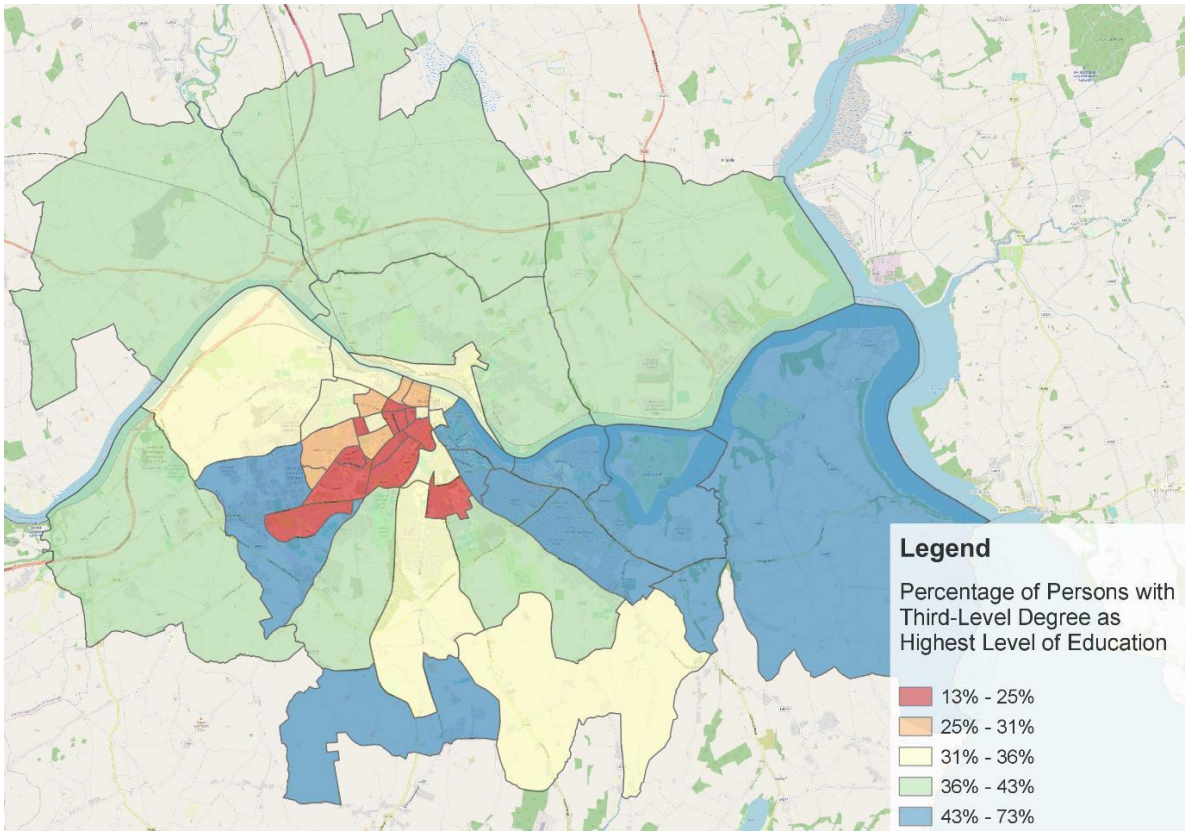


Figure 6: Percentage of Persons with Third-Level Degree as Highest Level of Education, 2022, ED level (Source: KPMG Future Analytics, based on CSO data / OpenStreetMap)

The described patterns are also reflected in the socio-economic groupings by reference person. The percentages of persons belonging to higher socio-economic groups A (Employers and managers), B (Higher professional), C (Lower professional), and D (Non-manual) is notably lower in the Waterford Metropolitan Area (total 53%) than in the State overall (57%).

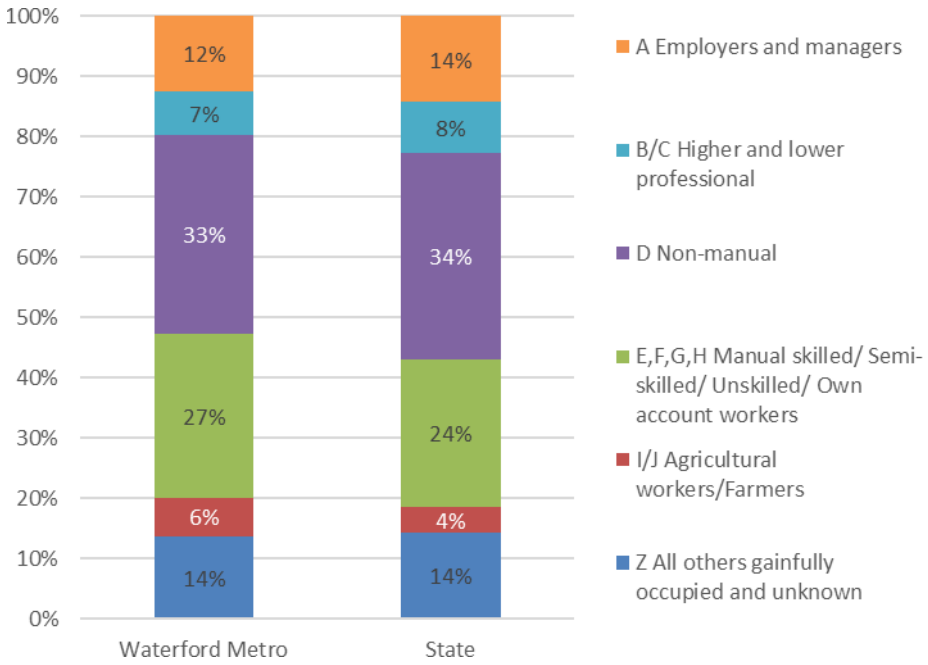


Figure 7: Percentages of Persons by Socio-Economic Groups (by Reference Person) (Source: KPMG Future Analytics, based on CSO data)

The spatial divide for socio-economic groupings within the Waterford Metropolitan Area broadly follows the pattern seen for educational attainment as the percentage of persons belonging to the two highest socio-economic groups A and B (by reference person) is high in the central-eastern/ eastern parts of the city and all of the non-urban areas surrounding the city, as opposed to large parts of the city centre and the southern/ south-western urban neighbourhoods.

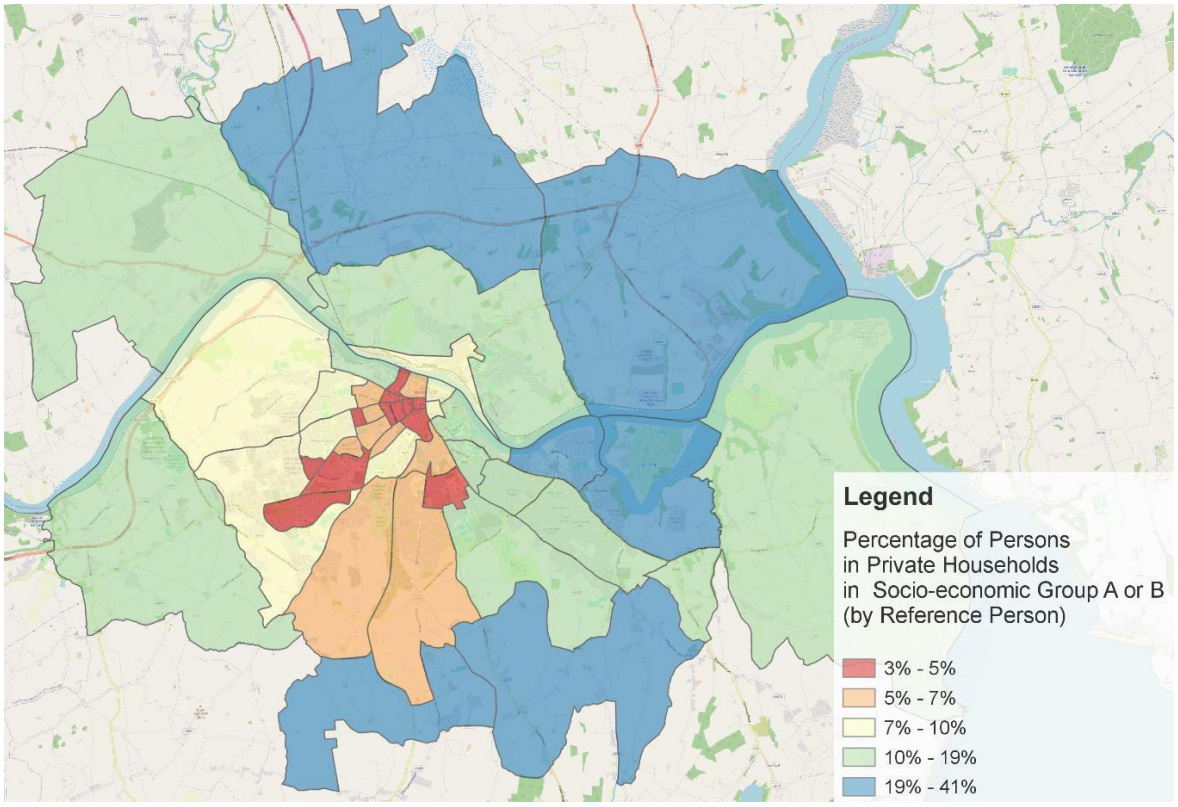


Figure 8: Percentage of Persons in Private Households in Socio-Economic Group A or B (by Reference Person) (Source: KPMG Future Analytics, based on CSO data / OpenStreetMap)

CSO figures indicate that unemployment dipped to a record low of 3.8 per cent for the State in September 2023. Economists consider an unemployment rate below 4 per cent to represent full employment. Strong employment conditions tend to support consumer confidence and retail demand, as people feel more secure about their employment prospects.

Census 2022 data suggest an unemployment rate[5] for Waterford Metropolitan Area of 6.7%, higher than the figure for the State of 5.1%.

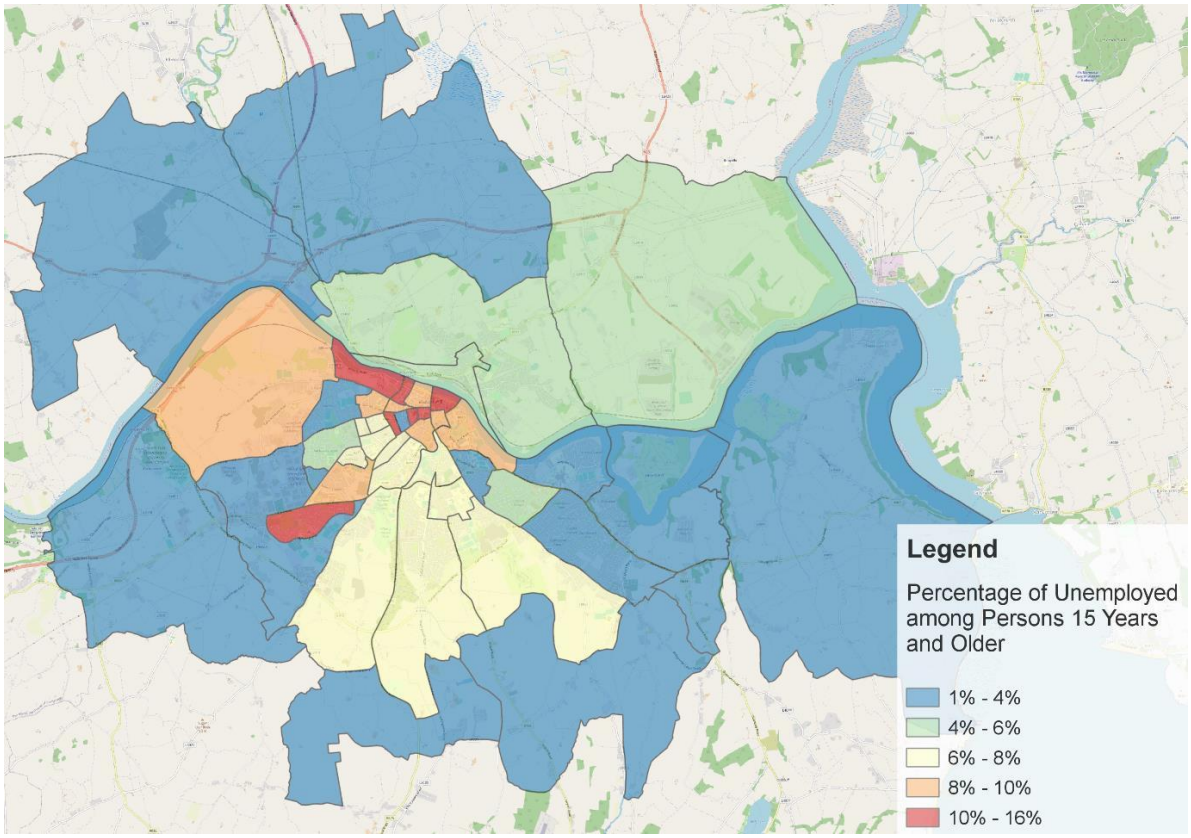


Figure 9: Percentage of Persons in Principal Economic Status 'Looking for first regular job', 'Short term unemployed' and 'Long-Term unemployed' among Persons Aged 15 Years and Older (Source: KPMG Future Analytics, based on CSO data / OpenStreetMap)

3.2.3 Employment Types

Two thirds, 66%, of the population are of working age (15-64), compared to 65% across the State.

The principal economic status of the residents within the catchment deviates slightly from the overall figures for the state. A total of 53.1% of the population are economically active, which is slightly lower than the state rate of 56.1%. The catchment area had an unemployment rate of 6.7% higher than the state average of 5.1%, with similar levels of students (11.3% catchment, 11.1% state) and a higher incidence of retired people at 16.8% than the state (15.9%).[6] The decreasing and now low unemployment rate points towards a generally healthy economy after significantly higher employment in the wake of the global financial crisis in the early 2010s. At the same time, Waterford Metropolitan Area continues to lag the national trend in terms of population at work (WMA figure is lower than State figure) and unemployment (WMA figure is higher than State figure).

[5] Percentage of Persons in Principal Economic Status 'Looking for first regular job', 'Short term unemployed' and 'Long-Term unemployed' among Persons Aged 15 Years and Older

[6] CSO Census 2022 statistics.

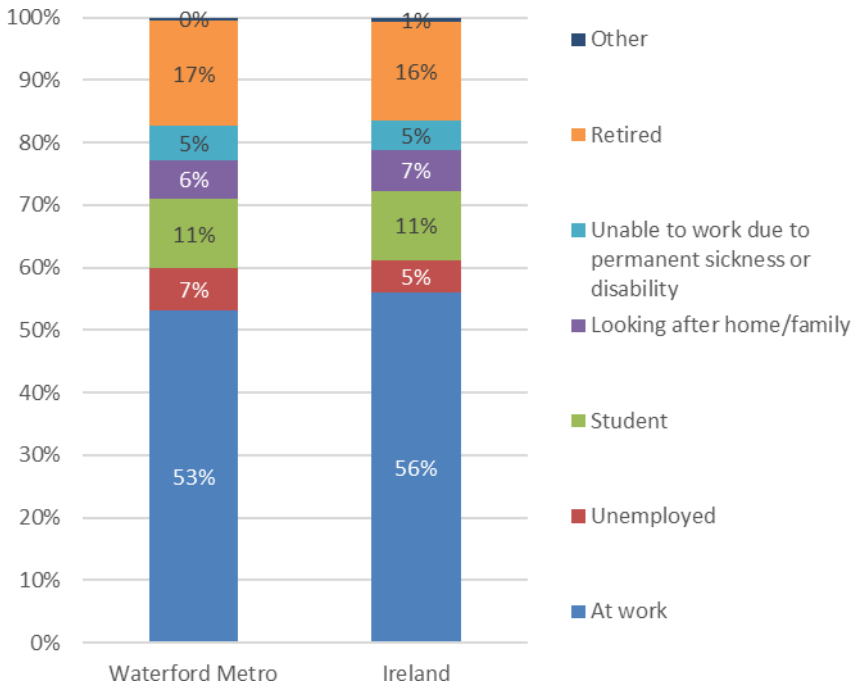


Figure 10: Population aged 15 years and over by principal economic status

Regarding socio-economic groups, non-manual at 34.2% was the largest report group for employees, this would include retail and wholesale workers, which aligned with the national average of 34.4 %. The proportion of ABC professionals stood at 19.4% compared to 22.6% nationally, pointing at significantly higher levels of upper management workers in Waterford.

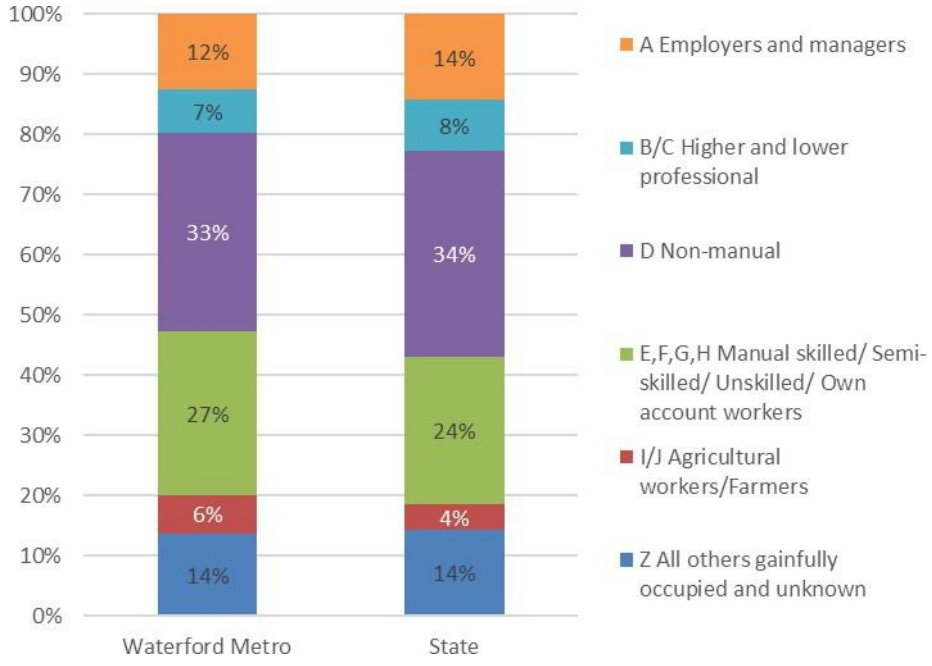


Figure 11: Population aged 15 years and over by socio-economic group of reference person

These macro socio-economic factors, specifically overall population growth, expansion of cohorts specifically relevant to on-site shopping, proportion of community employed, and increasing levels of employment indicate an expanding, economically active cohort helping to drive footfall and retail

demand for the catchment area firmly into the future. At the same time, continued lower numbers of ABC professionals and higher unemployment (compared to State) indicate limits with regard to retail spending on high-end goods. Continuous efforts need to be made to assist growth of ABC professionals to bolster retail spend beyond the price-sensitive spectrum.

3.2.4 Retail Businesses and Employment

According to 2022 Census data, a total of 7,261 persons in Co. Waterford were employed in retail-related professions, accounting for 11.9% of the population aged 15 years and over in the labour force, marginally above the national figure of 11.4%. Within retail, a higher percentage than nationally is employed in food and beverage service activities, while slightly lower percentages than nationally are employed in motor trades and (other) retail trades. This points to a higher significance of the food and beverage service sector in Co. Waterford which reflects the importance of the tourism industry in the County.

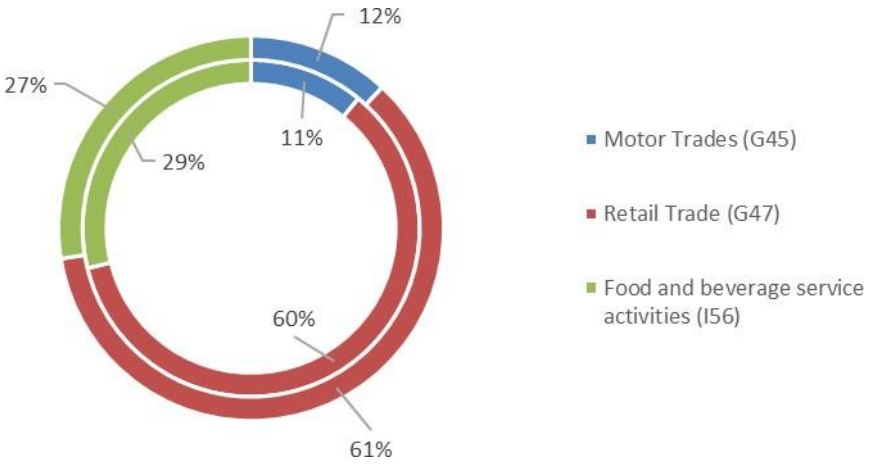


Figure 12: Population aged 15 years and over in the labour force employed in retail-related professions (inner circle: Co. Waterford, outer circle: Republic of Ireland), 2022 (Source: KPMG Future Analytics, based on CSO)

2021 Business Demography statistics recorded a total of 1,242 retail-related businesses in Co. Waterford, representing 16.5% of all business of NACE 2 categories B to S – excluding Agriculture), a figure higher than the 13.3% for Ireland. 31% of all retail-related businesses were classified as food and beverage service activities, 19% as motor trades, 49% as (other) retail trade. While the total number of retail-related businesses in Co. Waterford increased by 2.6% between 2019-2021, the number of food and beverage service activities underwent a decline by 2.3%, an effect that is likely related to the Covid19-pandemic and is also noticeable on the national level.

Figure 13: Active retail-related enterprises in Co. Waterford, 2019-2021, by retail sector (Source: KPMG Future Analytics, based on CSO Business Demography statistics)

Business Demography statistics also reveal a growth of employment in retail-related businesses in Co. Waterford overall from 2019 to 2021 by 10.4%. At the same time, however, employment in food and beverage service activities decreased by 15.1%, likely attributable to developments during the Covid19-pandemic. Both decline in number of businesses and employment in food and beverage service activities should continue to be observed in order to react to any potential negative structural trends.

Figure 14: Persons engaged in active retail-related enterprises in Co. Waterford, 2019-2021, by retail sector (Source: KPMG Future Analytics, based on CSO Business Demography statistics)

According to national CSO figures, the retail economy generated a turnover of €57.3 billion in 2020. 24% of this turnover was created in the motor trade sector while this sector only accounted for 10% of the turnover of the retail economy. Thus, motor trades have an important multiplier effect in the Irish economy. In contrast, 30% were employed in food and beverage service activities while this sector only accounted for 8% of the turnover of the retail economy. This reflects the fact that food and beverage and other commercial leisure uses generate a far lower turnover (€ per sqm) than retail shops. Other retail trade accounted for 68% of turnover and 60% of employment.

3.3 Household Expenditure

3.3.1 Retail Spending

Despite challenges facing the global economy, all key macroeconomic indicators and a budgetary surplus suggest that the Irish economy has remained strong in 2023. However, tighter ECB monetary policy, higher levels of inflation and service/infrastructure demand challenges are having knock-on impacts with investor sentiment.

The rising borrowing cost environment had slowed the Irish commercial property market over 2022 and 2023 with the sector experiencing near record lows in both volume and value of acquisitions. One notable exception to this was the retail sector, which experienced an uplift in investor interest with €199 million of capital invested in this asset class in the second quarter of 2023.

Government publishes data on personal expenditure on consumer goods and services, which records how much households consume. The latest data show that households consumed 2.3% more in Q2 2023 than the previous year, after adjusting for inflation. Growing personal consumption implies growing demand for retail and services.

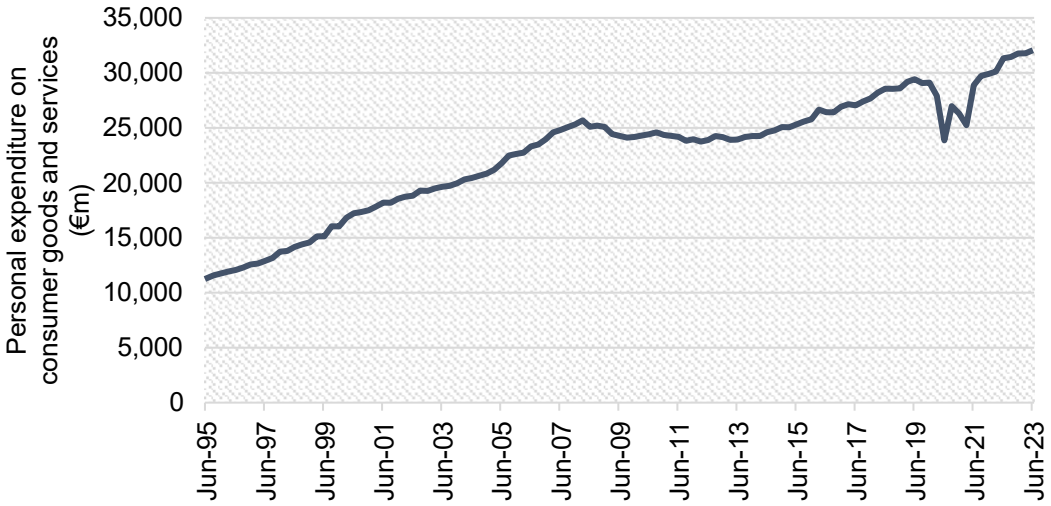


Figure 15: Personal expenditure on consumer goods and services growth

The retail sales index shows that while the volume of retail sales decreased slightly (-0.1%) in August, it had increased by 3.6% in the 12 months from August 2022. Online retail sales (from Irish registered companies) represented 4.4% of overall sales in August 2023 compared with 4.8% in July 2023 and 4.8% in August 2022.

The combination of growing retail sales and low rates of online purchases shows there is continued, strong demand for physical retail stores, particularly in line with a 'Destination Retail' model of attraction.

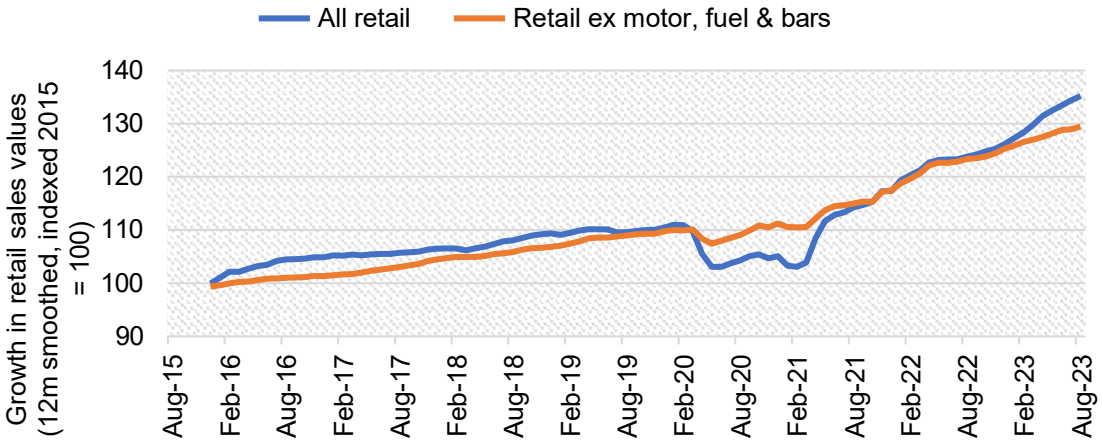


Figure 16: Growth in retail sales values

3.3.2 Earnings, Employment, and Consumer Sentiment

Disposable income in County Waterford was 7% below the state average in 2020 and in Kilkenny 12% below the state average. From 2018 to 2020 the gap between state average and Kilkenny has grown, for Waterford it has remained stable. The 2020 values translate into approximately €21,857 per person in disposable income in Waterford and €20,548 in Kilkenny.

In 2016, the average weekly household expenditure on retail aligned activities was approximately (national figures):

- €34 on clothing and footwear
- €42 on medical
- €28 on alcohol and tobacco
- €123 on food (of which €26 for eating out)
- €16.50 on non-durable household goods
- €27.50 on durable household goods

Since that time, the profile of expenditure has changed, particularly on foot of COVID-19, where the dynamic between what was spent locally and what was spent online evolved. As noted, data from CSO shows that there has been a levelling out of this and that 5.4% of Irish retail turnover was online in the year to July 2023.

From a weekly earnings perspective, preliminary estimates from the CSO show that in the 12 months to Q2 2023 the average weekly earnings rose 4.3%.

During this period, the job vacancy rate stood at 1.3%, down from the 1.6% recorded at the end of Q2 2022. A tight labour market will support continued wage growth. High employment and rising earnings will drive greater retail demand.

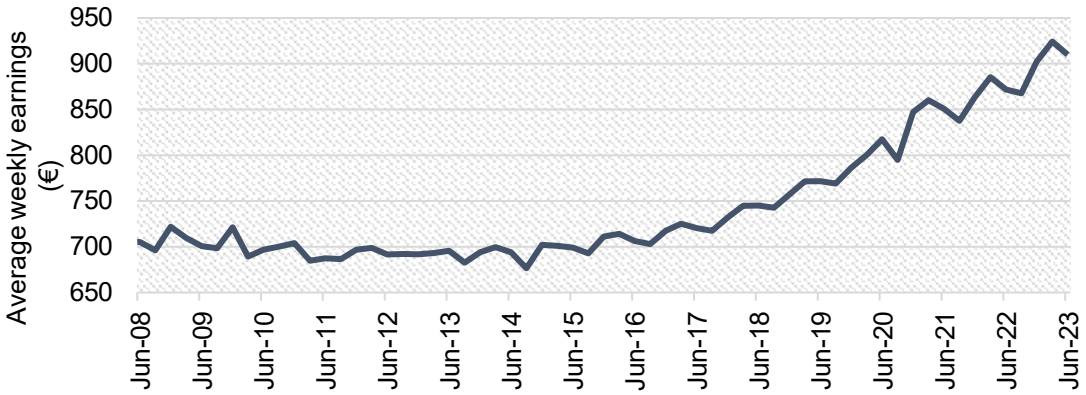


Figure 17: Average weekly earnings rose 4.3% year-on-year

The Irish League of Credit Unions publishes a monthly consumer sentiment survey, recording public perception of the general economic environment and households' expectations for their own financial situations.

This survey shows that broad consumer sentiment and the general economic outlook have weakened between July and September 2023. Despite this, consumers remain broadly optimistic, particularly with regard to their personal financial situation with a net balance of opinion of 70 (well above 'neutral' economic outlook which is defined at '50').

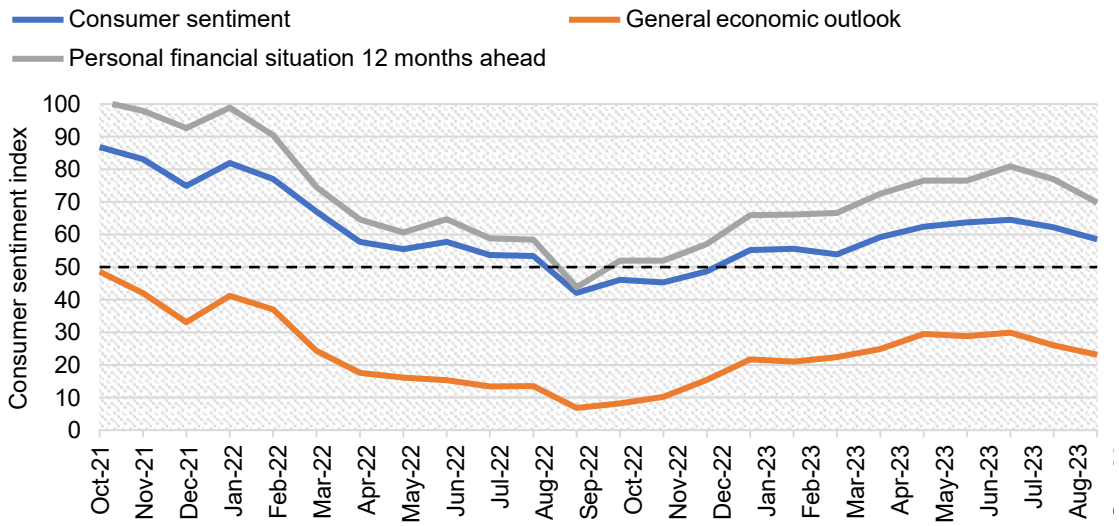


Figure 18: Consumer sentiment

3.4 Macro-Trends in Retail

3.4.1 Online retail spending

According to CSO, in April 2020, following the first introduction of pandemic-related restrictions, the proportion of sales transacted online in Irish registered companies increased significantly to 22.7% but has since fallen back to an average of 9.8% in 2021 and 7.0% in 2022.

In its latest report, Next Generation Retail (KPMG 2022), KPMG found that nearly two years after the start of the COVID-19 pandemic, online shopping continues to grow, but with variations by category (e.g., fashion and gifts is growing faster than homeware, groceries). The study found the majority

preferred to buy clothes, fashion, and gifts online or hybrid (a mix of online) whereas the majority prefer to purchase homeware and groceries in-store[7].

According to a Mintel study, the ongoing cost of living crisis is influencing consumers to shop online in search of better value and discounts. According to a Mintel study, the ROI value of the online and mobile retail sector is expected to grow by 5% between 2022 and 2023 to €16.4 billion.[8]

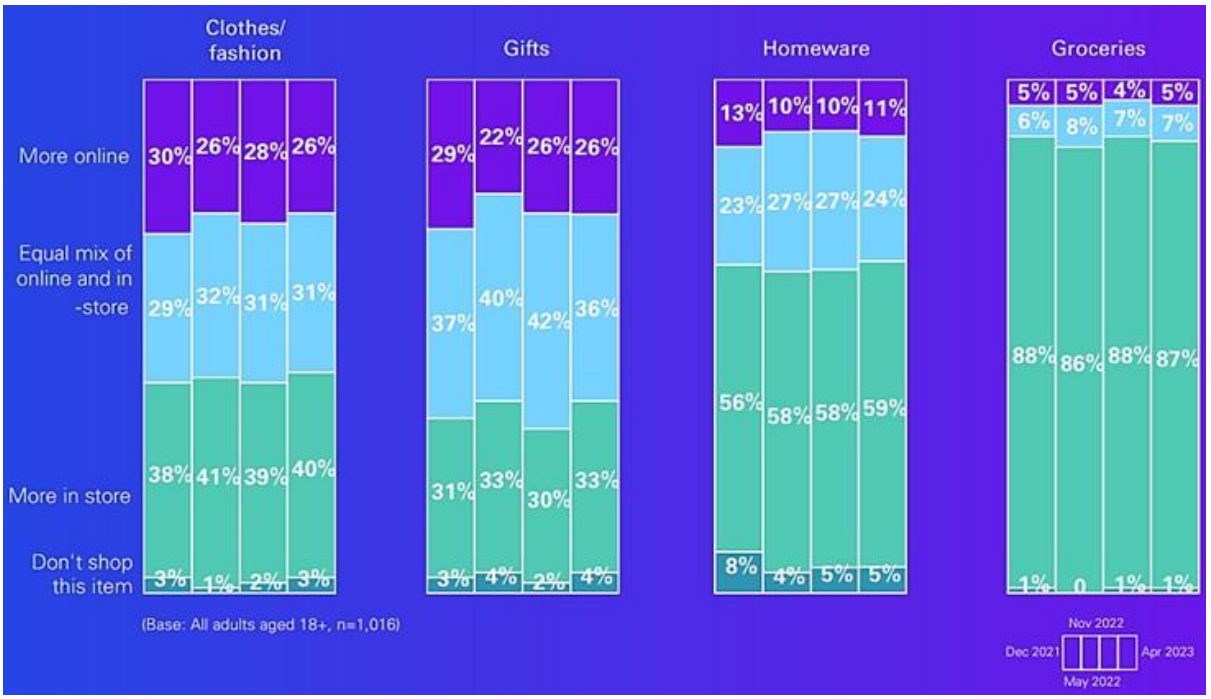


Figure 19: Consumer shopping preferences across different categories (Source: Next Gen Retail – The Changing Shape of The High Street, KPMG 2023)

In-person shopping experience is being undermined by factors including the pull-out of branded outlets from high streets as high street locations continues to face tough competition from online retail. This finding is supported in The Future of High Street Retail - Ireland, 2022 (Mintel). The study suggests that while online shopping will likely continue to grow in popularity, it is thought that demand for physical shopping destinations will remain a necessity for consumers seeking a day out as the social aspect of these destinations cannot be replicated online. However, if the current cost-of living crisis continues to impact consumers' ability to spend, in the long term, retailers may struggle to maintain viable levels of footfall as the value of the online retail market continues to rise. With many staple high street retailers, such as Debenhams and Argos, closing their doors nationwide and in Waterford between 2021 and 2023, this has further highlighted the changing face of the high street as well as the increased competition posed by online retailing. At the same time, this presents an opportunity for a rethink of the overall retail environment (i.e., focus on smaller, independent retailers/ more specialised stores). The recent redesign of George's Court Shopping Centre into a food-centred experience as well as investment into City Square Shopping Centre to increase overall retail space while producing more flexible unit sizes are reactions to the changing trends of retail in Waterford.

Besides the exit of certain well-known brands, the experience of in-person shopping has also been dampened by stock and staff shortages in shops on High Streets. In a 2022 survey over a third of shoppers in Ireland experienced insufficient assistance by staff when shopping in-person and around 40% stated that they have not been able to buy a product in-store due to stock shortages in the last 12

[7] Next Generation Retail - The Changing Shape of The High Street (KPMG, 2023)
[8] Online and Mobile Retailing - Ireland - 2023

months[9]. The same survey reported that many shoppers feel that often what they're looking for is not available in store, or that it can be purchased easier and cheaper online. These attitudes are notably more pronounced among younger consumers, while those in the older age groups are more likely to express a preference towards shopping in store.[10]

Figure 20: Consumers in person shopping experience graphs (source: Next Gen Retail – The Changing Shape of The High Street)

3.4.2 Value for money and impact of inflation post-Covid

Consumers have made changes to how they shop post-Covid. According to a Mintel study, Irish shoppers have felt the impact of increased grocery prices in 2022 which resulted in changing shopping behaviour. Many consumers prefer using own-label brands and discounted retailers.[11] This trend is likely to continue in the near future as Irish consumers continue to experience cost of living pressures.

In a 2022 survey, 83% of Irish consumers reported being affected by higher food and drink prices and 70%-81% by higher fuel and energy costs[12]. A 2023 consumer study found that even though year-on-year inflation has decreased, prices continue to increase year on year albeit at a lower rate[13]. In ROI, 53% of consumers 'kept to a stricter shopping list' in April-May 2023 compared to the same time in the previous year (refer to Figure below). As a result, consumers will place a greater emphasis on price and value when making grocery purchases, which is anticipated to increase price competition across supermarket brands in the coming years.

[9] Next Generation Retail - The Changing Shape of the High Street (KPMG, 2023)
[10] Next Generation Retail - A Survey of Irish consumers (kpmg.com)
[11] Supermarket Retailing - Brand vs Own-label - Ireland - 2022
[12] Supermarket Retailing - Brand vs Own-label - Ireland - 2022
[13] Consumers and the Cost of Living - Ireland - 2023

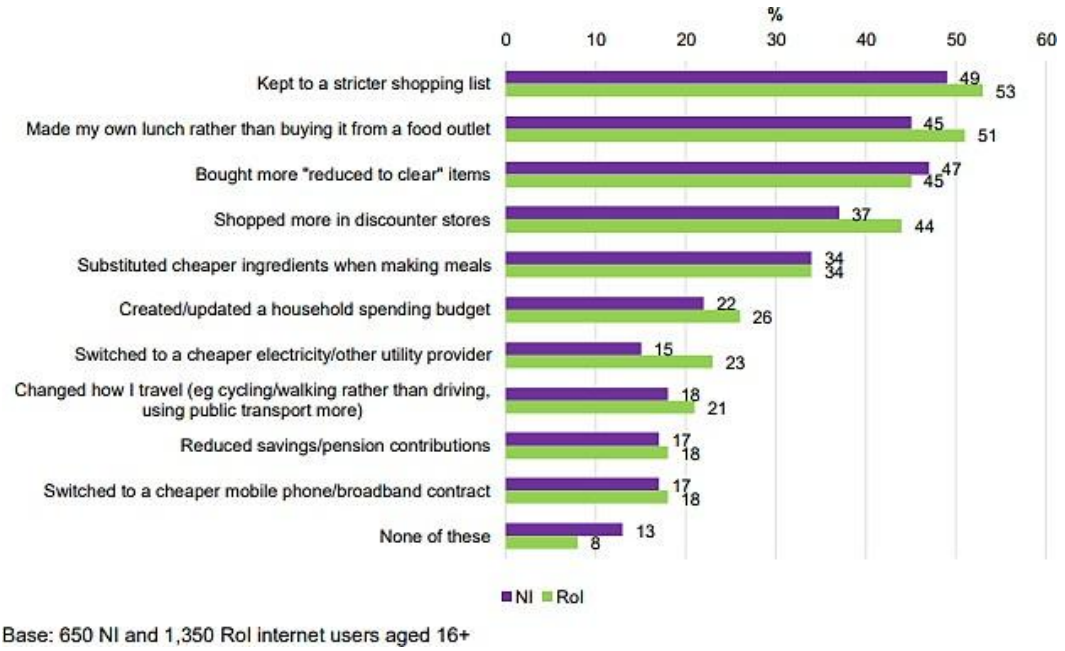


Figure 21: Changes made over the months April-May 2023 compared to previous year, NI and ROI, 2023 (Source: Dynata/Mintel 2023)

A 2022 KPMG survey of Irish Consumers found that price remains the most influential factor when choosing where to shop whether in-person or online. The survey also shows that price and convenience remain the two influential factors whereas 'Buying Irish goods' and 'Supporting local retailers' ranked lower for most (see Figure below).

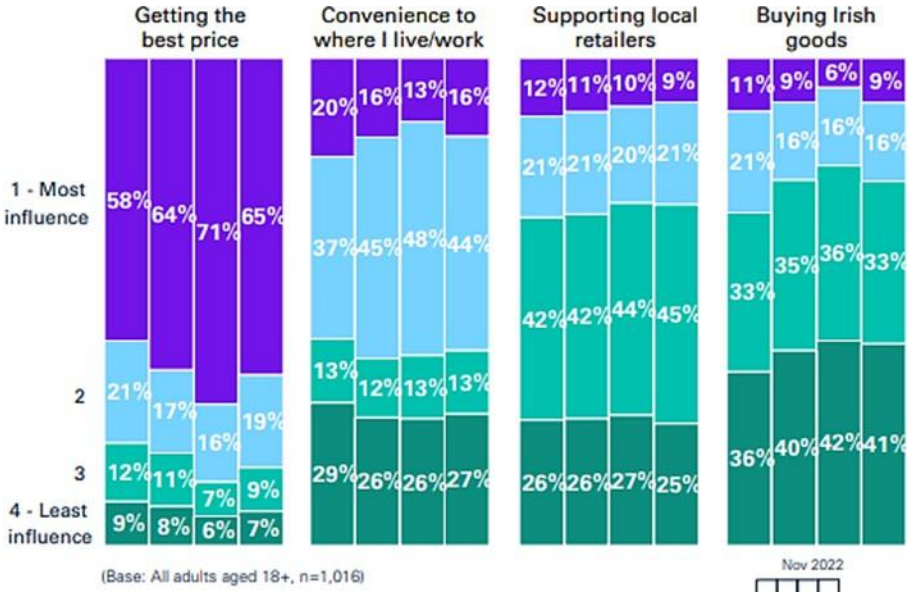


Figure 22: Top priorities of consumers (Source: Next Gen Retail – The Changing Shape of The High Street, KPMG 2023)

3.4.3 Growing popularity of shopping centres and retail parks

Shopping centres often offer a more convenient service and higher quality shopping environment than conventional spread-out and open city centres. During the Covid-19 pandemic, retail parks became a

popular choice of shopping location and investment. One of the contributing factors to the popularity of shopping centres is provision of on-site parking.[14]

The Future of High Street Retail Ireland, 2022 (Mintel) finds that 60% of ROI respondents having visited a retail park in the three months leading up to June 2022.

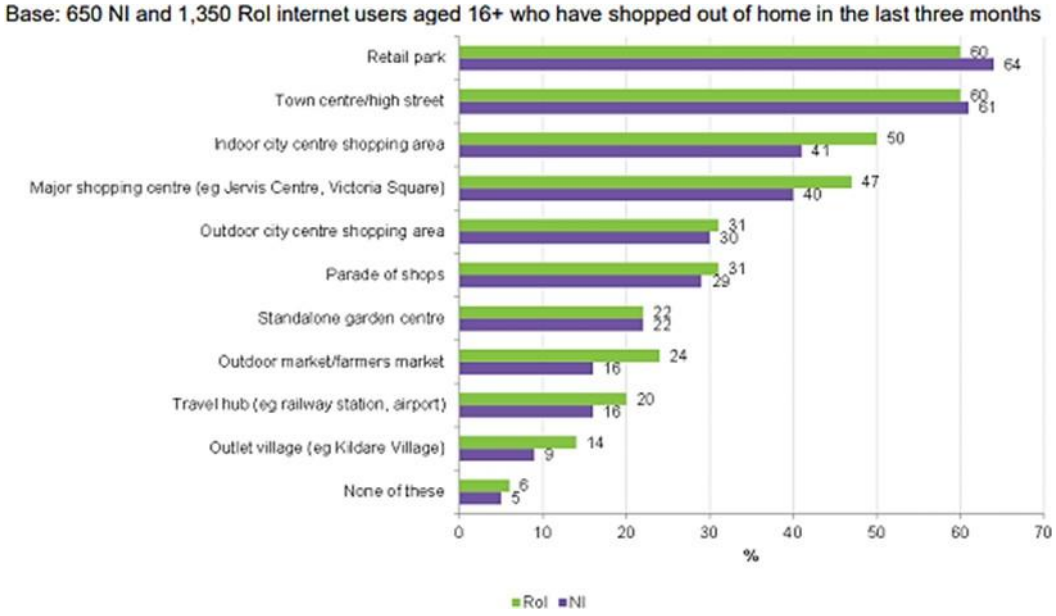


Figure 23: Shopping destinations visited in the last three months in NI and RoI 2022 (Source Synata/Mintel)

A 2022 KPMG survey of Irish Consumers found that 40% of respondents prefer shopping in large shopping centres whereas a much lower proportion (16%) of the respondents prefer going to city centre for shopping purposes. However, 28% of respondents stated they preferred shopping in their local town/village High Street which reflects the importance placed on convenience by consumers.

Figure 24: Preferred shopping locations of consumers (Source: Next Gen Retail – The Changing Shape of The High Street, KPMG 2023)

[14] The Future of High Street Retail - Ireland - 2022

3.5 Localised Retailing Landscape

The retail landscape in the MASP is characterised by a clustering of retail in Waterford city centre, in Suburban/District Centres and in purpose-built retail parks, mostly along the main arterial roads to and along the Outer Ring Road.

3.5.1 Retail Hierarchy

Table 2 outlines the retail hierarchy within the Waterford Metropolitan Area, as specified in the Waterford City and County Development Plan and the Ferrybank-Belview Local Area Plan 2017. Figure 25 illustrates the location of Tier 1, 2 and 4 centres within the Waterford Metropolitan Area.

Table 2 Waterford MASP Retail Hierarchy

Tier	Role & function	Defined retail area(s)
Tier 1 Metropolitan	Major retail destination within the Region, offering a wide variety of convenience and comparison goods along with an extensive offer of retail, financial and business, leisure services including arts and cultural facilities. Provides a range independent and specialist shops.	Waterford City Centre (Retail Core Area incl. street types: Zone 1, Zone 2, Other Areas)
Tier 2 (L2) District/ Suburban Centres	Key shopping destination offering a variety of convenience and comparison goods, along with a range of retail and leisure services and some financial and business services'	Ardkeen/Farronshoneen, Kilbarry, Tramore Road, Inner Relief Road Waterford Shopping Centre, Lisduggan Ferrybank Centre
Tier 4 Local Shopping	'Local shopping destination serving the surrounding hinterland with a limited offer of convenience and comparison goods, and retail and leisure services.' (Waterford City and County Development Plan, chapter 4.12 Retail Strategy)	Ballinakill Ballybeg Carrickphierish Cleaboy Hypermarket, Morgan Street Kilcohan The Outer Ring Road Williamstown, Ballygunner Road (opposite Meadowlands) Knockboy
Tier 5		Local Shops in Waterford City

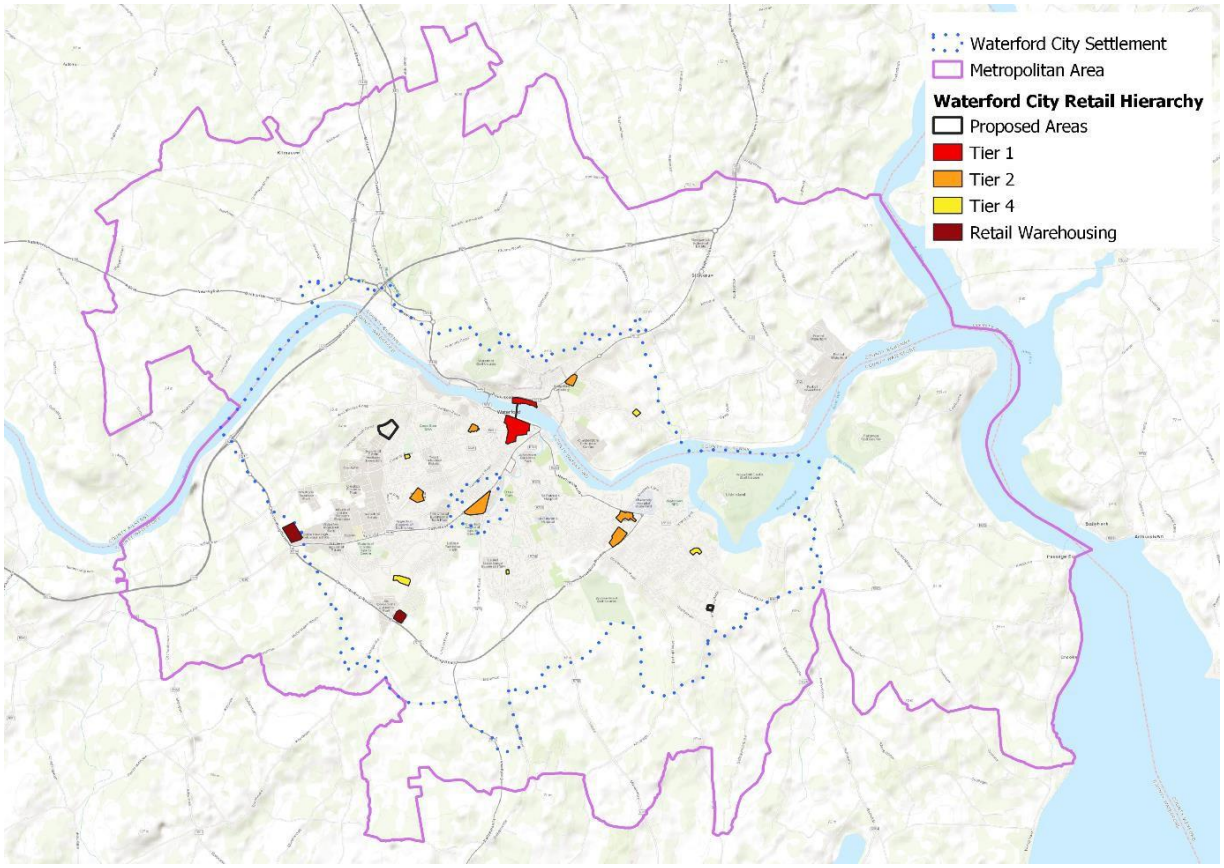


Figure 25: Current retail hierarchy in Waterford City (Source: KPMG Future Analytics, based on Waterford City & County Development Plan 2022 – 2028: chapter 3.6 Waterford City Retail Strategy)

3.5.2 Retail Core Area

In the Waterford Development Plan, the Retail Core Area is defined as comprising of a 12.6 ha (0.13 km^2) area in the historic centre that extends northwards across the River Suir to the North Quays development site. The North Quays SDZ which will serve as a transport hub for Waterford more broadly, and as access node for the city centre and the Ferrybank district, with additional housing, business space and amenities planned.

Retail areas adjacent to the historic city centre include Ballybricken (to the west) and Fountain Street Ferrybank (to the north) comprised of local retail that largely serves the residential neighbourhoods.

The Waterford Development Plan and the North Quays Planning Scheme identify several nodes or quarters adjoining the Retail Core Area each with a unique character including:

- Cultural Quarter focused on Garter Lane and along O'Connell Street which overlaps with the Retail Core Area at its western end.
- Tourism & Heritage Quarter focused on the Viking Triangle and The Mall. Includes Bailey's New Street, Constitution Square, Cathedral Square, and Charles Bačik Plaza.
- Evening & Night-time Quarter focused on the Apple Market and John Street.
- New mixed residential and commercial development areas located in North Quays Planning Scheme area immediately to the west and east of the Retail Core Area.

Linkages between these character areas/precincts have emerged as a result of their spatial proximity (e.g., gift shops close to the Tourism & Heritage Quarter and late-night convenience stores close to the Evening & Night-time Quarter).

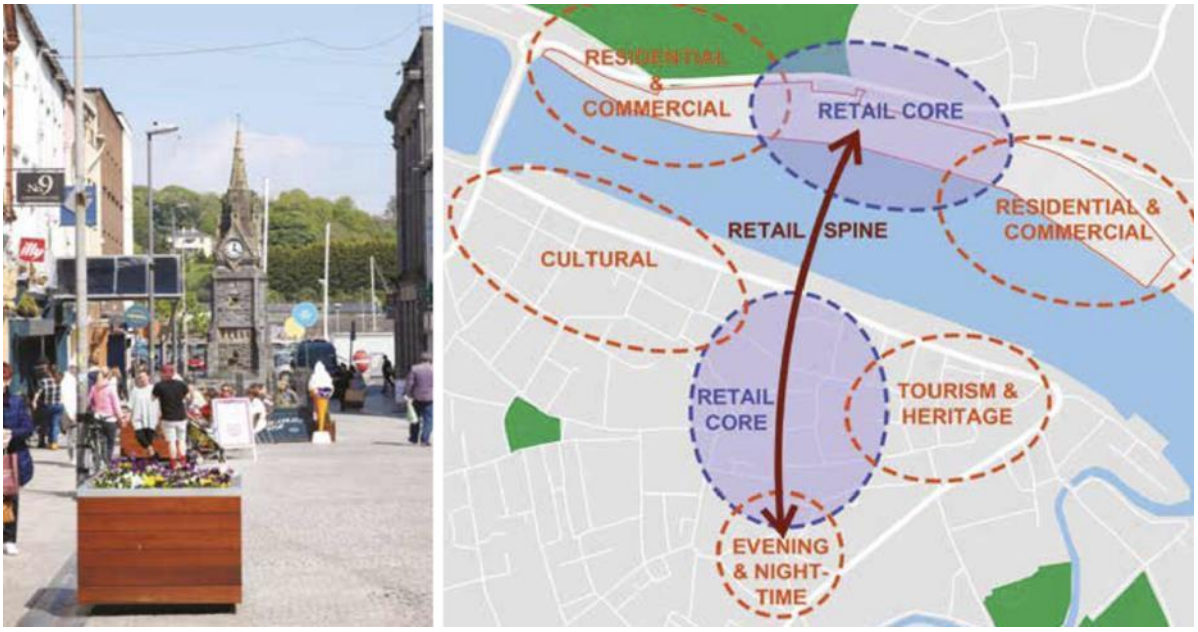


Figure 26: City Centre Precincts (Source: Waterford City and County Development Plan)

The Waterford Development Plan divides the Retail Core Area into two zones in order to facilitate a multifunctional/ flexible approach to development management in the city centre while strengthening the retail character of core shopping streets.

Table 3 Waterford Retail Core Area Zone 1 and 2 Definitions

Zone	Streets
Zone 1	Michael Street, Broad Street, Barronstrand Street, Great George's Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter's Street.
Zone 2	All remaining streets in the Retail Core Area which provide a mix of retail and non-retail uses.

The overarching policy objective for core shopping streets in Zone 1 is to strengthen the retail offer through the introduction of higher/medium order retail uses at ground level while non-retail uses (such as pubs, cafés, restaurants) will be considered on their merits and service outlets (such as bookmakers, take-aways and amusement arcades) will be discouraged at ground floor level.

The overarching policy objective for Zone 2 streets is to facilitate a mix of retail and non-retail uses to create an enhanced shopping and leisure experience. Applications for other service outlets will be assessed on their merits provided they do not create a predominance of similar non-retail uses on the street.

The key policy objective for the city centre area overall is to '*promote the revitalisation of vacant / derelict properties / shop units as a priority'* with the goal to support increase retail and commercial units in the Retail Core Area.

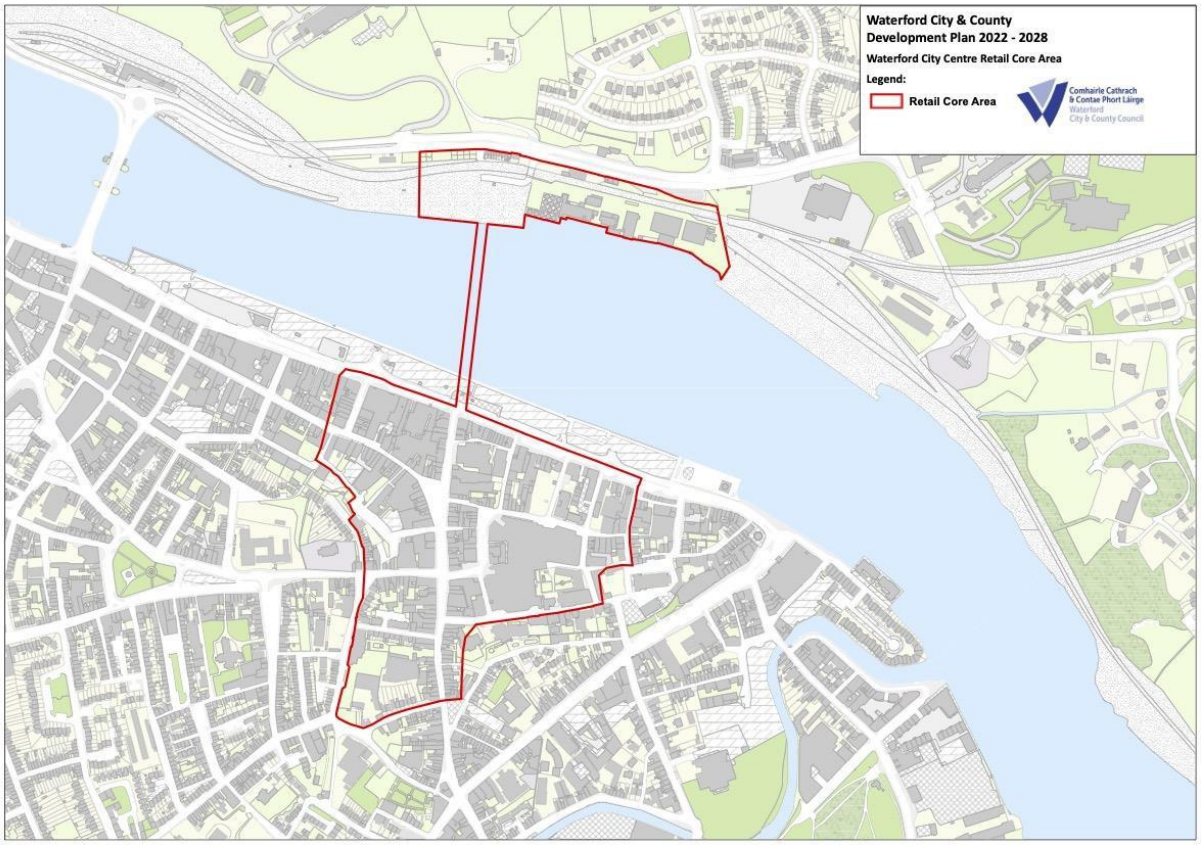


Figure 27: Retail Core Area (Source: Waterford City and County Development Plan)

Due to its historic and fine grain urban layout (plot sizes and buildings), Waterford's Retail Core Area has historically faced strong competition from retail locations both within and outside the County with greater opportunity to physically accommodate large retail units sought by national retailers. There is a limited number of large retail units in the Retail Core Area suitable for anchor retailers. Such anchor stores play a key role in promoting the vitality and viability of centres by acting as attractors which drive footfall and support the turnover of smaller shops, tourism and hospitality businesses.

The limited availability of larger retail units in the Retail Core Area has historically undermined the ability of the city centre to attract a critical mass of higher-order national retailers. Larger retail units in the Retail Core Area in City Square shopping centre and John Roberts Square are currently vacant which signals supressed demand from national retailers to take up new space. The Michael Street/New Street site presents a key opportunity to deliver modern large retail units in the city centre, and additional retail floor space is expected to be delivered in the coming years.

Vacancy is evident in the city centre where adaptability of the historically significant shopfronts can present challenges to contemporary retail requirements. Small floorplates and higher costs associated with the restoration of such historic buildings can present a viability challenge for retailers and small businesses. Conversely, in retail areas outside of the city centre, vacancy is generally low.

3.5.3 Types of Retail Goods and Geographical Distribution

The Retail Planning Guidelines recognise the important role city centres play in the spatial structure of the country, the region and (wider) cities. To ensure the vitality and viability of the city centre, restrictions are placed on the location and floor size of retail, and a Sequential Approach for the location of retail is mandated.

As of Q2 2023, there were 363 retail facilities present in the Waterford Metropolitan Area, of which 203 (56%) were classified as stores focusing on comparison goods, 90 (25%) as stores focusing on convenience goods, 33 (9%) as stores focusing on bulky goods, 18 (5%) as stores focusing on comparison and bulky goods, and 18 (5%) as petrol stations (which often include convenience stores).

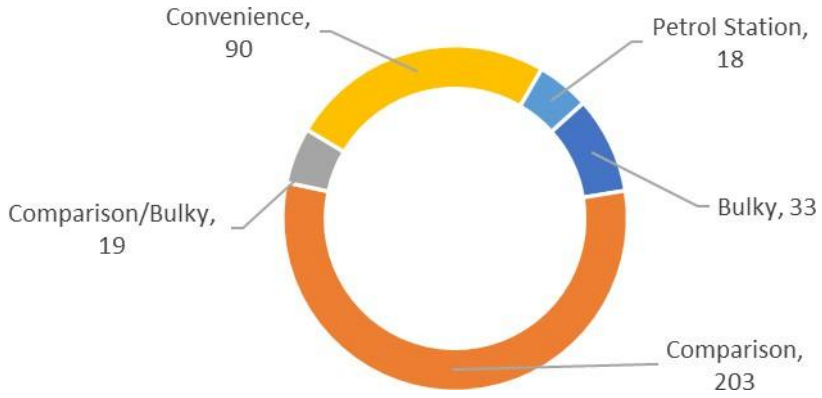


Figure 28: Distribution of Retail in the Waterford Metropolitan Area by Retail Types (KPMG Future Analytics, based on Q2 2023 Geodirectory data)

Convenience stores and petrol stations are distributed throughout the cityscape of Waterford and major residential neighbourhoods. A higher density can be observed in the city centre and the Tier 2 (L2) Suburban/District Centres at Ardkeen, Tramore Road and Lisduggan. Also, less populated areas of a more rural character (such as Cheekpoint, Kilmacow, Slieverue) are served.

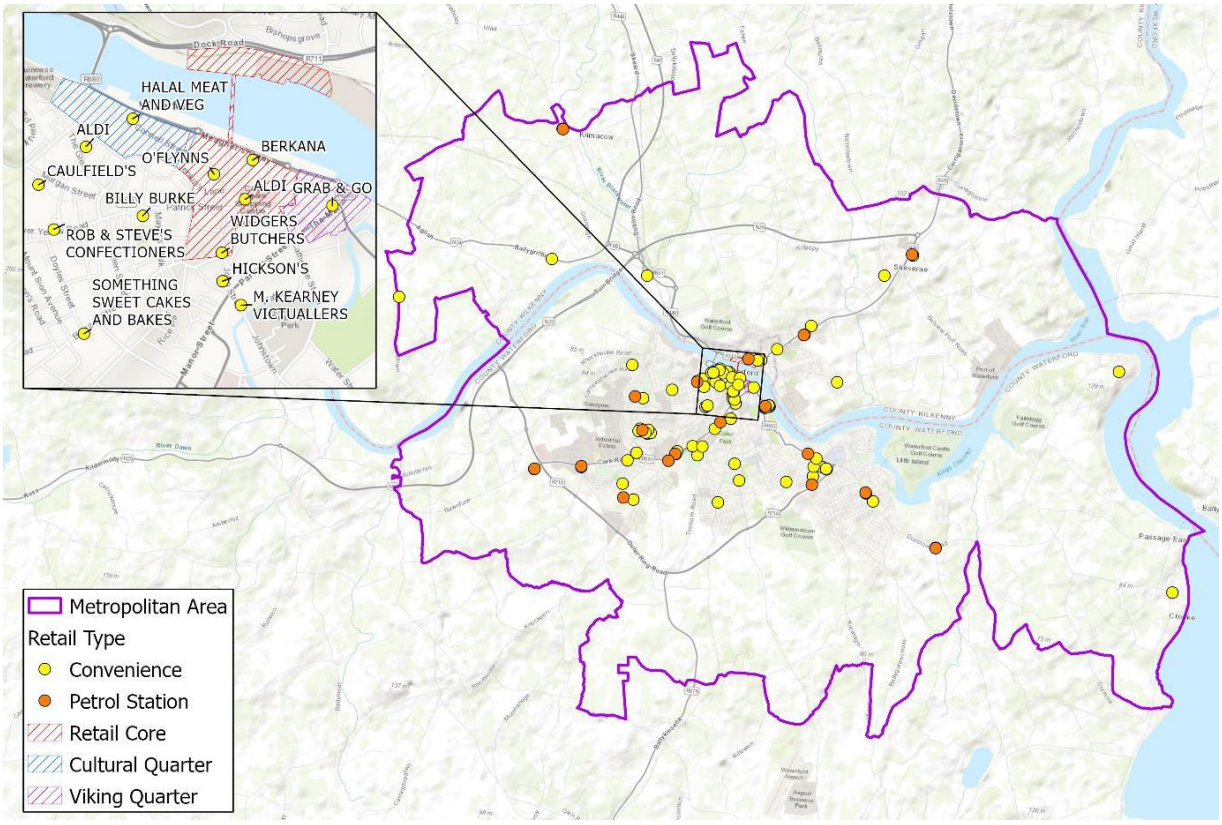


Figure 29: Retail Businesses in Waterford Metropolitan Area: Concentration of Retail Types Convenience and Petrol Stations (Source: KPMG Future Analytics based on Q2 2023 Goodirectory data)

Retail stores focusing on the sale of comparison and bulky goods have a strong presence in both the city centre and edge-of-town and out-of-town locations (such as Tramore Road/ Cork Road/ Inner Ring Road, and in designated Retail Warehousing sites along the Outer Ring Road (Waterford Retail Park/ Butlerstown and Musgrave Business Park.

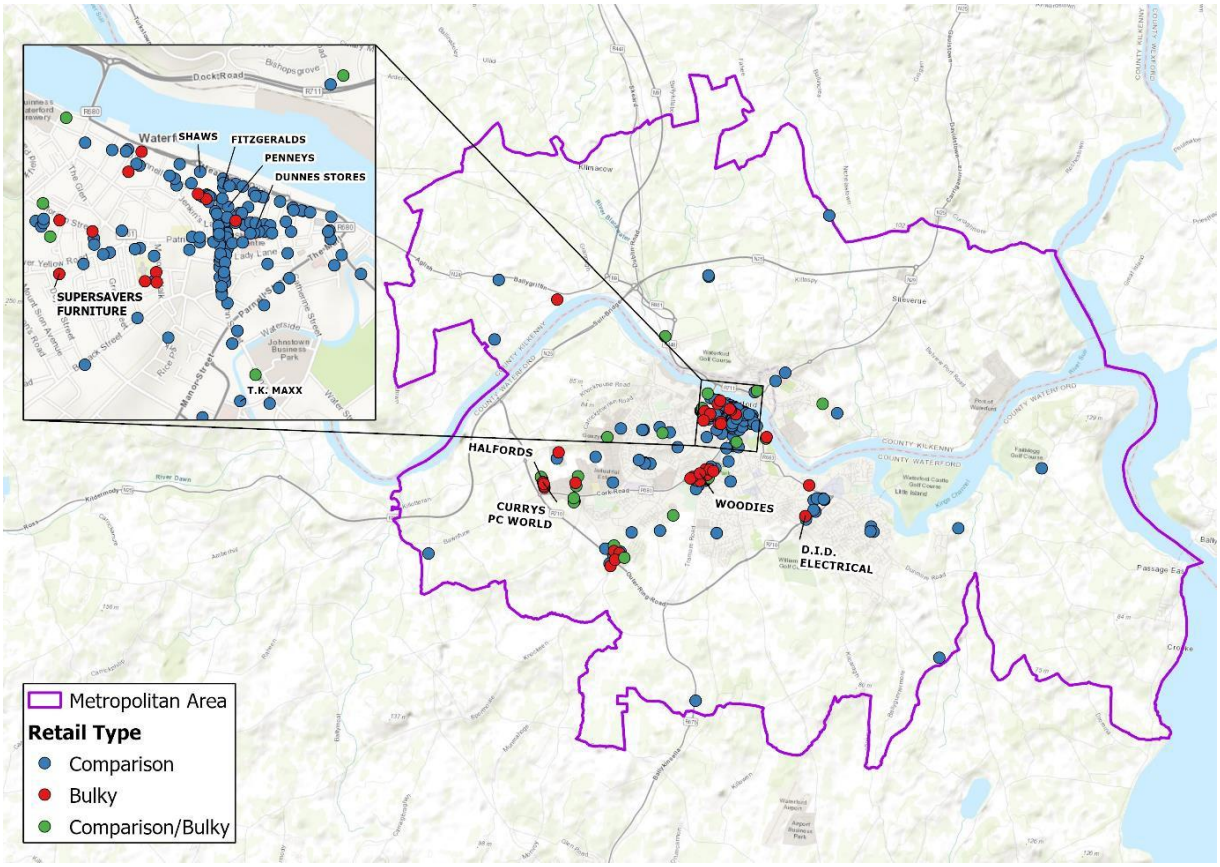


Figure 30: Retail Businesses in Waterford Metropolitan Area: Concentration of Retail Types Bulky, Comparison, and Comparison/Bulky (Source: KPMG Future Analytics based on Q2 2023 Goodirectory data)

The map below provides an overview of the concentrations of shops in the city centre. While the Retail Core Area is characterised by a high density of shops, concentrations also exist around O'Connell Street and in the centre of Ballybricken. The majority of shops are classified as comparison and convenience.

In line with the Sequential Approach that is mandatory for the location of retail, the Retail Core Area and District / Suburban centres are defined priority areas for new retail floorspace, including for comparison shopping, while edge-of-centre or out-of-centre locations may only be pursued if all other options have been exhausted.[15]

[15] Waterford City & County Development Plan, Chapter 3: Waterford City & MASP

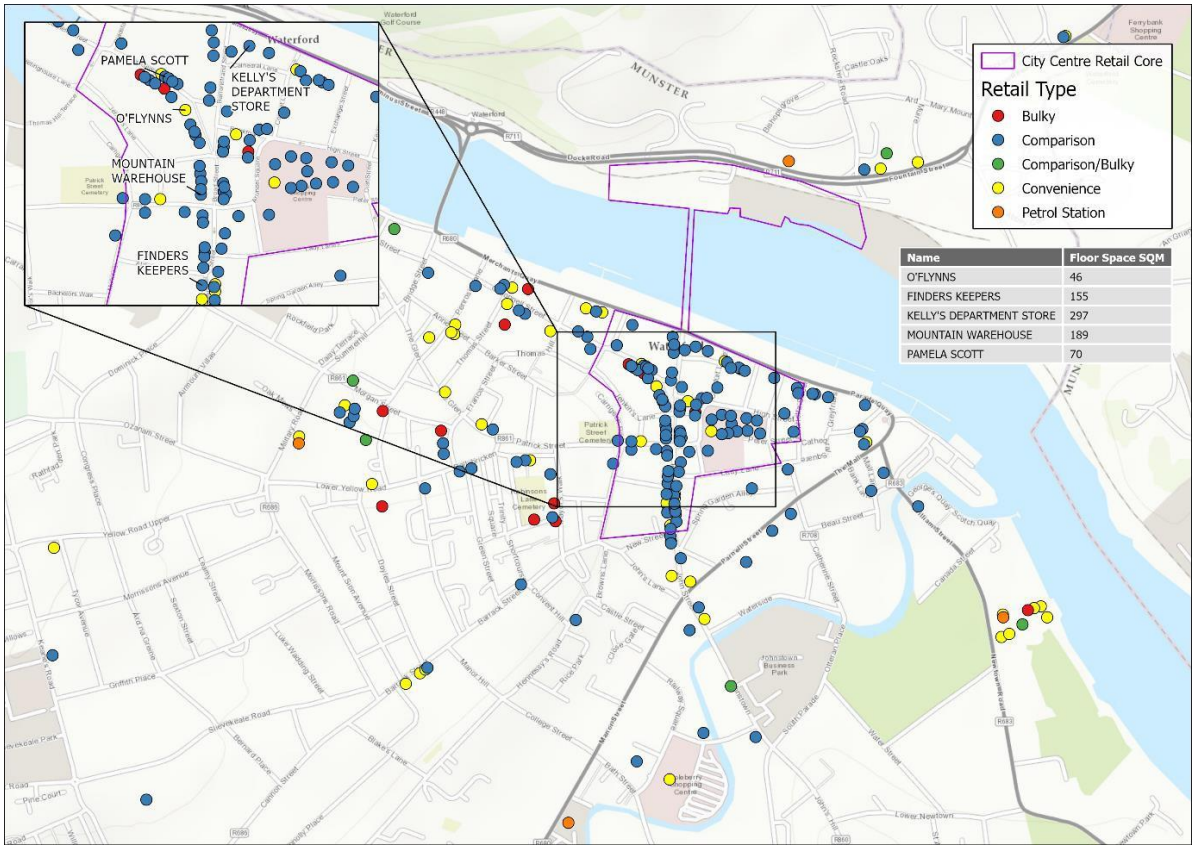


Figure 31: All Retail Businesses in Waterford City Centre (Source: KPMG Future Analytics based on Geodirectory data)

3.5.1 Three/CK Delta Data – Showing Dwell Times and more

Anonymised data from Three/CK Delta were obtained to provide insight into origin and dwell times of persons frequenting some of Waterford's main shopping areas. Data was obtained for five EDs in Waterford City Centre (ED Custom House A, ED Custom House B, ED Centre A, ED Centre B, ED The Glen, one ED partly overlapping with Tramore Road retail area (ED Kingsmeadow), and ED Ferrybank.

Data obtained was for the months of June and December 2023, reflecting different shopping behaviours during summer (i.e., increased tourism, local residents more likely to be away) and winter (i.e., Winterval festival, local residents more likely to be in Waterford). Footfall in December was above footfall in June by approximately 10%. While in June, local residents accounted for approximately 39% of visitors, in December, local residents accounted for approximately 46%.

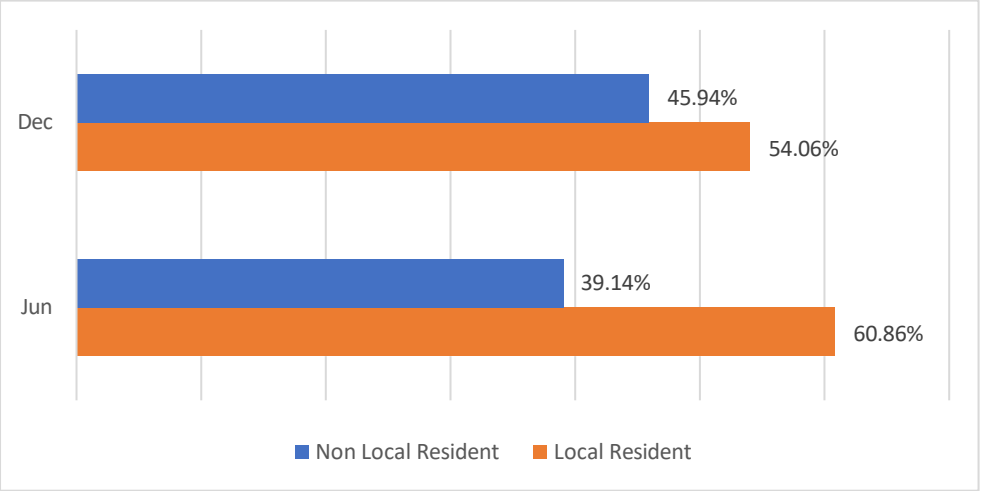


Figure 32: Dwell Time Data: Visits by months and resident type (Source: Three/CK Delta, evaluated and visualised by KPMG Future Analytics)

Most frequent dwell times were recorded for early afternoon hours, between 12PM and 4PM for all EDs.

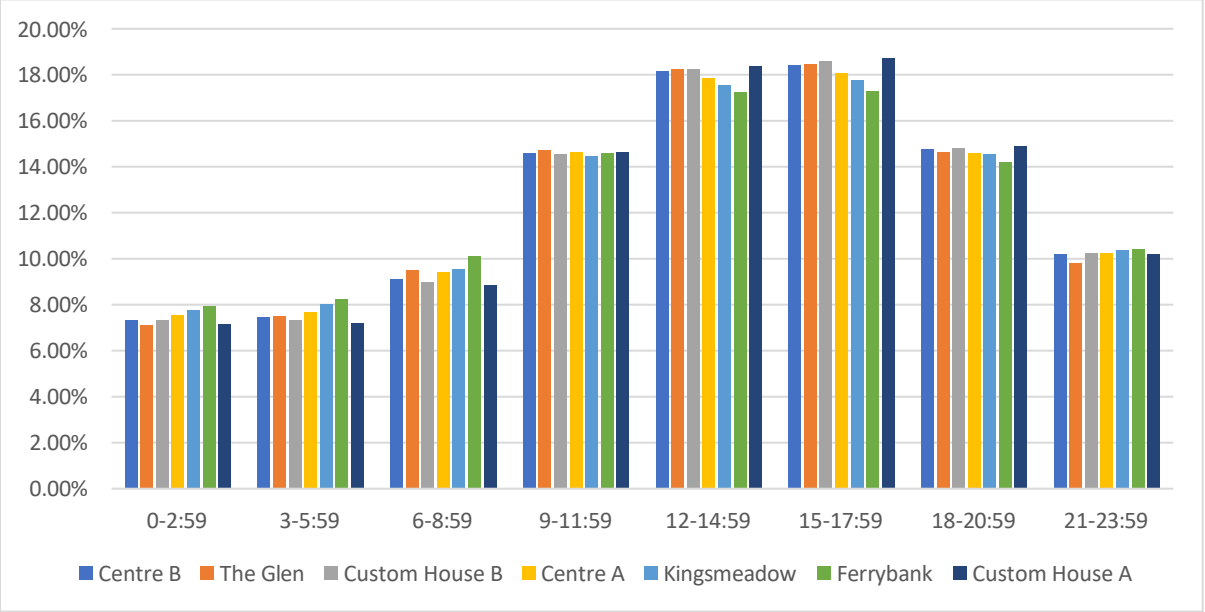


Figure 33: Dwell Time Data: POIs by visiting hour range (Source: Three/CK Delta, evaluated and visualised by KPMG Future Analytics)

For nearly half of visitors, the dwell time was below 60 minutes, while more than 30% spent more than four hours in the EDs.

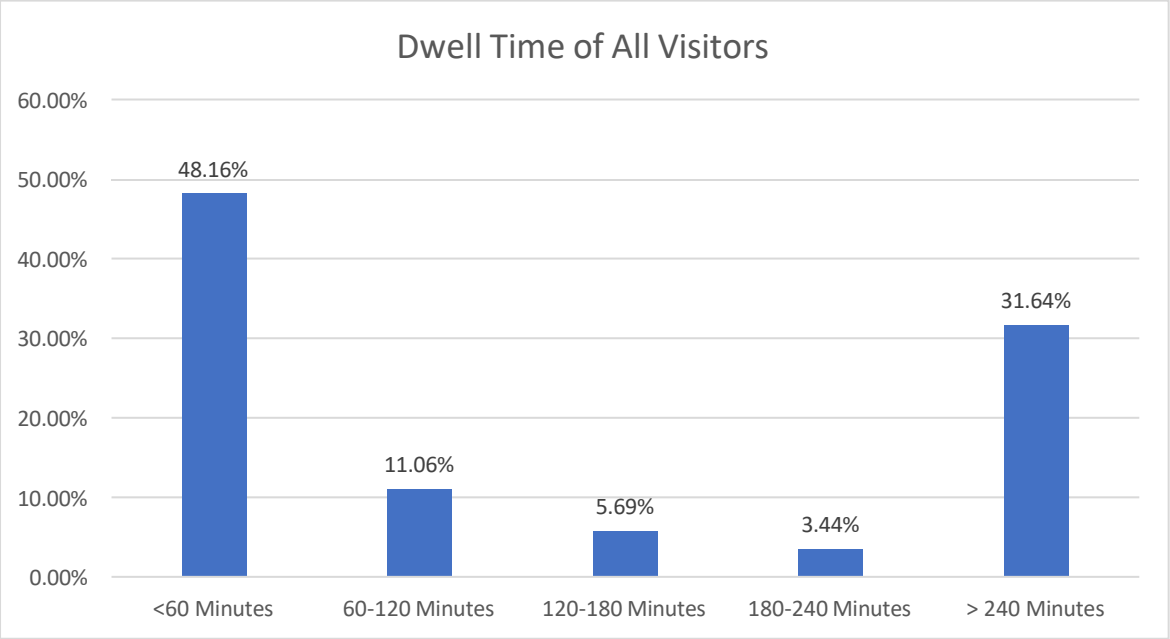


Figure 34: Dwell Time Data: Dwell time of all visitors (Source: Three/CK Delta, evaluated and visualised by KPMG Future Analytics)

3.6 Mobility and Access

In 2022, the National Transport Authority (NTA) in collaboration with Waterford City & County Council published the Waterford Metropolitan Area Transport Strategy. The strategy 'sets the framework for an accessible, high-quality and integrated transport network that provides for the travel demand and supports the sustainable growth of the Waterford Metropolitan Area as a major growth engine of the Southern Region, and an internationally competitive European city region as envisaged by the National Planning Framework 2040'[16].

Waterford City is connected to the wider region and larger urban centres of the country by road (M9 to Kilkenny/Carlow/Dublin, N24 to Clonmel/Limerick, N25 to Cork and Wexford) and rail infrastructure (to Dublin and Limerick Junction).

3.6.1 Motorised Private Transport

Prior to the construction of the Waterford bypass, the Edmund Ignatius Rice Bridge was the only road crossing for the River Suir. The bypass now forms a southern/western/northern brace around the city, with Thomas Francis Meagher Bridge providing a second river crossing. As travel routes from eastern/southern Waterford City suburbs to Kilkenny/Dublin, Clonmel/Limerick and Wexford via the bypass are longer compared to roads through the city centre and require toll payments for a portion of the bypass, city centre routes and Rice Bridge are still used by transit traffic. Along with commuter traffic from/to the city centre this leads to significant congestion of the main transport arteries, which negatively impacts Waterford City Centre and the Retail Core Area as access to this area is constrained.

Parking management is carried out as a means of ensuring flow of car traffic, ensuring accessibility, and ensuring traffic flow of other modes of transport. It is recognised that 'availability and price of parking are major determinants of the attractiveness of the private car relative to sustainable transport options'[17]. Additionally, access to, availability and price of parking are a determinant for choosing a retail

[16] Waterford Metropolitan Area Retail Strategy
[17] Waterford Metropolitan Area Transport Strategy, Chapter 5: Transport & Mobility

facility over another. While Tier 2 (L2) Suburban/ District Centres and other retail outlet agglomerations avail of designated shopfront parking, the Retail Core Area relies on various floor parking areas and parking garages in and near the city centre. Car park guide systems are in place yet lack comprehensiveness and visibility.

The Waterford Metropolitan Area Transport Strategy sets out 15 measures aimed at road improvements including for private, public, and active modes of transport up to 2040 and beyond. These include connectivity, additional infrastructure, intelligent transport systems, traffic control/ speed limits, emissions and infrastructure design.

3.6.2 Public Transport

Waterford City is currently served by five urban bus lines, and several regional bus lines connect the city with its surrounding towns and villages. While urban bus lines operate on a frequent timetable, the dense traffic particularly in peak hours leads to frequent delays. Irish Rail maintains hourly services on the main line during morning commute hours in direction to Kilkenny, Carlow and Dublin, as well as during evening commute hours in direction to Waterford, yet significant gaps exist for travel in opposite directions, as well as in weekend/ off-peak hours hence limiting Waterford's capacity as an inbound commuting destination as well as limiting trains for leisurely services. Services to Limerick Junction (with connecting trains to Limerick City) provide very limited connectivity to Limerick City for commuting and leisure purposes. In opposite direction, timetables inhibit the use of trains for commutes to Waterford. Long-distance coach services connect Waterford to Dublin, Cork, Limerick and Wexford. Due to the physical separation and lack of services between Waterford Plunkett Railway Station (located on the north side of River Suir) and the main bus station (located on the south side of the river/ in the city centre), Waterford does not have an integrated public transport system. There are currently no bus services connecting railway station and city centre. This neglects a potential advantage of the city centre over other retail areas as an area where various lines could connect effectively and create optimised access.

The Waterford Metropolitan Area Transport Strategy sets out 13 measures aimed at public transport improvements up to 2040 and beyond. These include connectivity, accessibility, emissions, passenger information, infrastructure design and branding. Relocating the Waterford train station to the North Quays development zone and connecting the new station to the historic city centre via a sustainable transport bridge is the centrepiece of planned improvements.

3.6.3 Active Transport / Green Modes (Cycling and Walking)

Over the past years, cycle lanes have been marked along various arteries leading from the city centre outwards, and physically separate walk- and bikeways have been built along new roads, particularly the Outer Ring Road (bypass). With the extension of the Dungarvan-Waterford Greenway to Grattan Quay/Rice Bridge (north-western entrance to city centre) a direct connection to the western environs has been created. St. John's River Walk provides an alternative to road-side cycle lanes southbound from city centre. Despite these improvements, cycle infrastructure and signage from city centre to the main residential areas remains fragmented. There are no cycle lanes or walkways of acceptable quality connecting city centre with railway station. In many cases, cycle lanes start or end without clear indication of alternatives, leading to uncertainty among all participants and health and safety risks for cyclists who are in a weaker position than motorised drivers. These risks increase as special speed zones with speed limits of 30 km/h remain absent from large parts within the city centre and district centres and on roads connecting directly to the city centre. Hence, accessibility of the city centre and the Retail Core Area by means of active transport remains constrained.

Transport for Ireland (TFI) launched a bike share scheme in Waterford in 2022 and docking stations have been created across the city with a focus on city centre locations, including the main bus station, and important commuter destinations such as SETU Cork Road Campus, IDA Industrial Estate and Hospital. Notably, the train station, Waterford Shopping Centre Lisduggan, Kilbarry Shopping Centre,

as well as several tier 4 local shopping destinations are not covered by TFI bike share as of December 2023.

3.6.4 Modal Split and Integrated Transport

In 2021, the National Transport Authority (NTA) calculated that 70% of trips in Waterford are carried out by car. Only 15% use Active Transport/Green Modes, and a further 3% use public transport. Another 13% specified 'other'.

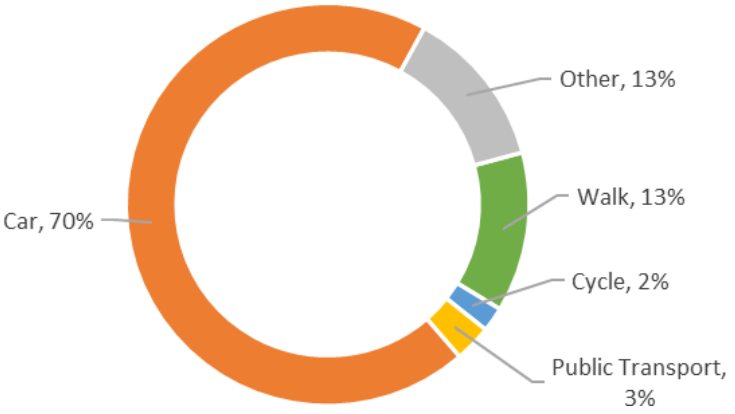


Figure 35: Waterford City Modal Split (Source: KPMG Future Analytics, based on NTA data)

2022 Census data indicate that usage of public transport and active modes of transport have increased in Waterford and its suburbs. However, compared to other cities in Ireland, usage of both public transport and active transport remains very low.

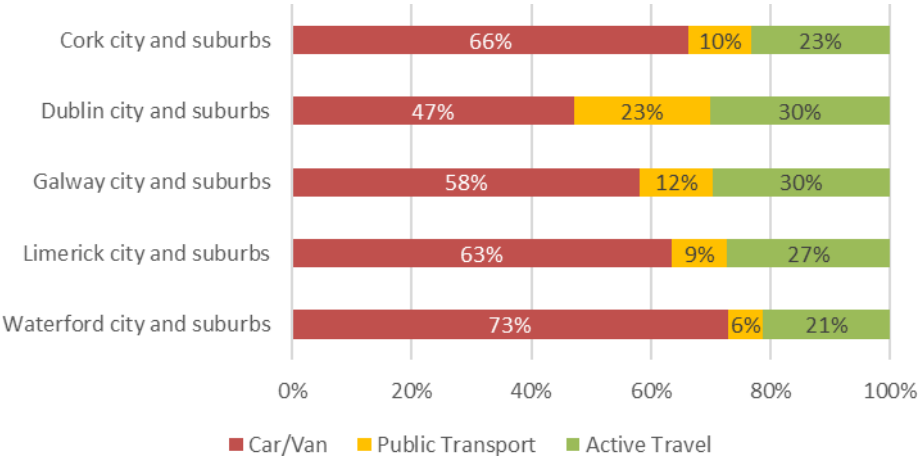


Figure 36: Modal Split Comparison of Cities and their suburbs, excluding categories 'unknown' and 'other' (Source: KPMG Future Analytics, based on CSO data)

Looking at the population travelling to work/education, 20% of the population of the Metropolitan Area uses Active Transport/Green Modes, 6% Public Transport, and 75% Private Motorised Transport, with large variations between the different EDs across the Metropolitan Area. There is a clear pattern discernible between urban and rural parts of the Metropolitan Area.

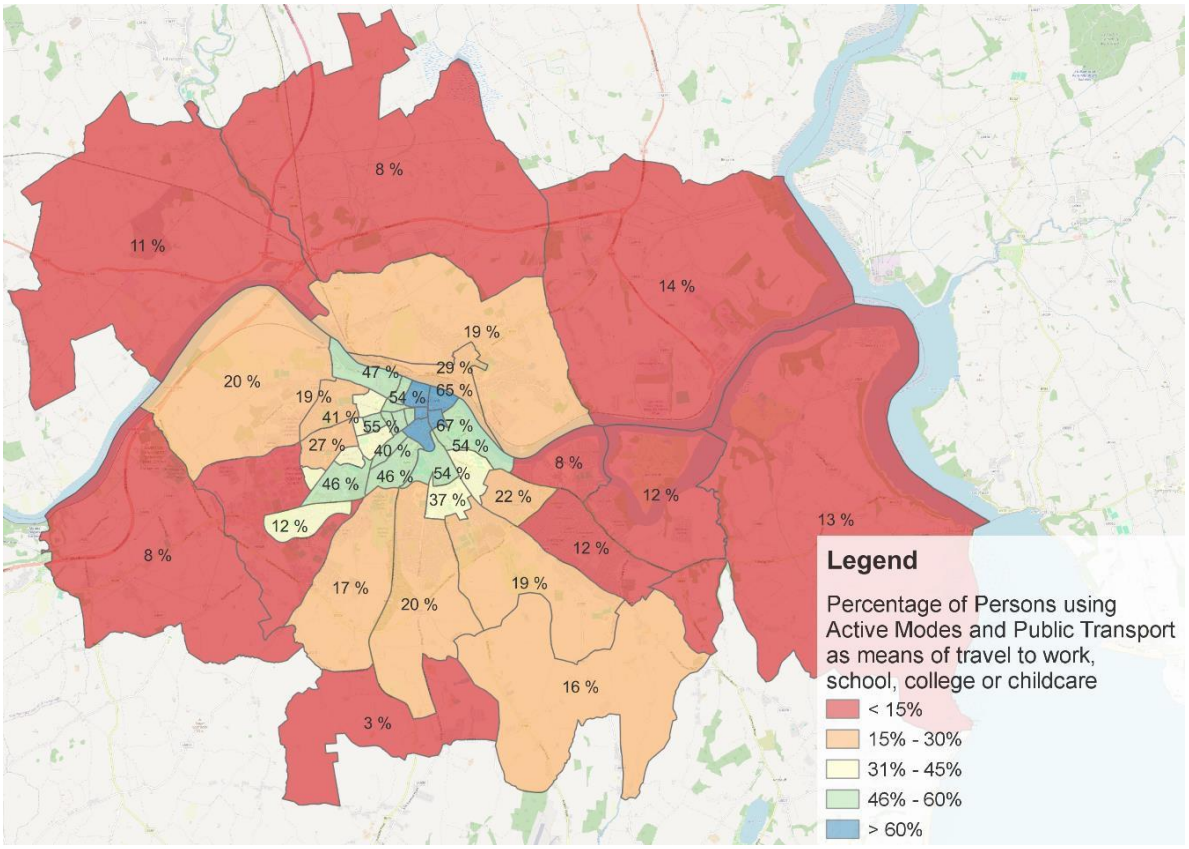


Figure 37: Active Modes and Public Transport Modes as means of travel to work, school, college or childcare, 2022 (Source: KPMG Future Analytics based on CSO)

With an absence of public transport hubs, designated Park-and-Ride facilities, and a fragmented cycling infrastructure, the development of an integrated (cross-mode) transport system faces major challenges. The low percentages of persons using active modes and public transport is reflective of this.

The Waterford Metropolitan Area Transport Strategy sets 15 measures aimed at walkability improvements and 9 measures aimed at cycling improvements for the coming years (lifetime of the strategy). These include connectivity, accessibility, dimensioning, design and maintenance of target infrastructure, rule enforcement, safety, parking, signage, and behavioural change. Connecting active modes and public transport infrastructure, particularly in relation to the new transport hub at the North Quays is essential to increasing the modal shares of walking and cycling. Improvements to connect cul-de-sac residential streets to the main connecting roads are not included in the measures; this would be essential to decrease walk-time to retail locations and reduce dependency on motorised transport.

3.7 Tourism

County Waterford has a unique mix of natural features across the county which offer world class visitor experiences in culture and heritage, outdoor activities, health, and wellbeing. These include a historic city, numerous picturesque towns and villages, a mix of mountains, countryside and coastline, and a wide range of festivals and activities.

Waterford City holds a key position in the regional tourism sector, as Irelands oldest city serves as a gateway to the many attractions of the southeast. Waterford City is now positioned as the tourist centre point for the southeast with numerous attractions in easy reach including Ireland's Ancient East and the Viking triangle.

The County's tourism landscape has been transformed over the last decade with significant investment in flagship visitor attractions, adventure tourism and a range of high-quality events and festivals. This impact is the result of targeted investment by Waterford City & County Council, Failte Ireland and tourism industry stakeholders. Some key projects include:

- Development of the Viking Triangle.
- Relocation of the global brand and visitor centre House of Waterford Crystal.
- Opening of five Waterford Treasures Museums: Medieval Museum, Bishop's Palace, Reginald's Tower; Irish Silver Museum and Irish Museum of Time.
- Launch of the Waterford Greenway 46km off road cycling/walking trail.
- Development of Lismore Heritage Centre.
- UNESCO Global Geopark status for the Copper Coast.
- Development of 39 accredited recreational walking and cycling trails.
- Mount Congreve Gardens & Estate refurbishment and redevelopment.
- Investment in infrastructure and public realm.
- Investment in flagship festivals, including Winterval, Spraoi, Tall Ships, West Waterford Festival of Food, Waterford Harvest Festival, Blackwater Valley Opera Festival and Comeragh's Wild.
- Street lighting in the city centre (City of Light), signposting and finalising the outdoor dining scheme.

However, its potential has not been fully harnessed to date and there is a wide range of tourism policies at a national, regional, and local level to guide, promote and support tourism development in the county. These policies have primarily been formulated to leverage the potential of tourism and maximise the wide-ranging economic and social benefits of the sector.

Investment in Waterford City Centre and the North Quays area will enhance the attractiveness of the city and provide a foundation for further tourism business opportunities. Further investment is planned for:

- The North Quays Regeneration Project,
- The 'Guardian of the Déise' Project'
- Further development of the Waterford Experience centred on the Waterford Viking Triangle and Waterford Crystal Visitor Centre,
- Extension of the Waterford Greenway through the city centre to connect with the New Ross Greenway'
- Extending the Greenway to the west of Dungarvan,
- Developing a Waterford to Tramore and a Waterford to Portlaw/ Carrick-on-Suir Greenway,
- Development of sites of interest along the existing Waterford Greenway e.g. Woodstown Viking Site, Train Station in Kilmacthomas
- The development of the Waterford Cultural Quarter,
- Improved access to the River Suir and Waterford Harbour
- Development of Blueways along the River Blackwater, River Suir and Waterford Estuary,
- To maximise the potential of Waterford as a cruise ship destination.

- Development of a looped route(s) around County Waterford taking in tourist attractors, amenities, trails and heritage assets.
- Development of a regional scale park within the Waterford Metropolitan Area.
- Development of world class activity facility centres for watersports in Ardmore and Tramore in association with Fáilte Ireland.
- Improved public access to the Metalman in Tramore
- Interpretation of Waterford Medieval City Walls.[18]

Specifically, Waterford City & County Council have set out their tourism objectives in the following documents.

3.7.1 Waterford City and County Council Tourism Statement of Strategy and Work Plan 2017 – 2022

This document outlines the vison for tourism within the city and county, it is informed by national and regional plans and policies and formed part of Waterford City & County Council's overall strategic vision for the five years from 2017 to 2022. The aims and objectives include:

- To create a year-round economically successful tourism destination to visitors from within Ireland and from overseas.
- To generate long term and lasting benefits which will enhance and support local communities.
- To realise additional economic growth, jobs, and prosperity through expansion of the counties tourism industry.
- To enhance the reputation and raise the profile of Waterford.
- To achieve maximum potential as the primary tourism destination within Ireland's Ancient East.
- To grow Waterford's share of domestic and international visitors and to increase visitor duration.
- To reduce seasonality

3.7.2 Waterford City & County Volume 1 - Written Statement Development Plan 2022-2028

This document outlines the council's vision to 'support a strong, sustainable, resilient and successful economy, underpinned by tourism, enterprise, innovation and skills, and access to quality education for all'.

The vision and the objectives to achieve it are firmly rooted in sustainability, delivering the growth while being mindful of the social and environmental impacts of the tourism industry.

The key tourism objective is to 'develop, deliver and promote Waterford as a year-round world class tourism destination, with authentic, memorable experiences which attracts local, regional, national and international visitors generating long term and lasting benefits to enhance and support local communities and realise additional economic growth, jobs and prosperity for the people of Waterford'.

The document identifies key flagship tourism projects that will be the focus for development over the lifetime of the Plan.

[18] Source 3.6.2 Waterford City & County Volume 1 - Written Statement Development Plan 2022-2028, ECON23, page 122

3.7.3 Current Context

Tourism in Waterford has undergone a considerable transformation of the past decade with the delivery of flagship tourism attractions, supported with festivals and events throughout the calendar year with the aim of extending the season beyond the traditional holiday periods.

3.7.4 Attraction and Visitor Numbers

According to Fáilte Ireland research Irelands Ancient East attracted over 6 million tourist visits, including 4 million domestic and 2.4 million overseas tourists in 2019, generating 1.5bn in revenue for the region.

Figure 38: Top visitor attraction sites in Waterford (Source; KPMG Future Analytics, based on Fáilte Ireland data)

Attractions such as the Waterford Greenway, named Ireland's Best Visitor Attraction in 2022, provide the infrastructure that facilities the development of new associated businesses, such as visitor accommodation, cafes and bike hire.[19] The greenway has created more than 90 new jobs and with 80% of the visitors coming from outside the county, this feeds into the local accommodation and leisure market[20]. Since opening between 2017 and 2023, the Waterford Greenway has attracted over 250,000[21] visits annually, giving the county a destination tourism status that was lacking since the closing of the

[19] Fáilte Ireland Research
[20] Waterford Greenway & Coastal Trail
[21] Waterford Council News

Waterford Crystal factory in Kilbarry[22]. Completion of the South East Greenway from New Ross to Waterford City is due for 2025.[23]

Retention of tourism expenditure especially in the retail sector, along with the development of appropriate synergistic tourism facilities and activities will be important in the future development of Waterford City, the vibrancy of the retail core area and associated integration with food and beverage offerings, leisure facilities and the wider night-time economy.

Table 4 Top 10 visitor attraction sites in Waterford 2022 (Source Fáilte Ireland)

Visitor Attractions	Total Visitors
The House of Waterford Crystal	75,000
Medieval Museum	55,280
Lafcadio Hearn Japanese Gardens	36,000
Lismore Castle Gardens	32,210
Reginalds Tower	27,910
Waterford and Suir Valley Railway	26,546
Lismore Heritage Centre	24,210
Bishops Palace	18,579
Irish Museum of Time	14,326
Dungarvan Castle	9,798

3.7.5 Overnight Stays and Form of Tourist Stays

The CSO, and in turn Failte Ireland (which source data from the CSO), currently can only provide overseas visitor data up to 2019 and have not yet released any more recent statistics.

More recent data is available for domestic visitors, with the latest information available for 2022. Irish residents took 13.3 million domestic trips in 2022, spending a total of €2.9 billion. They stayed an average of 3.0 nights per trip, a total 34.2 million nights. County Waterford received 422,000 domestic visitors, staying for 1,759,000 nights, with an average stay of 3 nights, and a total spend of €106m[24].

Failte Ireland data indicates that there are 115 registered and approved properties in County Waterford in 2023. These properties provide 2,302 rooms or units with 7,780 bed spaces.

Table 5 Registered Visitor Accommodation in County Waterford 2023 (Source Failte Ireland)

Accommodation Type	Properties	Rooms/Units	Bed Spaces
B&B	15	67	160
Caravan & Camping	5	640	3,275
Guesthouse	3	25	56
Hotel	24	1,435	3,713
Self-catering	46	46	284
Welcome Standard	22	89	292
Total	**115**	**2,302**	**7,780**

[22] Waterford Greenway

[23] South East Greenway

[24] Sources: Central Statistics Office Household Travel Survey and Fáilte Ireland Estimates (Spend)

Across the County, hotels are located primarily in and around Waterford City, Tramore, Dungarvan and Lismore. In the Study Area hotels are focused on Waterford City. Registered hotel accommodation in the County includes:

- Fitzwilton Hotel
- Treacy's Hotel Spa and Leisure Centre
- Dooley's Hotel Waterford
- Granville Hotel
- Tower Hotel and Leisure Centre
- Waterford Marina Hotel
- Travelodge Waterford
- Viking Hotel Waterford
- Waterford Castle Hotel and Golf Resort
- Woodlands Hotel
- Faithlegg House Hotel
- Rhu GlennHotel
- Haven Hotel
- Majestic Hotel
- O'Shea's Hotel
- Greenway manor Hotel
- Clonea Strand Hotel
- Gold Coast Golf Hotel
- Lawlors Hotel
- The Park Hotel and Leisure Centre
- Round Tower Hotel
- Cliff House Hotel

While granular data is not available for AirBnB properties, there is a total of 90no. AirBnB rental properties in the County.

3.8 Summary

The following table summarises main findings from the demographic and housing profile, household expenditure, the retail business landscape, tourism, and transport.

Table 6 Waterford Metropolitan Area Retail Drivers – SCOT Analysis

	Demographic, Housing Profile, Household Expenditure	Retail Business Landscape	Tourism	Transport
Strengths	• Increasing population • Attractive place for immigrants (net migration surplus) • Young population (with net natural population increase)	• Large city centre dominated by historic building structure • Visually attractive and compact city	• Proximity of numerous tourist destinations to historic city centre	• Sufficient parking in walking distance from all retail areas, good accessibility of Tier 2 (L2) district centres
Challenges	• Higher than State average unemployment • Below State average percentage in third-level education • Below State average available income and household expenditure • Housing shortage	• Limited night-time economy • Small-scale retail store sizes • Few High-end brand stores/ limited spending opportunity for higher income	• Limited integration of retail and tourism limits opportunities for retail • Shortage of mid-price range visitor accommodation	• Difficult accessibility of city centre (traffic) • Inconsistent/ unsafe cycling infrastructure • Inefficient public transport
Opportunities	• Continuing population growth increases customer base for retail • Continuing income growth increases market potentials for high-end shopping • Activation of vacancy in city centre building stock could increase footfall and lead to overall increase in attractiveness	• Expected further growth of labour force leads to larger pool of potential employees • Creation of a student city with vibrant night-time life	• Promotion of Waterford as a product and as a year-round destination • Additional visitor destinations in the pipeline, incl. new Greenway links to broader region • Opportunity to optimise integration of increasing number of visitor attractions	• Construction of sustainable transport bridge and transport hub over Suir improves access and connectivity • Modal split goals for active travel modes • Other measures set out in transport strategy, including BusConnects and park-and-ride

			• Link between Tourism and Retail areas • Increasing number of tourists can lead to higher spend	
Threats	• Increasingly expensive housing market • Vacant and underutilised housing stock impacts on city centre's attractiveness	• Potential lack of non-third level education labour • Shortage of qualified personnel (retail, tourism & hospitality) • Risk of sectoral decline if structural issues are not tackled (housing, transport) • Continuing suburbanisation may lead to further doughnut effect in retail	• Risk that inflationary pressures may slow drive to develop additional visitor destinations • Failure to integrate tourism and retail may lead to lower revenue for retail and hospitality businesses	• Continuing low-density settlement expansion adds may add strain on viability of transport infrastructure • Failure to implement sustainable transport solution leads to worsening transport/traffic situation

4.0 Stakeholder Engagement

This Chapter presents the results of stakeholder engagement undertaken in support of the Strategy including the online retail survey and targeted interviews with key stakeholders. The information and insights gathered through stakeholder engagement have informed the Study recommendations presented in Chapter 8.

4.1 Retail Survey

This section summarises the results of the online retail survey carried out from 12th October to 30th November 2023. In total 1,697 responses were received.

4.1.1 Methodology

The survey contained questions relating to where respondents carry out their main food and grocery shopping, top up shopping, comparison shopping (clothing and footwear) and bulky goods (large household appliances and furniture) shopping. The surveys contained questions regarding the respondents' satisfaction with the location they were shopping in, along with the frequency of these types of shopping trips including online shopping. Respondents were also asked to provide feedback on factors that would make them shop locally more often.

The survey was advertised on the Waterford City & County Council and Kilkenny County Council websites as well as on social media accounts, e.g., Facebook, X (formerly Twitter). To target younger demographics specifically, the SETU Students' Union circulated the survey to students via email.

4.1.2 Origin of Survey Responses

Of the total survey responses received, 75.7% of respondents associated with a town/settlement in the MASP while 24.3% associated with places outside the MASP. The key findings are outlined below:

- Overall, 1,464 respondents (or 86.3%) associated with a town/settlement in Co. Waterford in total.
- In Co. Waterford outside MASP, the following origin locations recorded more than 10no. survey responses; Tramore (141no.), Dungarvan (35no.), Dunmore East (31no.), Kilmeaden (22no.), and Portlaw (14no.). All other origin locations recorded less than 10no. survey responses.
- Overall, 221 respondents (or 13.0%) associated with a town/settlement in Co. Kilkenny in total of which 6% associated with Ferrybank.
- In Co. Kilkenny outside MASP, the following origin locations recorded more than 10no. survey responses Co. Kilkenny (town not specified) (34no.) and Kilkenny City (10no.). All other origin locations recorded less than 10no. survey responses.
- A limited number of survey responses were received from respondents that associate with other Counties including neighbouring Counties of Wexford (6no.) and Tipperary (5no.) as well as Co. Limerick (1no.).
- All origin locations outside the MASP with a notable number of survey responses (10 or more) are located within a 30 minutes-drive time catchment of the Waterford MA boundary.

Table 7 Summary of Origin of Survey Responses by County

Location	No. Responses	% Responses
Waterford MA	**1284**	**75.7%**
MA (Co. Waterford part)	1156	68.1%
MA (Co. Kilkenny part)	128	7.5%
Outside MA	**413**	**24.3%**
Co. Waterford (Outside MA)	308	18.1%
Co. Kilkenny (Outside MA)	93	5.5%
Co. Wexford	6	0.4%
Co. Tipperary	5	0.3%
Co. Limerick	1	0.1%
Total	1,697	100.0%

Table 8 Summary of Origin of Survey Responses by County and Settlement

County	Town/Settlement
Co. Waterford	Waterford MA (Co. Waterford part), Annestown, Ardmore, Avondale, Ballylaneen, Bunmahon, Cappoquin, Clashmore, Clonea Power, Co. Waterford, Coxtown East, Dungarvan, Dunhill, Dunmore, Dunmore East, Fenor, Glenmore, Gorey, Hook Peninsula, Kilkenny, Kill, Killkenny, Kilmacthomas, Kilmeaden, Kilrossanty, Knockboy, Lemybrien, Lismore, Mooncoin, Prefer not to say, Piltown, Portlaw, Rathgormack, Rossduff, Saleens, Stradbally, Tallow, Tramore and Woodstown
Co. Kilkenny	Waterford MA (Co. Kilkenny part), Ballyhale, Ballyragget, Bennettsbridge, Borris, Callan, Castlecomer, Clara, Glenmore, Graiguenamanagh, Hugginstown, Inistioge, Co. Kilkenny (town unspecified), Kilkenny City, Knocktopher, Mooncoin, Mullinavat, Paulstown, Piltown, Thomastown and Tullogher
Co. Wexford	Enniscorthy, New Ross and Wexford
Co. Tipperary	Carrick on Suir, Thurles and Tipperary
Co. Limerick	Co. Limerick (town unspecified)

4.1.3 Retail Spending Patterns

The retail survey results provide key insights into retail spending patterns in the Study Area and the surrounding catchment area. The key findings are summarised in this section.

Key findings relating to **convenience** spending patterns in the Study Area are summarised below:

- 82% of Metropolitan Area respondents routinely undertake **convenience** shopping at locations in the Metropolitan Area[25];
- Based on analysis of the survey results, a convenience spending retention rate of **82%** has been applied in this Study which informs the retail floorspace projections presented in Chapter 7.

Key findings relating to comparison spending patterns in the Study Area are summarised below:

- 82% of respondents from the Metropolitan Area regularly undertake **comparison** shopping at locations in the Metropolitan Area[26] ;

[25] Includes daily, weekly and monthly responses for Food and Grocery Shopping and Top Up Grocery Shopping
[26] Includes daily, weekly, monthly and less than monthly responses for Clothing, Footwear and Jewellery and Art, Books and Music

- 85% of respondents from the Metropolitan Area regularly undertake **bulky comparison** shopping at locations in the Metropolitan Area[27] ;
- **Comparison** shopping patterns are highly distributed with 41% of Metropolitan Area respondents stating that they also regularly visit other shopping locations outside the Study Area[28];
- Of this 41%, 20.4% of Metropolitan Area respondents visit 1no. other shopping location on a routine basis while 10.5% visit 2no. locations, 6.1% visit 3no. locations, 2.5% visit 4no. locations, and 1.0% visit 5no. locations;
- Kilkenny, Dublin, Cork and Kildare Village are the most popular shopping destinations and the primary reasons for shopping in these other locations is the presence of large brands and retailers;
- Based on analysis of the survey results, a **comparison** spending retention rate of 82% and a **bulky comparison** retention rate of 85% has been applied in this Study which informs the retail floorspace projections presented in Chapter 7.

The retail survey results also provide insights into retail spending inflows from the surrounding area. Key findings relating to retail spending inflows are summarised below:

- The majority of survey responses from outside the Metropolitan Area associated with locations in Co. Waterford or Co. Kilkenny.
- 41% of respondents from outside the Metropolitan Area regularly undertake convenience shopping at locations in the Metropolitan Area[29];
- 33% of respondents from outside the Metropolitan Area regularly undertake comparison shopping in the Metropolitan Area[30];
- 22% of respondents from outside the Metropolitan Area regularly undertake bulky comparison shopping in the Metropolitan Area[31].

4.1.4 Survey Results Summary

This Section presents a summary analysis of survey respondents and the key findings emerging from the survey results. A detailed analysis of the survey is presented in Appendix 2.

The demographic characteristics of respondents is summarised below:

- A total 64% of respondents identified as female, 35% as male and 1% did not state their gender.
- A majority (52%) of respondents belonged to the middle age groups 35-44 years and 45-54 while 29% were 55 years and older and 19% were 34 years and younger.

The key findings of the retail survey relating to the shopping offer in Waterford City Centre are summarised below:

- The majority of respondents consider Waterford to have a poor retail environment;
- The main deficiencies stated are lack of large brands and retailers, low quality shop fronts, poor access, and a poor quality of local and independent retailers;
- However, selection of places to eat and drink in the City Centre is generally considered positive;

[27] Includes weekly, monthly and less than monthly responses for Homeware, Furniture and Bulky Goods
[28] Includes daily, weekly and monthly responses for alterative shopping locations.
[29] Includes daily and weekly responses for Food and Grocery Shopping and Top Up Grocery Shopping
[30] Includes daily, weekly, monthly and less often responses for Clothing, Footwear and Jewellery and Art, Books and Music
[31] Includes weekly, monthly and less often responses for Homeware, Furniture and Bulky Goods

- Another important aspect about the shopping experience in Waterford is a perceived lack of entertainment/ leisure options;
- Kilkenny, Dublin, Cork, Kildare Village are the most popular alternative shopping destinations, and the primary reasons for shopping in locations outside of Waterford is the presence of large brands and retailers in those locations;
- Clothing, footwear, jewellery, art, books, music, homeware, furniture and bulky goods are the most popular types of products purchased online;
- Respondents would increase their in-person shopping frequency/spend in Waterford if there was greater variety and choice of products and particularly fashion retailer, improved accessibility, and a livelier atmosphere/better appearance;
- The majority of respondents visiting shopping areas in Waterford use private car or walk. Reported use of public transport, bicycle or other modes of transport is low.

4.1.5 Survey Results Summary for Young Demographic Cohorts

A total of 334 respondents (19% of all respondents) stated they were part of the age groups under 18, 18-24, and 25-34 years. A particular look at these cohorts was expected to reveal a partly different picture when compared to all respondents, given specific characteristics of these age groups, such as the role of education, levels of affluence, shopping preferences and modes of travel. Yet, cohort-specific survey results did not yield significant deviations from overall results of all respondents. The following details are noteworthy:

- Compared to other shopping destinations in the Metropolitan Area, Waterford city centre is a relatively more significant shopping location for young respondents compared to all respondents;
- A relatively higher proportion of young respondents travel to retail centres/ shopping streets by walking, cycling, bus or taxi compared to all respondents, while relatively fewer young respondents use a car;
- A relatively higher proportion of young respondents visit retail centres/ shopping streets with the purpose of going to a restaurant or café, pub or bar;
- Young respondent's average retail spend is lower;
- Young respondents are slightly less pessimistic about the retail environment as 8% consider Waterford City to have a 'good retail environment', 25% 'an okay retail environment' and 67% 'a poor retail environment';
- Relatively more young respondents shop in Dublin compared to all respondents, while fewer shop in Kilkenny, Clonmel and Wexford;
- For young respondents, a 'good selection of places to eat and drink during the day' and 'at night' as well as 'large brands and retailers' were more important reasons for shopping at locations outside of Waterford compared to all respondents. On the other hand, 'attractive shop fronts' was a less important reason for shopping at locations outside of Waterford;
- Young respondents reported to shop online for 'clothing, footwear and jewellery' relatively more frequently compared to all respondents;
- 'Better deals and more affordable' was a more significant reason for young respondents as a main reason for shopping online compared to all respondents.

4.2 Stakeholder Interviews: Strategic Conversations

From 5th September 2023 to 9th February 2024 a total of 28 stakeholders have been contacted, with 20 of these have interviews been conducted. These include council departments, business support organisations/groups, retail businesses, a real estate company, and an accommodation provider.

Table 9 List of stakeholders interviewed

	Organisation	Industry
1	Waterford City & County Council Director of Economic Development	Council
2	Waterford City & County Council Head of Rural Development	Council
3	Kilkenny Local Enterprise Office	Business support
4	Waterford Local Enterprise Office	Business support
5	Waterford Business Group	Business support
6	Kilkenny Chamber	Business support
7	Waterford Chamber	Business support
8	Waterford Retailers Group/ Meraki Marketing	Business support
9	George's Court Shopping Centre	Retail business
10	CountryStyleFoods	Retail business
11	Altitude - The Bicycle People	Retail business
12	The Book Centre	Retail business
13	Purcell Properties (Property Management for City Square Shopping Centre)	Real estate
14	City Square Shopping Centre/Tower Hotel	Real estate / Hotel / Leisure
15	Granville Hotel	Hotel / Leisure
16	Dooley's Hotel	Hotel / Leisure
17	Mc's Outdoor Store	Retail business
18	Phelan's Pharmacy	Retail business
19	Fitzgerald's Menswear	Retail business
20	Frisby Homes	Real estate / Construction

This section provides an overview of the challenges, opportunities and possible actions identified by stakeholders in relation to the retail environment in the Waterford MA.

4.2.1 Overall shopping experience

Overall, Waterford is not perceived to have a gravitational pull as a shopping destination. This is mainly due to the limited retail offering compared to towns nearby, such as Kilkenny, Clonmel, Wexford and Dungarvan, which are perceived by stakeholders as providing a better retail experience relative to their size and being able to take advantage of their respective local catchment areas. In contrast, consistent growth of Waterford and its large catchment, as well as growing affluence have not yet translated into any significant improvement of the retail offering in the city. Waterford's main deficiency is often seen in low cluster spending due to the absence of high-end offers. When comparisons are made with other cities with regard to retail offer, footfall, and catchment, Galway and Limerick are often mentioned. Stakeholders wish to see Waterford developing the lively atmosphere that Galway is reported to have,

while stakeholders often point to Limerick as a negative example where out-of-city shopping centres have reduced the pull of retail core areas.

4.2.2 Retail areas in Waterford City

According to nearly all stakeholders, the city centre should be the primary location for retailing in the Waterford MA. Many stakeholders contend that the continued spread of retail development across district centres and out-of-centre retail park locations has potential to undermine the city centre. Some respondents note that the types/scale of shops present in the district centres and out-of-centre retail parks is not consistent with their scale or location and does not contribute to sustainable development.

4.2.3 Mix of uses and retail offer

Stakeholders generally note that the city centre is dominated by coffee shops as well as shops primarily serving cost-conscious customers. National and international brands of large-scale fashion retailers and department stores, and shops serving higher spending customers are largely absent. Ardkeen (district centre) is seen by some stakeholders as partly compromising the role of the city centre due to the presence of shops focusing on comparison goods of the higher-end product range. If latter mentioned retail were to develop further in the city centre, the resulting footfall could encourage additional shops to settle which are needed to create a diverse retail environment. Stakeholders recognise that there are quality independent boutique shops in the city centre and that incentives for additional independent retailers to locate in the City Centre could help Waterford develop a unique retail profile. Current developments of bulky goods stores establishing new branches in Waterford's out-of-city (along Outer Ring Road) locations is generally seen as adding to the city's offering. Some stakeholders see a potential in the North Quays as an additional location for bulky goods stores, as this location is close to the new transport hub and opposite to the city centre.

4.2.4 Night-time economy

The Apple Market/John's Square is generally considered to be the centre of the night-time economy of Waterford, with a number of restaurants, pubs, takeaways, clubs and late-night shops present. Outside of that precinct, hospitality businesses are scattered, and there is no defined 'walking trail' which encourages spontaneous strolling during evening hours. While Waterford is thought by most stakeholders to be well-served with hospitality businesses, concerns persist regarding the long-term viability of businesses. Due to staff shortages and affordability pressures, trends in recent years have gone towards restricting opening times. Some stakeholders point to the lack of an entertainment centre that represents the size of Waterford city.

4.2.5 Changing face of retail and reasons for vacancy

The trend to online shopping, Brexit, the uncertainty around the viability of department stores, as well as the Covid-19-pandemic have had lasting impacts on retail in Waterford, with increased visible vacancy being the result in the city centre. Despite Waterford's growth, vacancy rates remain high. While small floor-size and limited opportunities to repurpose historical buildings are noted as reasons by some stakeholders, most stakeholders point at a general lack of attractiveness that is attributable to constrained accessibility/ traffic bottlenecks, a hidden character of the city centre, unattractive buildings/ shopfronts, limited navigation within the city centre, and inflationary pressure and related risk-aversion to set up business. At the same time, the constraints put in place by macro-economic conditions are thought to provide an opportunity as they could give impetus to a reorientation towards incentivising small-scale independent retailers.

4.2.6 Waterford's catchment area

According to some stakeholders, there is a lack of awareness about the size of Waterford city and its catchment area. Although Waterford's catchment fulfils the requirements of many of the international retail brands that have expanded into Ireland, there is an information deficit about Waterford as a regional centre of critical size. Infrastructure developments in recent years, such as the completion of

the M9 motorway and the improvement of the N25 westbound to Cork and eastbound to Wexford/ Enniscorthy have significantly boosted Waterford's regional accessibility. Communicating data on catchment area, available income etc. is therefore key to bringing Waterford on the agenda as a location for international retail businesses.

4.2.7 Accessibility and parking

Accessibility and parking are considered by nearly all stakeholders to be important factors that negatively impact Waterford city centre as a flourishing retail destination. The South Quays are perceived as a major bottleneck where traffic flow is severely constrained. This is partly attributed to the high amount of transit traffic that uses the South Quays has a short-cut to the other side of River Suir. With parking facilities too spread-out, insufficiently marked and too expensive (relative to out of city locations and shopping destinations elsewhere in the country), the city centre is at a disadvantage compared to other locations. Public transport suffers from frequent delays as separate bus lanes are only partly in place. Walkways from residential neighbourhoods into the city centre are generally well-developed although the need for more attractive walkways from and to parking facilities and to the quays is pointed out. Cycling infrastructure to the city centre has significant gaps and is generally considered unsafe, particularly during peak traffic hours. Ardkeen, despite of fulfilling the role of a district centre, lacks straightforward connectivity for pedestrians and cyclists and instead is designed to favour car users.

4.2.8 Atmosphere and streetscaping

Most stakeholders observe an improving attractiveness of public space as a result of investment in streetscaping with attention to design detail. Well-implemented examples are walkways and car lanes on the same level, speed limits and traffic reduction, which provides a greater sense of comfort and security, as well as the choice of materials, the installation of greenery and street furniture, which create a welcoming space. Stakeholders point to Cathedral Square, Barronstrand Street/ Broad Street, and Patrick Street/ Broad Street junction as positive examples. Connecting roads towards points of attraction, main parking facilities and residential areas should be improved using similar concepts of layout and design and intelligent signposting, thus leading to improved walkability and a perceived reduction of walk-time from parking facilities to and within the retail/ tourist/ cultural areas.

4.2.9 Safety and nuisance

Frequent reports of antisocial behaviour, including harassment, noise nuisance, and drug consumption in the public realm are widely mentioned as issues that discourage customers from frequenting the city centre. Stakeholders point to the urgent need of a committed An Garda Síochána presence in key shopping locations. Stakeholders also note that visible signs of homelessness on the streets in the city centre have increased.

4.2.10 Dereliction of building stock

Most stakeholders have pointed to the high rate of dereliction of building stock in Waterford's historical city centre which is visible in the shape of vacancies, and crumbling façades and shopfronts. While the appearance of buildings leaves unfavourable impressions with locals and visitors, the absence of residents in the city centre also prevents the area from developing a livelier atmosphere. Repeatedly, stakeholders pointed to the opportunity to provide student housing as a means to invigorate the city centre. More generally, Waterford City & County Council is expected to play a role in incentivising property owners to improve building conditions and façade appearances.

4.2.11 Council focus on public space management and city centre marketing

Waterford City & County Council are expected by nearly all stakeholders to assume a more active role in providing business supports and improving and managing public space and public services, particularly in the Retail Core Area.

Specifically, retailers and business representatives call for a dedicated Retail Core Area management group established by Waterford City & County Council that focuses on two key areas: First, fostering an enterprise culture by providing incentives for new retail businesses, developing and delivering in dialogue with retailers a marketing strategy and social media campaign, and liaising with training providers to offer retailers marketing supports; and second, advancing priority investment in city centre improvement and active travel-friendly streetscaping (e.g., through involving the public, initiating competitions), liaising with An Garda Síochána to ensure safety and reducing public disorder, taking action to promote cleanliness of public premises, and encouraging and supporting shop owners to improve shop fronts.

4.2.12 Opportunities from tourism

All stakeholders note that Waterford's tourism infrastructure has expanded and diversified in recent years. House of Waterford (Waterford Crystal) and the Viking Quarter have been integrated into an experience of world-class character, according to most stakeholders. Linking and connecting the Waterford-Dungarvan and Waterford-New Ross greenways into the city centre presents an opportunity to join different tourist experiences with the retail centre. According to most stakeholders, largely untapped potentials lie in an increased visibility of the Waterford as Ireland's first settlement, city walls, arts installations, music culture, and the utilisation of the riverfront along the North and South Quays, as well as the connecting city tourist sites around Mount Congreve, Dunmore East/ Tramore/ Copper Coast and the Comeragh Mountains. Expanding on and moulding these separate destinations into a unified tourist experience could lead to a significant increase in the number of visitors into the Waterford region translating into overnight stays and opportunities for retail. Some stakeholders compare the potential effect to Galway where tourist numbers are multiples of those in Waterford.

Despite recent positive developments, tourist arrivals often do not translate into overnight stays, with tour operators often scheduling only a short stopover in the House of Waterford/ Viking Quarter precinct before moving on to other destinations. Tourists are not actively encouraged to frequent areas outside of the House of Waterford/ Viking precinct. The need for Waterford City & County Council to engage with tour operations has been identified by some stakeholders as an important step to ameliorate this situation.

Broad consensus among stakeholders has been expressed around the need for a visible tourist information centre at a prominent gateway location, that can guide tourists to the various destinations across city and wider region. Another widely voiced constraint lies in the insufficient and incoherent signage between tourist and retail destinations; clearly designated and attractively designed pathways should link points of interest and encourage walking in between.

4.2.13 Opportunities from festivals

Stakeholders note that the establishment of festivals such as Summer Sessions, Spraoi, and Winterval have contributed to more footfall in the city centre and to greater awareness of Waterford as a visitor destination. Adding more indoor and outdoor cultural events, such as culinary markets, design markets, music events, particularly in the winter season has the potential of generating a feeling of Waterford being a lively and 'happening' city that could attract more recognition and footfall from elsewhere.

4.2.14 Opportunities from the North Quays developments and additional river crossing

The rejuvenation of the northern riverfront through the North Quays Development Zone is widely considered as a transformational step for the growing city as it has the potential of providing a 'gateway function' for city centre and metropolitan area. For the project to deliver, stakeholders point to the need to ensure the right mix of retail in the North Quays that does not cannibalise but strengthen the role of the city centre as the primary retail core. Stakeholders also point to the need of an integrated transportation hub on the north side that ensures ease of connectivity into the historic city centre and residential areas in the city, Co. Waterford, and Co. Kilkenny alike. Given the often-adverse weather

conditions, the sustainable transport bridge has to be well-designed in order to ensure usability at all times.

The dividing character of the South Quays due to traffic, along with the primary use of the South Quays as surface parking is considered as 'waste of space' and limiting Waterford's opportunity to create a lively riverfront experience that integrates with the historic city centre. Some stakeholders point out that parking facilities should concentrate in the North Quays and in multi-storey form on either end of the South Quays, along with locations on the western and eastern ends of the city centre.

According to most stakeholders, the North Quays development also provides an opportunity for a large-scale convention space and a large-scale hotel. This would enable the growing number of IDA companies to carry out sizeable events, as it would allow for national and international fairs and events to consider Waterford as a destination. It is frequently pointed to Killarney as an example. Some stakeholders mention the North Quays development site as having the potential as a location for a public amenity; a facility such as a municipal leisure centre. Such a facility would be needed to serve the demand from a growing city and regional population and to counterbalance an undersupply of leisure facilities in the South East.

4.2.15 Retail in Ferrybank

Ferrybank is currently perceived as being disconnected from Waterford City. This is expected to change with the developments along the North Quays. Yet, given Ferrybank's size and proximity to the city centre, stakeholders point to the risks involved in permitting all types of retail in this area. Preferably, retail in Ferrybank should focus on convenience shopping for residents. Some stakeholders emphasise that even bulky shopping on the car-accessible North Quays/ Ferrybank could complement the convenience and comparison goods shopping that should predominate in the city centre.

4.2.16 Summary

The key recommendations raised by stakeholders to address the challenges and opportunities facing Waterford city centre are summarised below:

- Increase awareness of Waterford's growing and affluent catchment area amongst investors, developers and retailers to encourage development and investment in the City Centre.
- Improve the comparison shopping offer by attracting national/international fashion, department stores and higher-end retailers (currently limited) to complement existing quality independent retailers in the City Centre.
- Reduce congestion in the City Centre to improve the reliability of public transport and encourage active travel in the centre (walking / cycling).
- Improve accessibility and affordability of public car parking including a need for improved signage, better pedestrian links to the city centre and more competitive pricing.
- Improve pedestrian connectivity between the various City Centre quarters by providing an attractive, safe and well-lit pedestrian circuit to increase footfall in central areas during daytime and evening hours.
- Urgent need for a committed An Garda Síochána presence in key shopping locations to deter antisocial behaviour in the public realm.
- Need for a dedicated Retail Core Area management group established by WCCC to take a lead role in two key areas:
    - Providing incentives for new retail businesses; delivering a marketing strategy and social media campaign promoting Waterford City Centre and organising marketing supports for retailers;
    - Advancing priority investment in city centre improvement and active travel-friendly streetscaping, liaising with An Garda Síochána to reducing public disorder, promote cleanliness of public premises, and encouraging shop owners to improve shop fronts.

- Encourage tourists to visit areas outside of the Viking precinct by providing clear signage between tourist and retail destinations linked via attractive pathways and a visible tourist information centre to guide tourists to the other destinations across the city/wider region.
- Attract national and international fairs and events to Waterford through the delivery of a large-scale convention space and hotel (currently lacking) as part of the North Quays development.

5.0 Retail Health Checks

5.1 Overview

This Chapter provides a detailed retail health check assessment for Waterford City and all Tier 2 (L2) District Centres contained in the retail hierarchy for the Waterford Metropolitan Area.

The health check assessments are based on the indicators prescribed in Annex 2 of the Retail Planning Guidelines (2012) ('the Guidelines') reproduced in the table below. Health checks provide useful insights into the vitality and viability of retail centres with a specific focus on retail performance and potential. It should be noted that the health check assessments represent a 'snapshot in time' since retail centres are dynamic entities. The Guidelines states that a healthy centre should possess four key qualities:

- Attractions - The range and diversity of shopping and other activities which draw in customers and visitors.
- Accessibility - Accessible to the surrounding catchment area via a good road network and public transport. Provide good linkages between car parks, public transport stops and the attractions within the centre.
- Amenity - Attractive in terms of environmental quality and urban design and safe with a distinctive identity and image.
- Action - Development and improvement projects should be implemented efficiently; there should be regular and effective cleaning and maintenance and there should be co-ordinated town centre management initiatives to promote the continued improvement of the centre.

The key outcome of health checks is the identification of recommendations to sustain and improve performance based on the identified strengths and weaknesses. The findings that emerged from stakeholder engagement (refer to Section 4) have been vital in informing the recommendations.

Table 10 Retail Planning Guidelines Health Check Indicators

Health Check Indicators	
Diversity of Uses	Environmental Quality and Public Realm
Retailer representation and Competitiveness	Perception of safety and occurrence of crime
Commercial vacancy levels	Shopping rents and commercial yields
Accessibility	Customer views and behaviour

The health checks have been informed by a range of qualitative and quantitative data including primary data collected as part of this Study as detailed in the table below. Desktop-based land use surveys have been carried out to analyse the diversity of retail and commercial uses and to quantify the amount of the retail, other commercial and vacant floorspace in centres. These surveys have been supplemented by site visits undertaken by KPMG in December 2023-Janaury 2024 and by stakeholder engagement undertaken by KPMG in October 2023-Janaury 2024 (refer to Section 4).

Table 11 Health Check Data Sources

Health Check Indicator	Primary Data Sources	Secondary Data Sources
Attractions	Site Visits, Retail Survey and Stakeholder Interviews.	Fáilte Ireland
Accessibility	Site Visits, Retail Survey and Stakeholder Interviews.	
Environmental Quality and Amenity	Site Visits, Retail Survey and Stakeholder Interviews.	
Perception of safety and occurrence of crime	Site Visits, Retail Survey and Stakeholder Interviews.	
Diversity of uses and Competitiveness	Site Visits, Retail Survey and Stakeholder Interviews.	GeoDirectory
Multiple representation	Site Visits, Retail Survey and Stakeholder Interviews.	GeoDirectory
Levels of vacancy	Site Visits, Retail Survey and Stakeholder Interviews.	GeoDirectory
Shopping rents and commercial yields		Online commercial property listings (daft.ie and agent websites)

5.2 Waterford City Centre

5.2.1 Introduction

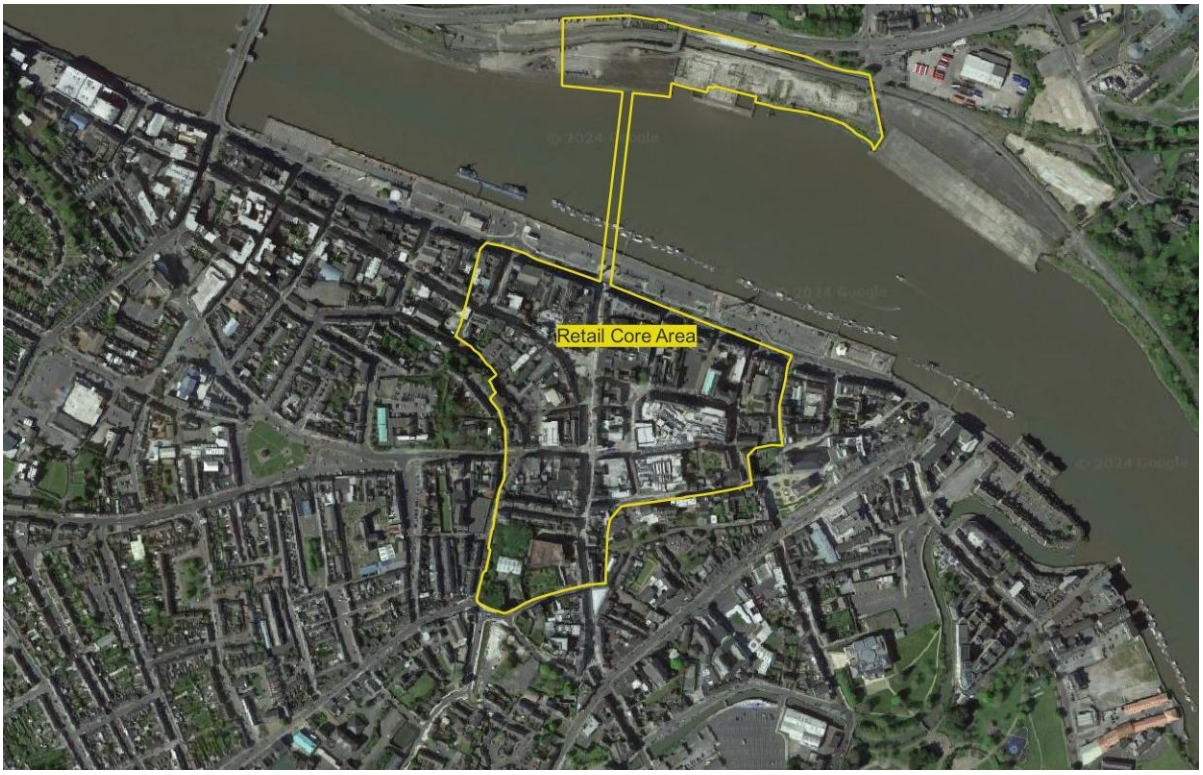


Figure 39: Waterford City Retail Core Area Aerial (Source: KPMG Future Analytics, based on Google Maps)

Waterford City is the principal urban centre in the County and is the only Tier 1 Metropolitan centre in the retail hierarchy for the County and the Metropolitan Area. The Retail Guidelines (2012) define the function of Metropolitan centres as providing *'a range of high-order comparison shopping which is largely unmatched in smaller cities and towns.'*

Within the City Centre, retail, retail services and other commercial uses are concentred in Retail Core Area and extend along adjoining streets to the west along O'Connell Street, to the south along Johns Square and to the east within the Viking Triangle and The Mall. As identified in the Waterford Development Plan, the City Centre has evolved to contain several areas with a distinctive character informed by the mix of uses and urban character:

- The Retail Core Area: includes the historic city centre around John Robert Square and connecting shopping streets and extends across the new Sustainable Transport Bridge (currently under construction at time of writing) to the North Quays (Ferrybank).
- Cultural Quarter to the west of the Retail Core Area: focused on Garter Lane and along O'Connell Street which overlaps with the Retail Core Area at its western end.
- Tourism & Heritage Quarter to the east of the Retail Core Area: focused on the Viking Triangle and The Mall. Includes Bailey's New Street, Constitution Square, Cathedral Square, and Charles Bačik Plaza.
- Evening & Night-time Quarter to the South of the Retail Core Area: focused on the Apple Market and John Street.
- New mixed residential and commercial development areas located in North Quays Planning Scheme area immediately to the west and east of the Retail Core Area.

The primary retail locations which contain national multiple retailers are Barronstrand Street, John Roberts Square and the City Square Shopping Centre. Other traditional shopping streets within the zone 1 of the Retail Core Area include Michael Street, Broad Street, Great George's Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter's Street. All remaining streets in the Retail Core Area are identified as Zone 2.

5.2.2 Diversity of Uses

The City Centre provides a broad range of retail, tourism, educational, cultural, service and leisure activities which act as attractors that support the vitality and viability of the centre.

5.2.2.1 Retail Offer

As detailed in the table below, the Retail Core Area contains 99no. retail units of which the majority (86%) are comparison retailers and 11% are convenience retailers. Understandably, given its historic urban layout the Retail Core Area contains very few bulky retail units (3no.). National retailers are generally concentrated in Barronstrand Street, John Roberts Square and the City Square Shopping Centre. These Retail Core Areas also contains quality independent comparison retailers.

Table 12 Diversity of retail uses in Waterford Retail Core Area

Use	No. Units	% of units
Bulky	3	3%
Comparison	85	86%
Convenience	11	11%
Petrol station	0	0%
Total	99	100%

The City Square Shopping Centre is anchored by Dunnes Stores with a strong representation from national retail brands. The gross floorspace of the Centre is c. 18,580sq.m. and is served by a car park with 490 spaces access from the High Street. The centre was extended and renovated in 2017-2019 including a new food court at the upper level, internal alterations, and two larger retail units (c. 600sq.m. and 900sq.m.) over two levels with an upgraded façade/entrance on Arundel Square (Pl. Ref. 16356). The eastern Peter Street/ Olaf Street entrance on the other side of the centre however now appears somewhat dated. In 2022 the Centre was sold by US-company Marathon Asset Management to an Irish private individual investor.

Retail brands represented in the centre including Dunnes, Holland & Barrett, Carraig Donn, River Island, JD Sports, Peter Mark, GameStop, Specsavers and Starbucks. The most recent addition to the centre is Dubray Books which opened in November 2023 taking c. 600 of the new floorspace completed in 2019. The remaining new 900 sq.m. unit is vacant at present. Planning permission was granted for alterations to the vacant former Debenhams anchor unit in the centre to provide two units of 1,466sq.m. and 589sq.m (Pl. Ref. 2360358). It is understood that Aldi will move into the larger unit during 2024.

Figure 40: City Square Shopping Centre before and after refurbishment (Image source: Google Streetview)

There are two further purpose-built shopping centres in the City Centre. George's Court shopping centre is well connected to primary shopping streets in the Retail Core Area with entrances on George's St and Barronstrand St. The Railway Square shopping centre is located to the south of the Retail Core Area adjacent to Tesco Superstore on Poleberry Road and contains an Odeon Cinema and TK Maxx store however much of the remaining ground floor area is vacant except for two food and beverage outlets.

A limited amount of new retail floorspace has been delivered within the City Centre in recent years. The most recently completed retail units are the two new units in City Square Shopping Centre in 2017-2019. Due to the historic layout of the city, there are relatively few Opportunity Sites large enough to accommodate modern retail floorplates. Opportunity Sites are detailed in Appendix 5 and discussed further in Section 6.2.4 and Section 8 of this Report.

There is currently no additional new retail floorspace planned in the historic Retail Core Area to the south of the river. There are however a significant number of planning permissions/applications in this area for change of use and refurbishment of vacant and underutilised commercial properties including provision of 'over the shop' living and associated public realm upgrades. WCCC has obtained or is seeking permission for significant mixed-use development on several Local Authority-owned sites including, but not limited to:

- Parade Quay: commercial and apartments and public realm upgrades (Part 8 proposed).
- Munster Express Merchant's Quay: technological urban lab (Part 8 permitted).
- 70 & 71 O' Connell Street: retail/commercial unit and residential apartments (Part 8 permitted).

A summary of proposed and extant planning applications for commercial and mixed use development in the City Centre is enclosed at Appendix 6.

In terms of the existing retail offer, the City Centre benefits from strong representation from independent retailers which differentiates its retail offer from that of competitor centres. There is a particular concentration of quality independent retailers on Michael Street, John Street, Patrick Street, John Roberts Square (O'Flynn's Butchers) each with a unique character. Michael Street has high representation of independents including a variety of specialist food stores (including Widgers Butchers, William Greer Cake Shop) and independent comparison shops (Finders Keepers, Vintage Factory, Luca Records) alongside a mix of service and food and beverage outlets. John Street has high representation of food and beverage outlets including restaurants, bars and pubs alongside a smaller number of independent retail service units retail shops. However, there is an over concentration of takeaway outlets on John Street with 6 no. outlets recorded during site visits. An over concentration of shops selling vaping products was also recorded on John Street and Michael Street with 6 no. such outlets.

Patrick Street contains a number of successful quality independent retail stores (including Alfie Hale Sports, Spokes Cycles) and food and beverage outlets (including MoMo Restaurant and Seagull Bakery) as well as the quality of the public realm and pedestrian environment is relatively poor here compared to much of the Retail Core Area which had benefitted from pedestrianisation and public realm upgrade works.

5.2.2.2 Tourism, Culture and Leisure Offer

Tourism in Waterford City has undergone a considerable transformation over the past decade with the delivery of flagship tourism attractions, supported with festivals and events throughout the year. Waterford City is a tourist centre entry point for the southeast with numerous attractions in easy reach including Ireland's Ancient East, the Viking Triangle and the Waterford Greenway. Completion of the Southeast Greenway from New Ross to Waterford City is due for 2025.

The City Centre provides a wide range of tourism, cultural and leisure activities focused around the Viking Triangle and The Mall. The House of Waterford Crystal located on the Mall is a major tourist destination and since it opened in 2010 a number of new tourist attractions have opened in the surrounding Viking Triangle area, including Irish Silver Museum (2021) and the Irish Museum of Time (2021), which has further consolidated the city's Tourism & Heritage Quarter.

Key attractions in the Tourism & Heritage Quarter include the Theatre Royal, Waterford Museum of Treasures (containing 7 different museums and attractions), the King of the Vikings virtual reality experience, Christ Church Cathedral and the preserved remains of French Church. Outside this are there are a range of commercial and cultural leisure facilities. There are two cinemas in the City Centre, an Omniplex Cinema on Patrick Street in the Retail Core Area and an Odeon Cinema in Railway Square shopping centre. Garter Lane Arts Centre on Meetinghouse Lane to the rear of O'Connell St runs a diverse year-round calendar of theatre, film and music performances. The Waterford Whiskey Distillery, located at the Western end of the Quays on Grattan Quay, offer tours and regular events. The City Centre provides a good variety and quality of visitor accommodation which generate footfall in the city and support the evening economy. Visitor accommodation is focused on the Mall and the Quays and its connecting streets – the main 4* and 3* hotels in the City include Treacy's Hotel, The Tower Hotel, The Granville, Dooleys Hotel, Waterford Marina Hotel and Fitzwilton Hotel.

Figure 41: French Church (left) and Waterford Museum of Treasures (right) (Image source: KPMG Future Analytics)

The City Centre provides a good range of food and beverage outlets including restaurants, pubs, bars and cafes spread across the centre with a particular concentration in the Tourism & Heritage Quarter and the Apple Market and John Street. There are a number of international/national multiple food and beverage outlets in the centre (including Starbucks, Café Nero, McDonalds, Supermac's, Gino's Gelato). The majority of units in the city are operated by independent business. The food and beverage offer has recently been bolstered by the opening of the Stable Yard Food Hall which provides contains

five artisan food destinations including restaurants, cafes and bakeries. The Stable Yard Food Hall represents a successful example of adaptive re-use of the vacant/underoccupied retail space in the City Centre. The Food Hall is located in part of the Georges Court shopping centre which now contains a mix of food and beverage and retail uses.

Figure 42: Stable Yard Food Hall (left) and John Street (right) (Image source: KPMG Future Analytics)

5.2.2.3 Office and Employment Floorspace

Office space in the City Centre, particularly in the Retail Core Area is mainly comprised of small offices on the upper floors of mixed-use commercial buildings catering for small and medium sized businesses. Additionally, there are a number of coworking spaces including BoxWorks on Patrick St and BoxWorks2 on John's Lane. Planning consent has recently been secured for the development of a technological urban lab 'smartSE' on Hannover Quay opposite the SETU Waterford School of Architecture. smartSE will provide a mix of exhibition, workshop and office spaces for organisations to develop innovative and sustainable smart city concepts through the application of analytics and technology. The smartSE lab has the potential to act as a catalyst for the development of technology focused business in the City Centre.

The North Quays SDZ has received planning permission for approx. 14,000sqm sqm office floorspace which will significantly improve the cities office stock by providing flexible modern 4th generation office space over large floorplates. There is a clear opportunity for new office development here to enhance the vitality and viability of the City Centre. Offices increase footfall and generate additional daytime trade for shops and evening trade for restaurants and bars. The new River Suir Sustainable Transport Bridge and transport hub (currently under construction) including relocated train station including proposed shuttle bus service will facilitate improved connections between the north and south quays. The development is expected to complete in 2025. To ensure the balanced development of the City Centre it will be necessary to attract additional higher order retail uses and further improve the food and beverage / leisure offer in the historic Retail Core Area south of the river.

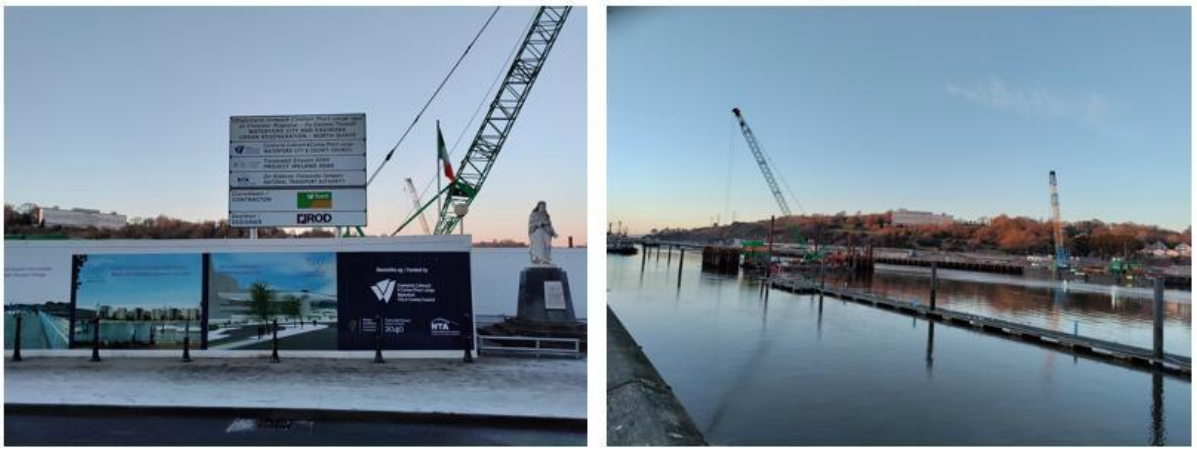


Figure 43: Construction of the *North Quays SDZ Sustainable Transport Bridge* (Image source: KPMG Future Analytics)

5.2.2.4 Institutional and Civic Uses

The presence of the South East Technological University (SETU) in the city serves as a major attractor to the City Centre across the Region and the State. SETU operates five campuses in Waterford including two in the City at Hanover Street and College St/Cork Rd. SETU is a major employer and the student population generates spending in the city and provides an important component of the local workforce. The City Centre contains a variety of civic offices such as Southern Regional Assembly offices (O'Connell St), WCCC offices (the Mall), OPW Regional Offices and Waterford Court House (Catherine Street). Such civic buildings act as key attractors and employers in the city and provide important services to the wider catchment area.

5.2.2.5 Community and Service Uses

The City Centre contains a variety of educational, healthcare and community facilities which serve the local catchment area including primary and post-primary schools, nurseries, doctors, dentists, post offices and WCCC library. The City Centre contains a variety of civic offices such as Southern Regional Assembly offices (O'Connell St), WCCC offices (the Mall), OPW Regional Offices and Waterford Court House (Catherine Street). Such civic buildings act as key attractors and employers in the city and provide important services to the wider catchment area. A number of financial institutions and service providers are also represented in the City Centre.

5.2.3 Competitiveness and Retailer Representation

The City Centre provides access to a range of convenience and comparison retail goods however the diversity and quality of the retail offer is not considered to be consistent with its Regional City designation.

Representation from department and variety stores in the Retail Core Area is limited to Dunnes and Shaws department store since the closure of Debenhams in 2020. The City Centre offer is enhanced by a TK Maxx variety store on Poleberry Road but this is store is not well connected to the Retail Core Area. The City Centre is underrepresented in department and variety stores compared to other Regional Cities (Cork and Limerick).

There is representation from multiple fashion and footwear retailers in the Retail Core Area including Tommy Hilfiger, River Island, Dunnes, Penney's, Foot Locker, Sketchers, Lifestyle Sports, Mountain Warehouse, Tresspass, JD Sports. A wider range of fashion retail brands are represented with concessions in Shaw's department store. The main multiple fashion offer is focused on sportswear and outdoor wear. The multiple fashion offer is complemented quality independent retailers such as

Fitzgerald Menswear and its sister stores - Heroes, Fitz U, Evolution, Kelly's and TRM which stock a range of premium men's and women's fashion brands. Again, it is considered that the City Centre is underrepresented in multiple fashion and footwear retailers compared to other Regional Cities (Cork and Limerick).

The City Centre is well represented by multiple and quality independent retailers in some specialist retail categories including homewares, gifts, books, toys, arts/crafts, jewellery, sports/outdoors shops and cycles which are supported by tourist spending. Multiple retailers in the city in include Dunnes, Claire's, Pandora, Dubray books, Carraig Donn, Mountain Warehouse, Tresspass and Lifestyle Sports. Retailer representation is very limited in some specialist retail categories including DIY, gardening, furniture, carpets and textiles which typically trade from larger retail warehouse units. However, these retailers are generally well represented throughout the Study Area in District Centres and retail parks.

The convenience shopping offer in the Retail Core Area is anchored by Dunnes Stores and complimented by a wide variety of independent specialist food stores located mainly on Patrick Street, Michael Street and on O'Connell Street and connecting side streets. The wider City Centre area has greater representation from convenience retailers. Four out of the five the main Irish multiple grocery retailers are present in the City Centre including Tesco on Poleberry Link Road, Aldi on the Glen, SuperValu on Morgan St and Dunnes in City Square shopping centre. To support city centre living initiatives and sustainable travel objectives, there is potential to improve the convenience shopping offer in and around the Retail Core Area by introducing further small to medium sized multiple convenience stores suitable for basket shopping trips such as Aldi opening in the City Square Shopping Centre. Such facilities could be delivered on mixed use City Centre opportunity sites and would complement new residential development.

Overall, it is considered that the comparison retail offer in the City Centre is not consistent with its role as a Regional City. Notably, multiple retailers, fashion retailers and department/variety stores are underrepresented in the City Centre compared to other Regional Cities (Cork) and other District Centres in the Metropolitan Area (Ardkeen). There is a requirement for the City Centre to attract a wider range of multiple fashion and department/variety stores in order to fulfil its role as a regional retail destination.

5.2.4 Commercial Vacancy Levels

Figure 45 presents the overall commercial vacancy date for Waterford Retail Core Area for Q1 2024. The distribution of vacancies throughout the centre and change in vacancies over time is assessed below.

There is a notable concentration of vacancies within the Retail Core Area on Michael Street, John Street and Arundel Square which were identified in the 2020 WCCC Retail Strategy. Since 2020 there has been an increase of vacant units on primary retail streets – including former Clarks and Argos units on Broad St. There are a number of prominent long-term vacant units on primary retail streets – including former Debenhams City Square Shopping Centre anchor unit, 2no. new City Square units constructed c. 2020 and former Clarks and Argos units. However, the concentration of vacant units in Georges Court shopping centre has been successfully reduced since 2020 through the adaptive re-use of the centre as a new food hall destination (Stable Yard Food Hall).

Outside the Retail Core Area there is a noticeable concentration of vacant units on O'Connell Street. However, it is noted that WCCC has acquired a significant number of units on the street and has secured permission for the mixed-use development of two sites on O'Connell Street (nos. 70-71) and the adjoining Munster Express building (Ref. 1322269 & 1298150) which will improve the appearance of the Street.

There is also a noticeable concentration of vacant retail units and office space in the Railway Square shopping centre. Planning permission was granted in 2022 for the change of use of two ground floor retail units to create a 1,751 sqm ground floor office unit which will bring this floorspace back into active use (Pl Ref. 20236). Long-term vacant office space in Railway Square may be suitable for office to residential conversion. A significant number of apartment units could potentially be provided on this site which would contribute towards meeting Waterford City's population targets in a sustainable manner. Future planning application proposals for adaptive change of use should include improvements to the building facades. WCCC has recently competed a new pocket park at Railway Square/Manor Street which provides a much-improved setting for the centre.

Figure 44: Vacant units in the Railway Square shopping centre and vacant former Argos Unit on George's St (Image source: KPMG Future Analytics)

Figure 45 below presents commercial vacancy date for Waterford City and competing centres including Limerick and Cork City. It should be noted here that this data includes all commercial uses (not only retail) and covers the wider city centre area (not only the Retail Core Area). In terms of overall commercial vacancy, Waterford City performs well compared to Limerick (19.4%) but the vacancy rate in Waterford City (17.9%) is significantly higher than Cork City (13.3%) and Kilkenny City (14.5%).

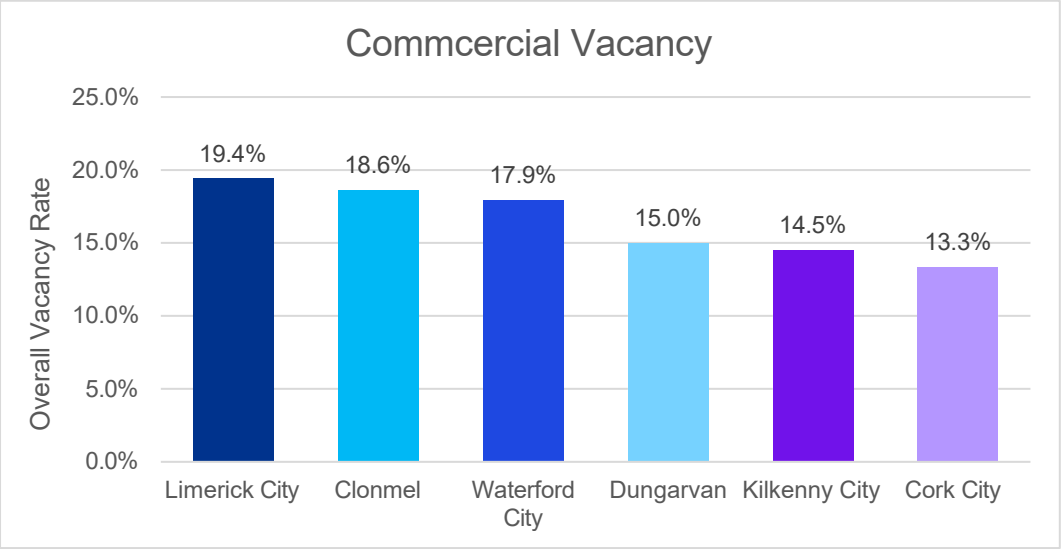


Figure 45: Commercial Vacancy Levels for Waterford City and competing centres Q3 2023 (Source: GeoDirectory, 2024)

GeoDirectory data shows that the commercial vacancy date for Waterford City increased slightly between Q2 2022 and Q2 2023 from 17.6% to 17.9%. The vacancy rate in Limerick, Kilkenny and Dungarvan also increased slightly over this period while the vacancy rate decreased slightly in Cork and Clonmel. However, the vacancy rate in all centres remained relatively stable; the greatest change observed was in Dungarvan from 13.8% to 15.0%, an increase of just 1.2%[32].

5.2.5 Accessibility

Accessibility of the City Centre is evaluated separately in Chapter 6 on Sustainable Travel Routes.

5.2.6 Environmental Quality and Public Realm

The City Centre's historic buildings and fine urban grain provide an attractive setting throughout most of the centre and most buildings within the Retail Core Area are well maintained. However, there are instances of derelict units and sites within and adjoining the Retail Core Area which require further investment. The public realm is well maintained, and during the site visits most streets appeared clean throughout the pedestrianised core area.

Much of Retail Core Area, Tourism & Heritage Quarter area and the Evening & Night-time Quarter area have all benefitted from public realm improvement works within the last 15 years including pedestrianisation and traffic calming measures and installation high-quality street paving, street furniture, lighting and planting. The public realm has been enhanced by the installation of attractive directional signage in recent years which helps to unify the different quarters of the city and assists visitors in way finding.

[32] GeoDirectory Commercial Building Reports Q2 2023 (2023) GeoDirectory

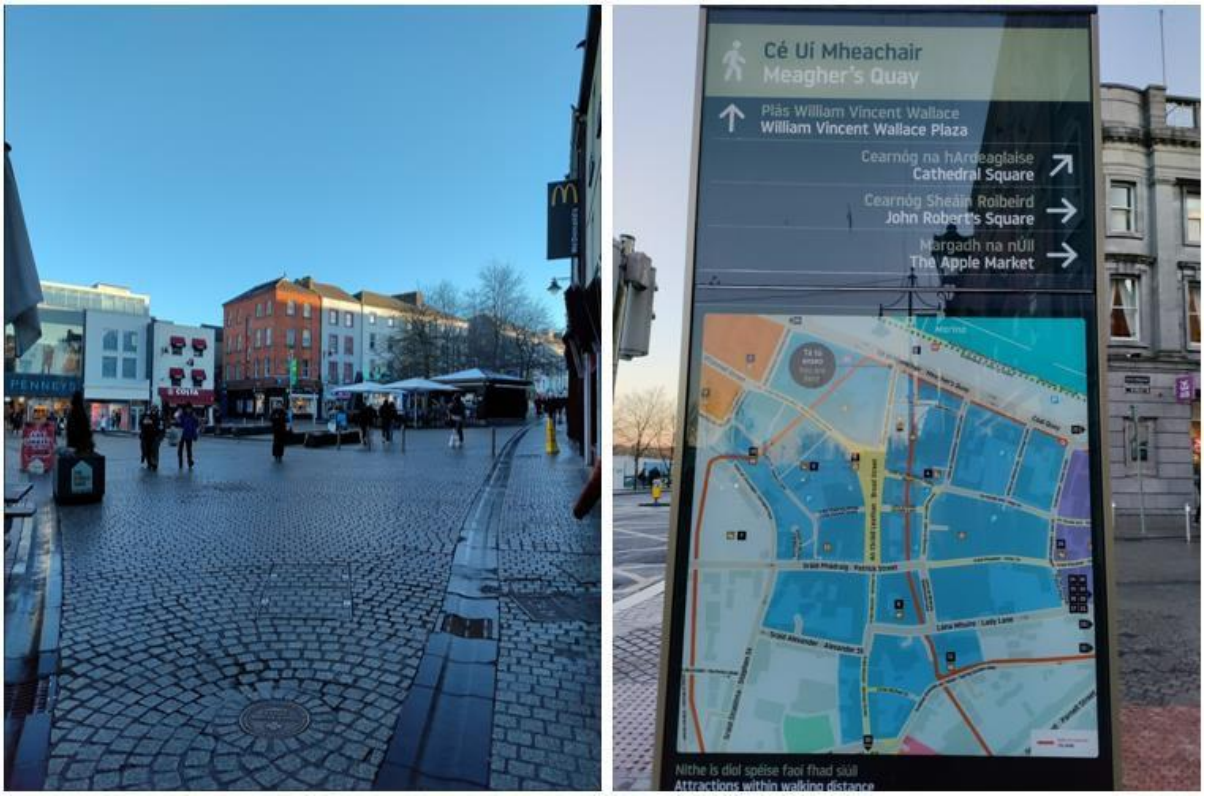


Figure 46: John Roberts Square with attractive paving, seating and planting (left) and signage on Meagher's Quay (right) (Image source: KPMG Future Analytics)

The quality of the public realm along primary retail streets in the Retail Core Area (including Arundel Square, Barronstrand Street, John Roberts Square and George's Street) is generally very good with high quality street paving, street furniture, lighting and planting. The majority of shopfronts are well maintained however there are some vacant and derelict shopfronts in need of renovation which detract somewhat from the public realm and some long-term vacant units as noted in Section 6.2.4 above. John Roberts Square is a major focal point in the city and is well utilised as an informal gathering point and as an outdoor venue for events and activities such as food markets, festivals and street entertainment.

Similarly, the Heritage Quarter area (Bailey's New Street, Constitution Square, Cathedral Square, and Charles Bačik Plaza) provides an attractive environment with high quality landmark buildings in a wide range of architectural styles including historic structures (such as Christ Church Cathedral, Bishop's Place, French Church ruins) and modern buildings (such as the Medieval Museum and House of Waterford). The area has also benefited from more recent public realm improvement works including high-quality street paving, furniture and lighting and additional soft landscaping around the Bishop's Palace.

However, there is potential to improve pedestrian connectivity between the Heritage Quarter area and the Retail Core Area to increase footfall traffic within and enhance the vitality and viability of the Retail Core Area. Many of the connecting streets such as High St, Peter St and Lady Lane are not visually attractive with long blank facades created by vacant units or inactive ground floor uses. Pedestrian connectively along Peter St / Peter St Mall is limited to the daytime opening hours of the City Square shopping centre. Due to lack of active ground floor frontages and natural surveillance the alternative routes along High St and Lady Lane are not perceived to be safe for pedestrians during evening hours.

Figure 47: Lady Lane (left) and Pater St (right) connecting the Retail Core Area and the Heritage Quarter area (Image source: KPMG Future Analytics)

Further improvements are required to these streets to improve connectively between these two important areas of the city. In the short-term design measures to improve physical and visual connectively could be implemented along Peter St and Lady Lane including unified street paving, improved street lighting, prioritisation of pedestrian flows, more prominent directional signage towards the Retail Core Area and adaptive re-use of vacant units. In the longer term any future planning application for comprehensive redevelopment of City Square Shopping Centre should introduce active ground floor frontages on Lady Lane and reinstate public access along the full length of Peter Street.

Johns Square and the Apple Market have also benefited from recent public realm improvements works and most recently from new traffic calming measures. Much of the Retail Core Area, Tourism & Heritage Quarter area and the Evening & Night-time Quarter area have been pedestrianised providing a safe and pleasant shopping environment for visitors. A reduced speed zone (20 km/h) has been introduced on Johns Square to improve safety and encourage more pedestrian activity at street level including outdoor dining. The introduction of a wider reduced speed zone should be considered by WCCC on roads within the inner ring road to improve pedestrian safety and connectivity.

Figure 48: Apple Market (left) and Johns Square (right) (Image source: KPMG Future Analytics)

Buildings along the quays are generally well maintained with low vacancy levels however the quality of the environment is undermined by the presence of heavy traffic along the R680. Access to the river is also restricted for pedestrians by traffic and east to west pedestrian movement along the quays is interrupted by numerous vehicle entrances to car parks/the bus station. The William Vincent Wallace Plaza is the only part of the Quays which feel safe and easily accessible to pedestrians currently.

While there are many attractive public squares and streets there are few publicly accessible green spaces within the City Centre. The grounds of Bishop's Palace on the Mall and the new Railway Square Pocket Garden are examples how small green spaces can greatly improve the quality of the local environment. In 2023 WCCC was awarded funds under the Government's Community Recognition Fund to develop a pocket park at Thomas St. Additional opportunities for urban greening should be pursued by WCCC as part of city centre regeneration / infill development site proposals, including most notably the South Quays including new green infrastructure.

The City Centre contains several vacant and underutilised infill Opportunity Sites within the Retail Core Area and on connecting streets in the City Centre which detract from the quality of the public realm. **Appendix 5** identifies the City Centre Opportunity Sites which include Sites in Local Authority ownership and WCC CDP as Regeneration Sites.

Within the Retail Core Area, the largest and most prominent Opportunity Site is the former WCCC New Street car park to the rear of Michael Street (ID 2.00: Michael Street Shopping Centre) and the adjacent former Waterford Institute of Technology site on Brown's Lane/John's Lane (ID: 1.00). Planning permission has been granted on two previous occasions for the mixed-use redevelopment of the site including significant new retail floorspace (c. 20,000sq.m.) in 2007 and 2016 however development has not come forward to date (Pl Ref. 06500526 & 16175).

Figure 49: Railway Square Pocket Garden Market (left) and Bishop's Palace on the Mall (right) (Image source: WCCC and Google Street View)

The Waterford Development Plan identifies the Michael Street Site as being suitable for new mixed use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living. The WCC CDP identifies large vacant/derelict infill opportunity sites at Thomas Hill and at Jenkins Lane/Little Patrick St as Regeneration Sites which are both identified as being suitable for new mixed use high-density development with an emphasis on employment, retail, apartments and residential city living. Opportunity Sites are discussed further in Section 8 of this Report.

5.2.7 Perception of safety and occurrence of crime

The perceived occurrence of crime throughout the Retail Core Area is considered to be low with limited evidence of anti-social behaviour such as graffiti/vandalism throughout the centre. Perception of safety could be improved by reducing vacancies on main shopping streets and securing the redevelopment of derelict infill development sites to provide passive surveillance of public streets. Public streets within the Retail Core Area, Tourism & Heritage Quarter area and the Evening & Night-time Quarter area appeared well lit during daytime and evening hours. Safety in the city centre could be improved for pedestrians and cyclists through the implementation of further low speed zones, further traffic calming measures and improvements to city-wide segregated cycle lanes.

5.2.8 Retail rents and yields

Retail rents provide a proxy for the level of investor and operator demand for retail space. Figure 50 below compares average asking retail rents in Waterford City and competing centres (Limerick, Cork, Kilkenny, Clonmel). The data was collected by KPMG in January 2024 from commercial listings advertised on DAFT.ie and other agent websites.

The Figure identifies average rents for primary retail streets and retail centres, secondary retail streets and retail centres and an overall average rent for all locations within the centre. As anticipated, average rents in Cork are higher than any other city in the Munster Region. It is notable that average rents in Waterford (€28.05) are more comparable to those of Kilkenny (€28.25) than Cork (€32.91). However, Waterford and Kilkenny both perform better than Limerick City (€24.71). It is also notable that the variation between average Primary and Secondary retail rents in Waterford is far greater than in Cork.

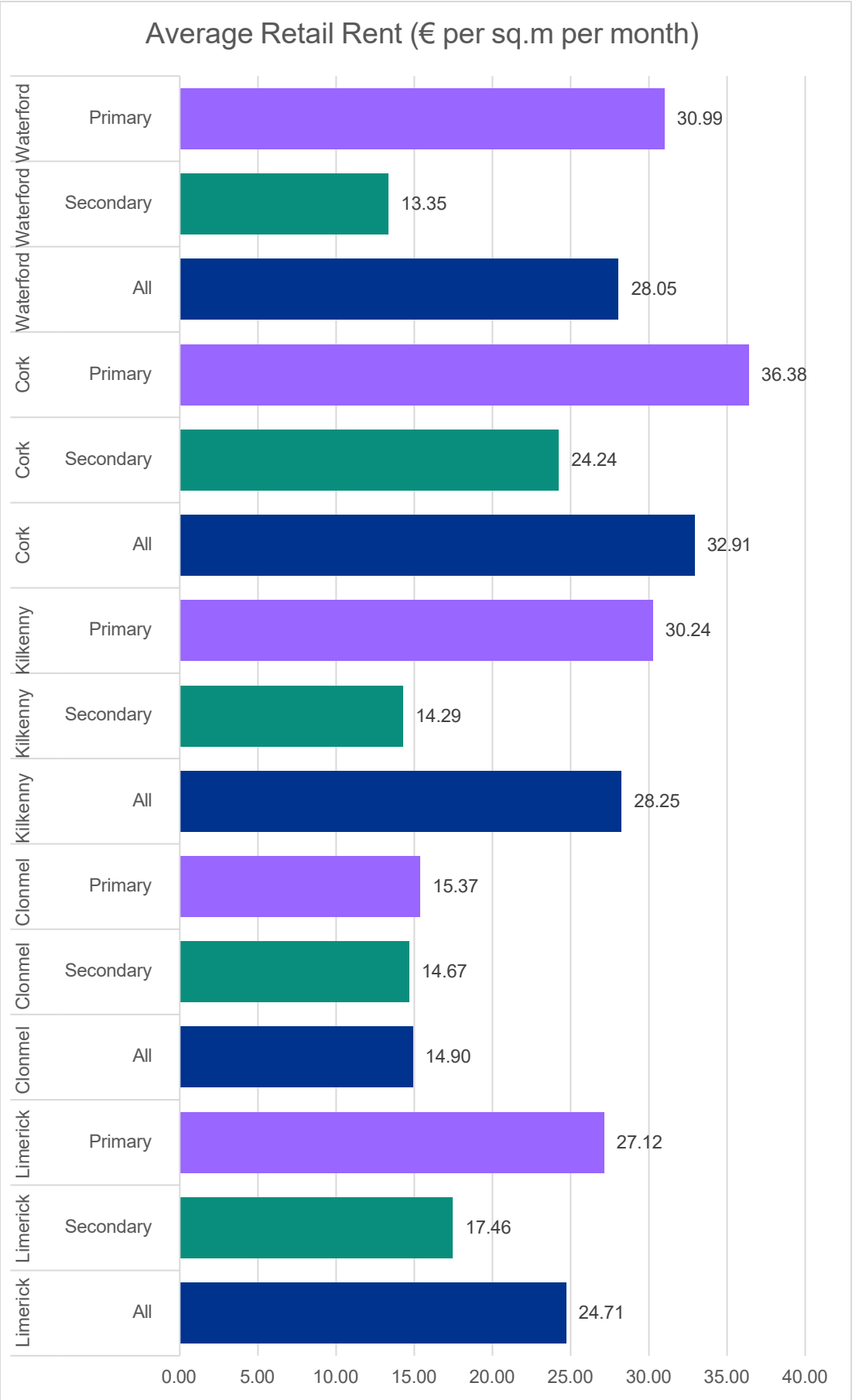


Figure 50: Average Asking Retail Rents Waterford and Competing Centres Q12024 (source: DAFT, various)

5.2.9 Customer views and behaviour

Customer views of Waterford City Centre and shopping behaviours recorded in the online retail survey completed in Q4 2023 are summarised below (see Section 5 Stakeholder Engagement for further details):

- The majority of survey respondents consider Waterford to have a poor retail environment with the main deficiencies cited as a lack of large brands, poor quality retail units and poor accessibility;
- The majority of survey respondents consider there is a good selection of places to eat and drink;
- Survey respondents identified a lack of entertainment / leisure options in Waterford;
- Kilkenny, Dublin, Cork and Kildare Village are the most popular alternative shopping destinations, and primary reasons for shopping in locations outside of Waterford is the presence of multi-national large brands and retailers in those locations;
- Clothing, footwear, jewellery, art, books, music, homeware, furniture and bulky goods are the most important types of products shopped online;
- Survey respondents would increase their in-person shopping frequency/spend in Waterford if there was greater choice and variety of fashion retailers, improved accessibility, and livelier atmosphere/better appearance;
- The vast majority of respondents visiting shopping areas in Waterford use private car or walk. Reported use of public transport, bicycle, or other active modes of transport is low.

5.2.1 Conclusion and Recommendations

A summary of the Waterford City Centre retail health check is presented in the Table *14*below which summarises the key strengths, constraints, opportunities, and threats. Key recommendations to enhance the vitality and viability of the City Centre arising from the health check assessment are set out in the Table below.

Table 13 Waterford City Centre Recommendations

	Recommendations
1	Consolidate comparison retailing activity in the Retail Core Area.
2	Improve the diversity of the City Centre's retail offer by attracting a greater range of higher order National retailers, specifically fashion, footwear, and department store retailers to reduce expenditure leakage to competing destinations.
3	Improve the diversity of the City Centre's retail offer by attracting a greater range of high quality independent and boutique retailers to develop Waterford's unique retail offer.
4	Reduce vacancy levels across the Retail Core Area, particularly along key shopping streets and the Quays, to enhance the vitality of the city and overall public realm quality.
5	Develop a public realm strategy setting out a practical approach to create a unified high-quality public realm throughout the City Centre building upon recent public realm improvements.
6	Develop a coherent wayfinding strategy that links the Evening/Night-time quarter to the south with the Quays, the Cultural Quarter and the Tourism/Heritage Quarter to the north via the central Retail Core Area to help drive increased retail footfall through the main retail streets
7	Develop a night-time wayfinding strategy that provide safe and attractive connections between the main evening economy areas and attractions such as Evening/Night-time quarter, Waterford Theatre, Cinema, Arts Centre and hotels focused along the Quays.
8	Provide enhanced access to public open space in the City Centre to provide opportunities active and passive recreation for all age groups and enhance the visitor experience.

	Recommendations
9	Improve access to the city centre by all modes of transport and reduce through traffic in the city centre to enhance the attractiveness of Waterford to residents, visitors and business.
10	Provide safe and secure car parking facilities that are competitively priced in convenient locations on the edge of the city centre with attractive pedestrian links to the centre.

Table 14 SCOT analysis of Waterford City Centre

	Attractions	Accessibility	Amenity	Action
Strengths	Diverse tourism and cultural offer focused on the Tourism & Heritage Quarter. Diverse food and drink offer including high-quality restaurants, bars and hotels. SETU is a major employer, and the student population generates spending in the city and provides an important component of the local workforce. Good mix of quality independent comparison and convenience stores which differentiates the city from competing centres.	Most of the Retail Core Area and adjoining Tourism & Heritage Quarter is pedestrianised and/or benefits from traffic calming measures. There is good choice of car parking throughout the City Centre within walking distance of the Retail Core Area including on-street parking, surface level parking and multi storey car parks.	Attractive historic City Centre with a distinctive character and high-quality public realm throughout most of the pedestrianised core area. The public realm is well maintained, and most streets appear clean throughout the pedestrianised core area. Sustained ongoing investment in public realm improvement works.	WCCC is taking a proactive approach to address vacancy and dereliction in the City Centre WCCC has successfully secured external funding through multiple streams to enhance the City Centre (incl. North Quays SDZ, Viking Triangle, Cultural Quarter, Parade Quay/Friary Square and pocket parks). WCCC has acquired a significant portfolio of sites in the City Centre and secured planning permission for the refurbishment and adaptive use of vacant/underutilised sites. WCCC has acquired several properties in the Cultural Quarter and has obtained/is obtaining consent for multiple developments including the smartSE hub.
Constraints	Historic urban core resulting in a lack of large floorplate retail units. Housing shortage (including conventional and student accommodation).	Poor pedestrian connectivity between the Retail Core Area and the Tourism & Heritage Quarter (physical and visual). Heavy traffic flows and congestion along inner-city roads act as a	Few green spaces within and adjoining core pedestrianised City Centre area. The South Quays river frontage is not fully exploited from an urban design or recreational perspective.	The City Centre has struggled to attract new high order fashion retailers despite investment in the public realm, new retail floor space (City Square) and improvements to the visitor offer (tourism, leisure, food and beverage).

	Higher order National comparison retailers (notably fashion and department stores) are underrepresented in the City Centre compared to other Regional Cities (Cork).	deterrent to pedestrian and cycle access and prevent the efficient operation of bus services. Cycle lanes along primary cycle routes into and within the City are fragmented. Congestion along inner-city roads detracts from the quality environment – both in terms of the visitor experience and air quality.	Pedestrian and cycle access to the Quays is constrained by heavy traffic flows.	There is a requirement for the City Centre to attract a wider range of higher order National retailers to fulfil its role as a regional retail destination. Number of prominent and long-term vacancies in the Retail Core Area (Arundel Square/ City Square Shopping Centre/ George's St). The redevelopment of the Michael Street and former WIT Sites has not been realised although permission has been granted for large scale mixed-use redevelopment since 2007.
Opportunities	Promote development of modern retail units with larger floorplates to attract higher order multiple retailers and reduce comparison expenditure leakage. Promote development of larger retail units in the Retail Core Area North and South of the River (North Quays SDZ and the traditional retail core) to ensure balanced development of the City Centre.	Increase footfall in the Retail Core Area by improving pedestrian connectivity between the Retail Core Area and the Tourism & Heritage Quarter (along Lady Lane and Peter St). To enhance pedestrian accessibility and safety designate the Inner Ring Road area (2.7 km²) within the City Centre as a reduced speed zone (30 km/h).	Progress preparation of the South Quays Design Framework to define sustainable travel routes, recreation, amenity and biodiversity spaces.	WCCC owns the largest and most prominent Opportunity Site in the Retail Core Area (Michael St Site) which has potential to provide modern large floorplate retail unit(s) adjoining the Retail Core Area as part of mixed-use development. Short-term measures to improve pedestrian connectivity between the Retail Core Area and the Tourism & Heritage Quarter

	Provide additional small to medium convenience stores in and adjacent to the Core Retail to support sustainable travel and city living objectives. Further expand provision of quality food and beverage outlets to complement retail and tourism offer. Promote over the shop living in the Retail Core Area to increase footfall, support the evening economy and improve perceptions of safety. Promote consolidation of the Retail Core Area by encouraging adaptive re-use of retail units in secondary locations for a mix of uses (residential, student accommodation, employment and tourism) which support footfall and consumer spending in the City.	To support sustainable travel objectives and city centre living, improve the range of convenience shopping facilities in and adjacent to the Retail Core Area.		connectivity on Lady Lane and Peter St include provision of unified street paving, improved street lighting, prioritisation of pedestrian flows and more prominent directional signage. Longer-term measures to improve pedestrian connectivity between the Retail Core Area and the Tourism & Heritage Quarter include introducing a Development Plan policy objective that any future development proposal for comprehensive redevelopment of City Square Shopping Centre should introduce active ground floor uses on Lady Lane and reinstate public access along the full length of Peter Street with improved visual connectivity through the site. In the longer term any future planning application for comprehensive redevelopment of City Square Shopping Centre should introduce active ground floor frontages on Lady Lane and reinstate 24 hr public access along Peter Street with improved visual connectivity through the site.

				Encourage provision of local convenience stores as part of mixed-use development on larger City Centre Opportunity Sites to meet local retail needs.
Threats	Competition for investment and consumer spending from centres with enhanced range of high-order fashion multiple retailers (Kilkenny, Dublin, Cork, Kildare Village). Potential competition for investment and consumer spending from the North Quays SDZ. Current uncertainty around the size and type of retail units to be provided in the North Quays SDZ (retail floorspace is flexible). Competition from District Centres in the Metropolitan Area with fashion and specialist multiple retailers.			

5.3 Ardkeen

5.3.1 Introduction

Figure 51: Ardkeen District Centre Aerial (Source: KPMG Future Analytics, based on Google Maps)

Ardkeen is located approximately 2.5 km east of Waterford city centre and forms the largest contiguous settlement extension in the eastern stretches of the city. Ardkeen largely aligns with the EDs of Ballymaclode, Ballynakill, Farranshoneen, Grange South and Grange Upper which have a combined population of 15,292 persons, representing approximately 23% of the metropolitan population. Ardkeen has an extensive retail space, parts of which are classified as Tier 2 (L2) (District centre) within the Waterford Metropolitan Area. It is comprised of two main locations:

- Ardkeen Shopping Centre, located between Dunmore Road and Outer Ring Road, opposite of Waterford University Hospital (Ardkeen District centre);
- Ardkeen Retail Park, located between Ardkeen Village and Outer Ring Road, and The Broadcast Centre Road/ Farronshoneen Park (not part of the Ardkeen District centre)

Ardkeen Retail Park and The Broadcast Centre form a contiguous area separated by a public road (Esker Drive). Both areas are geographically separated by a residential area from Ardkeen Shopping Centre. In addition, there is a retail concentration adjacent to Ardkeen Shopping Centre, north of Dunmore Road (around The Cove Centre) which is classified as part of the district centre. Ardkeen is the location of the Waterford University Hospital, one of the largest employers in Co. Waterford. The hospital along with several other medical services, is situated directly opposite to Ardkeen Shopping Centre.

Figure 52: Ardkeen District Centre: multi-unit retail unit at Ardkeen Shopping Centre (Source: KPMG Future Analytics)

Figure 53: Ardkeen District Centre: individual retail units at Ardkeen Shopping Centre (Source: KPMG Future Analytics)

5.3.2 Diversity of Uses

Ardkeen District Centre has a total of 13 businesses classified as bulky, comparison, convenience shopping, as well as petrol stations. The majority fall into the category of comparison shopping (primarily supermarkets).

Table 15 Diversity of retail uses

Use	No. Units	% of units
Bulky	0	0%
Comparison	6	46%
Convenience	7	54%
Petrol stations	0	0%
Total	13	100%

Table 16 Commercial vacancy levels

Use	No. Units	% of units
Vacant	2	5%
Total	44	100%

5.3.3 Retailer representation and Competitiveness

Ardkeen District Centre is characterised by a diversified retail infrastructure that includes, e.g., grocery retailers, liquor stores, pharmacies. Additionally, the district centre as well as Dunmore Road/ Cove Centre/ Glenville Centre fulfil social and cultural functions to the wider Ardkeen residential neighbourhoods in the shape of clinics, cafés and restaurants, banks and insurance brokers, and other services (total of 31 businesses and services). The retail areas thus fulfil the requirements of a district centre as 'serving the social, cultural and retailing needs of [its] local catchment' (Retail Planning Guidelines, p.12). However, the presence of a major clothing store as well as the density and variety of grocery retailers suggests that Ardkeen District Centre contradicts the guideline to 'not be promoted to a scale of development such that they begin to act as retailing destinations in their own right or where this would undermine the vitality of the central area of the city or town in the environs of which the district centre is located' (Retail Planning Guidelines, p.12). This problematic situation was created by the Ardkeen Retail Park/ The Broadcast Centre area.

5.3.4 Commercial vacancy levels

Retail spaces in Ardkeen District Centre are characterised by high occupancy. In total, two store spaces have been identified as vacant, representing 5% of existing stores. There is currently no structural problem with regard to vacancies in Ardkeen District Centre.

5.3.5 Accessibility

Accessibility of the district centre is evaluated in Chapter 6 Sustainable Travel Routes in this Report.

5.3.6 Environmental Quality and Public Realm

Ardkeen Shopping Centre is characterised by large impervious surface areas without any significant greenery. The Broadcast Centre is adjacent to a greenery area (Farronshoneen Park). With the exception of Ardkeen Shopping Centre (main building), no roof structures are currently used for energy generation (photovoltaic).

As Ardkeen Shopping Centre is a purpose-built retail area designed around the primacy of motorised vehicles (i.e., a maximum utilisation of space for car access and parking), the consideration given to pedestrians and cyclists is limited. The main thoroughfare in Ardkeen Shopping Centre that leads from Dunmore Road/ Maypark Lane roundabout to Aldi (150m) lacks a pedestrian crossing, speed restrictions and speed breakers that would facilitate safe crossing. Hence, a divide persists between the western and eastern parts of that retail area.

5.3.7 Perception of safety and occurrence of crime

Ardkeen District centre is perceived as an area with high safety levels and a low crime occurrence. This perception is fostered by the presence of the high number of retail facilities that are opened six or seven days a week, and by consistent footfall during retail opening hours. Surveillance cameras, comprehensive street lighting, and an absence of graffiti and other traces of vandalism contribute to a general feeling of safety. Safety concerns exist with regard to access particularly for cyclists and pedestrians.

5.3.8 Shopping rents and commercial yields

A desktop review of retail rents was undertaken in January 2024 for all centres in the Study Area. However, there was insufficient data available to calculate a comparable average retail rent for Ardkeen for 2024.

5.3.9 Customer views and behaviour

The retail survey results identified that 34% visit Ardkeen Shopping Centre. The results indicate that Ardkeen is the third most popular shopping destination after the city centre and Ardkeen Retail Park This confirms Ardkeen as an important shopping destination within the Waterford Metropolitan Area. Customers point to the diversity of shopping options in Ardkeen. Negative responses were expressed with regard to internal and external connectivity, as public transport to Ardkeen is considered insufficient and transport infrastructure within and between the estates encourages car usage while discouraging walking.

5.3.10 Conclusion and Recommendations

Ardkeen District Centre features a comprehensive and diverse offer of retail facilities, as well as ancillary nonretail facilities, partly exceeding the requirements for a district centre. No recommendations are made to enhance the retail infrastructure.

Action is required with regard to accessibility and environmental quality. Improvements to the currently car-centric design of Ardkeen District centre could increase footfall (pedestrians) and improve the significance of the area as centre for the community (beyond retail). Transport-related recommendations that exceed the boundaries of the District Centre are included in Section 4.4.2 Sustainable Travel Routes: Ardkeen District Centre.

Table 17 Ardkeen District Centre – Recommendations

	Recommendation	Priority
1	Enhancing environmental quality of district centre by the planting of trees and shrubs within business estates	Medium Term
2	Provision of additional bicycle parking facilities with the District Centre	Medium Term

5.4 Kilbarry, Tramore Road, Inner Relief Road

5.4.1 Introduction

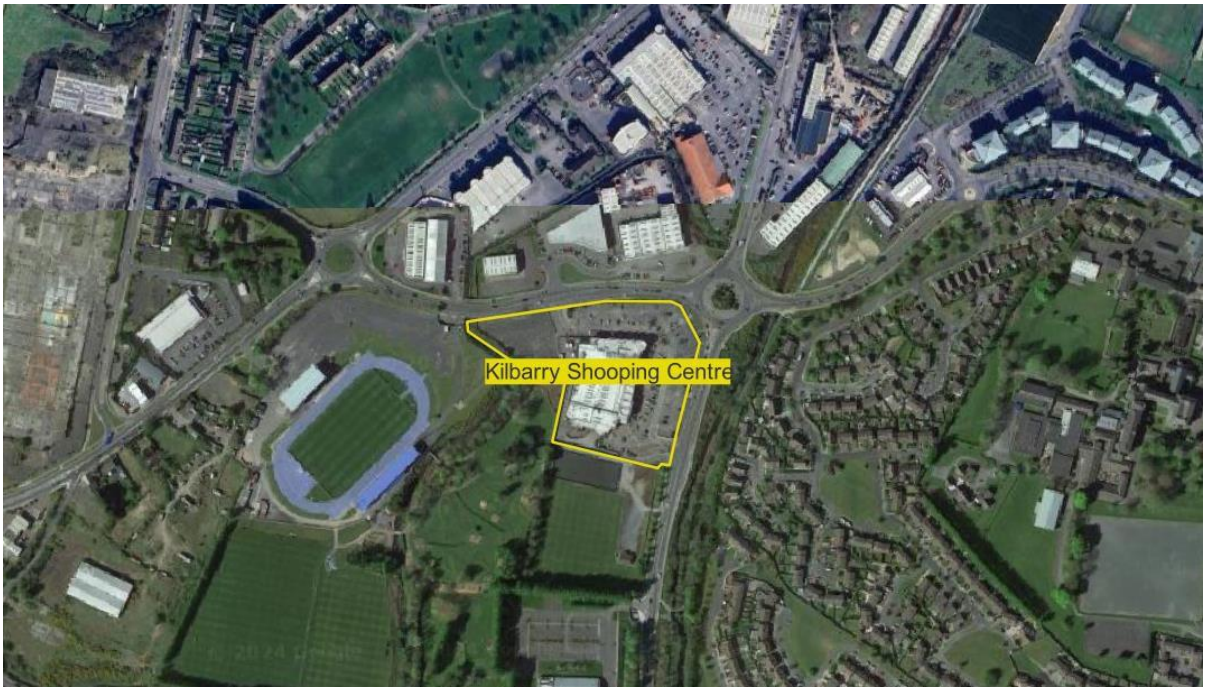


Figure 54: Kilbarry, Tramore Road, Inner Relief Road District Centre Aerial (Source: KPMG Future Analytics, based on Google Maps)

Kilbarry, Tramore Road, Inner Relief Road District Centre is located approximately 1.5 km south of Waterford city centre in between Lisduggan to the west, Manor to the north, Ballytruckle to the east. The District Centre forms one contiguous area stretching approximately 800m from north (Manor Street) via Cork Road and Tramore Road, to south (to Inner Ring Road). It comprises of Tramore Road Business Park, Kingsmeadow Retail Park, Ivory Retail Park, Kilbarry Shopping Centre, Westgate Retail Park, and a number of additional retail and ancillary uses along aforementioned roads.

The District Centre is largely located within the Kingsmeadow ED and partly within Kilbarry ED, and is surrounded by the EDs Mount Sion, Poleberry, Ballytruckle, Larchville, Roanmore. Kingsmeadow ED had a population of 1,305 according to the 2022 Census, Kilbarry ED had a population of 2,758 inhabitants. The residential areas of all surrounding EDs, including Kilbarry, are within close proximity of other Tier 2 (L2) or lower tier centres. At its southern end, it borders several recreational facilities, such as the Waterford Regional Sports Centre and Kingfisher Club Waterford.

Despite its size, Kilbarry, Tramore Road, Inner Relief Road does have the character of an integrated district centre. The various components were developed independently from each other and without a common planning strategy. Due to the wide range of retail offers and ancillary uses in the district centre, the area serves the surrounding EDs as well as the larger metropolitan area.

Figure 55: Kilbarry, Tramore Road, Inner Relief Road District Centre: Kingsmeadow Retail Park (left) and Kilbarry Shopping Centre (right) (Source: KPMG Future Analytics)

Figure 56: Kilbarry, Tramore Road, Inner Relief Road District Centre: Ivory Retail Park (Source: KPMG Future Analytics)

5.4.2 Diversity of Uses

Table 18 Diversity of retail uses in Kilbarry, Tramore Road, Inner Relief Road District Centre

Use	No. Units	% of units
Bulky	10	31%
Comparison	16	50%
Convenience	5	16%
Petrol stations	1	3%
Total	32	100%

Table 19 Commercial vacancy levels in Kilbarry, Tramore Road, Inner Relief Road District Centre

Use	No. Units	% of units
Vacant	2	3%
Total	72	100%

5.4.3 Retailer representation and Competitiveness

Kilbarry, Tramore Road, Inner Relief Road District Centre is characterised by a diversified retail infrastructure that includes primarily bulky and comparison goods store, such as home improvement/ DIY, furnishing and electronic stores. To a minor degree, there are convenience stores and smaller day-to-day comparison stores, such as pharmacies. There is one petrol station in the area. Additionally, the district centre and its adjacent areas to the south provide social and cultural functions to the adjacent residential neighbourhoods and the wider city in the shape of medical facilities, cafés and restaurants, sports leisure facilities, parks, and other services. Due to the high presence of larger stores focusing on the sale of bulky and larger comparison items, the Centre goes beyond the traditional role of a district centre which is to serve 'the social, cultural and retailing needs of [its] local catchment' (Retail Planning Guidelines, p.12) only to some extent. The catchment exceeds that of the immediate neighbourhoods, which have Tier 2 (L2) or tier 4 retail areas of their own.

5.4.4 Commercial vacancy levels

Retail spaces in Kilbarry, Tramore Road, Inner Relief Road District Centre are characterised by high occupancy. In total, two store spaces have been identified as vacant, representing 3% of existing stores. There is currently no structural problem with regard to vacancies in the District Centre.

5.4.5 Accessibility

Accessibility of the district centre is evaluated in Chapter 6 Sustainable Travel Routes in this Report

5.4.6 Environmental Quality and Public Realm

Kilbarry, Tramore Road, Inner Relief Road District Centre is situated in close proximity to a neighbourhood park and sports area to the west (across Cork Road) and John's River to the east. While park/ sports area is accessible through a pedestrian crossing via Cork Road, John's River is accessible from Tramore Road roundabout.

Due to the gradual development and the absence of a common planning strategy, the district centre is not integrated with the adjacent green spaces and does not have any spatial and design-related reference to them. All parts of the District Centre are only opened towards their respective access roads and are - with the exception of Woodie's and Lidl - closed off from each other by metal fences. A stream that is connected to John's River and traverses the District Centre forms a barrier between Kingsmeadow Business Centre and areas to the north and is generally not noticeable for visitors. All parts of the District Centre are characterised by spread-out tarmac surfaces, while no consistent walkway systems, greenery, and street furniture exist. The environmental and public realm conditions can thus be considered of low quality.

5.4.7 Perception of safety and occurrence of crime

Kilbarry, Tramore Road, Inner Relief Road is perceived as an area with high safety levels and a low crime occurrence. This perception is fostered by the presence of the high number of retail facilities that are opened six or seven days a week, and by consistent footfall during retail opening hours. Surveillance cameras, comprehensive street lighting, and an absence of graffiti and other traces of vandalism are contribute to general feeling of safety. Outside opening hours, some areas are closed by barriers. Safety concerns exist with regard to access particularly for cyclists and pedestrians.

5.4.8 Shopping rents and commercial yields

A desktop review of retail rents was undertaken in January 2024 for all centres in the Study Area. However, there was insufficient data available to calculate a comparable average retail rent for Kilbarry in 2024.

5.4.9 Customer views and behaviour

27% of respondents to the retail survey travel to Kilbarry, Tramore Road, Inner Relief Road, the fifth highest value after city centre, Ardkeen Retail Park, Ardkeen Shopping Centre, and Waterford Retail Park as a non-tier 1/2 destination. Negative responses for Kilbarry, Tramore Road, Inner Relief Road were expressed with regard to internal connectivity as transport infrastructure within and between the estates encourages car usage while discouraging walking.

5.4.10 Recommendations

Kilbarry, Tramore Road, Inner Relief Road District Centre features a comprehensive and diverse offer of retail facilities, and few ancillary facilities, meeting the criteria for a district centre. Hence, no recommendations are made to enhance the retail infrastructure.

Action is required to significantly improve accessibility and environmental quality. Transport-related recommendations that exceed the boundaries of the District Centre are included in Section 6.4.3 Sustainable Travel Routes: Kilbarry, Tramore Road, Inner Relief Road District Centre.

Table 20 Kilbarry, Tramore Road District Centre - Recommendations

	Recommendation	Priority
1	Conception of Masterplan to improve walkability and increase dwell-time within District Centre and integration with residential areas	Medium Term
2	Enhancing environmental quality of district centre by the planting of trees and shrubs within business estates	Long Term
3	Extension of footpaths and cycle paths within business estates	Medium Term
4	Provision of bicycle parking facilities the District Centre	Medium Term

5.5 Waterford Shopping Centre, Lisduggan

5.5.1 Introduction

Figure 57: Lisduggan District Centre Aerial (Source: KPMG Future Analytics, based on Google Maps)

Lisduggan is located approximately 2.5 km west of Waterford city centre and forms the largest contiguous settlement extension in the western stretches of the city. Lisduggan largely aligns with the EDs of Larchville, Lisduggan, Ticor North and Ticor South which have a combined population of 4,559 persons, representing approximately 7% of the metropolitan population. Lisduggan has retail space that is classified as Tier 2 (L2) (District centre) within the Waterford Metropolitan Area. It is comprised of Waterford Shopping Centre Lisduggan.

In close proximity to the shopping centre is Tyrone Road Business Centre (Lismore Park) – consisting of two building complexes featuring several retail and service outlets and restaurant, as well as a petrol station. This area forms a historic retail area in Lisduggan, integrated with the shopping centre and residential neighbourhoods. It is, however, not classified as part of the district centre.

Lisduggan is located approximately 800m north of SETU Cork Road (Main Campus), one of the largest employers and the largest educational facility in Co. Waterford. Lisduggan is also in approximately 1-1.5 km distance to most businesses within the Waterford IDA Estate, Co. Waterford's largest agglomeration of enterprises.

Figure 58: Lisduggan District Centre: Waterford Shopping Centre Lisduggan (Source: KPMG Future Analytics)

Figure 59: Lisduggan District Centre: Tyrone Road Business Park (Source: KPMG Future Analytics)

5.5.2 Diversity of Uses

Lisduggan District Centre has a total of 13 businesses classified as bulky, comparison, convenience shopping, as well as petrol stations. The vast majority fall into the categories of convenience shopping (primarily supermarkets) and comparison shopping.

Table 21 Diversity of retail uses in Lisduggan District Centre, including Tyrone Road Business Centre

Use	No. Units	% of units
Bulky	0	0%
Comparison	6	46%
Convenience	6	46%
Petrol stations	1	8%
Total	13	100%

Table 22 Commercial vacancy levels in Lisduggan District Centre, including Tyrone Road Business Centre

Use	No. Units	% of units
Vacant	2	5%
Total	40	100%

5.5.3 Retailer representation and Competitiveness

Lisduggan District Centre is characterised by a diversified retail infrastructure that includes, e.g., grocery retailers, clothing stores, pharmacies, and petrol stations. Additionally, the district centre fulfils social and cultural functions to the wider Lisduggan/ Lismore Park/ Larchville residential neighbourhoods in the shape of medical facilities, cafés and restaurants, banks and insurance brokers, and other services. The retail areas thus fulfil the requirements of a district centre as 'serving the social, cultural and retailing needs of [its] local catchment' (Retail Planning Guidelines, p.12).

5.5.4 Commercial vacancy levels

Retail spaces in Lisduggan District Centre are characterised by high occupancy. In total, two store spaces have been identified as vacant, representing 5% of existing business spaces. There is currently no structural problem with regard to vacancies in Lisduggan District Centre.

5.5.5 Accessibility

Accessibility of the district centre is evaluated in Chapter 6 Sustainable Travel Routes in this Report.

5.5.6 Environmental Quality and Public Realm

Waterford Shopping Centre Lisduggan and Tyrone Road Business Centre (Lismore Park) are characterised by large impervious surface areas without any significant greenery. Waterford Shopping Centre Lisduggan borders several green areas to the east and south. No roof structures are currently used for energy generation (photovoltaic). While Waterford Shopping Centre has amenities inside the building (i.e., seating), Tyrone Road does not boast any street furniture to enhance spending time.

5.5.7 Perception of safety and occurrence of crime

Waterford Shopping Centre Lisduggan is perceived as an area with medium safety levels. The perception is due to the presence of the spread-out character of the area, low footfall in some areas where facilities with restricted entry exist. Surveillance cameras and street lighting are unequally distributed. At the same time, there is an absence of graffiti and other traces of vandalism.

5.5.8 Shopping rents and commercial yields

A desktop review of retail rents was undertaken in January 2024 for all centres in the Study Area. However, there was insufficient data available to calculate a comparable average retail rent for Waterford Shopping Centre in 2024.

5.5.9 Customer views and behaviour

25% of respondents to the retail survey travel to Waterford Shopping Centre Lisduggan, the sixth highest value after city centre, other district centre, as well as Waterford Retail Park as a non-tier 1/2 destination. Lisduggan was highlighted as a destination with good offers better offering for fashion shopping than city centres by some respondents.

5.5.10 Recommendations

Lisduggan District Centre features a comprehensive and diverse offer of retail facilities, and ancillary facilities, meeting the criteria for a district centre. Hence, no recommendations are made to enhance the retail infrastructure.

Minor action is required to significantly improve accessibility and environmental quality. Transport-related recommendations that exceed the boundaries of the District Centre are included in Section 6.4.4 Sustainable Travel Routes: Lisduggan District Centre.

Table 23 Lisduggan District Centre – Recommendations

	Recommendation	Priority
1	Enhancing environmental quality of district centre by the planting of trees and shrubs	Long Term
2	Extension of footpaths and cycle paths within business estates	Medium Term
3	Provision of bicycle parking facilities with the District Centre	Medium Term

5.6 Ferrybank Shopping Centre

Figure 60: Ferrybank District Centre Aerial (Source: KPMG Future Analytics, based on Google Maps)

Ferrybank Shopping Centre is a designated district centre on the northern side of the River Suir, located in ED Kilculliheen, and serves the Waterford's northern contiguous settlement area largely encompassing ED Kilculliheen, ED Rathpatrick (both in Co. Kilkenny) and ED Ferrybank (Co. Waterford). The River Suir forms a natural barrier to the rest of Waterford City, limiting access from northern neighbourhoods to retail facilities south, and vice versa, creating a somewhat insular situation for the district centre. Ferrybank District Centre consists of the Ferrybank Shopping Centre constructed in 2009. Since its construction, this facility has remained largely unoccupied with only a branch library and the Council Area Office currently occupied. The constructed Ferrybank shopping centre comprises 3,102sq.m net convenience and 4,283sq.m net comparison vacant floorspace.

Ferrybank Shopping Centre is connected through Belmont Road (R711), Rose Road, and The Avenue. An underground parking is integrated in the shopping centre and can be accessed through the rear side

via The Avenue. In front of the shopping centre at Belmont Road is a bus stop that connects the area with Wexford/ Rosslare through a long-distance coach service (Expressway 40). In approximately 100 metres to the north of the shopping centre at Belmont Road is a bus stop that connects the area with Lyons Bar (Slieverue) and Ballygunner/ Waterford Hospital through lines 607 and 617. Pedestrian infrastructure exists in Belmont Road, The Avenue, and Rose Road. Belmont Road features a separate bike lane in one direction (southbound) only, while markings at junctions and roundabouts are missing. As the bike lane ends north and south of the shopping centre at the roundabout with The Avenue and the junction with Rose Road, there is a lack of integration with other cycling infrastructure in the city.

Waterford north of River Suir is largely a suburban settlement without a defined urban core. The shopping centre forms a cluster with other facilities nearby (Ferrybank Primary Care Centre, churches and graveyards, schools, a community college, and sports grounds) that are only partly connected directly through access roads/ footpaths. Due to the high vacancy of the shopping centre and the limited connectivity to adjacent facilities, there currently is a very limited perception of the area as a functionally integrated town/ community centre.

Retail in Waterford north of the River Suir is currently largely limited to Belmont Roundabout (approximately 700 metres from the district centre), the Ross Abbey Centre (approximately 2km from the district centre), and scattered facilities in Fountain Street (approximately 500 metres from the district centre). Due to their distance, none of these facilities form part of the district centre. The demand for retail and the interaction between neighbourhoods north and south of the river are expected to undergo significant change over the coming years due to projected population and employment growth in the northern neighbourhoods (see Waterford Metropolitan Area Transport Strategy) and the improved connectivity because of the new sustainable transport bridge (currently under construction). With this changing dynamic, a transformation of Ferrybank Shopping Centre into a functioning district centre within the retail hierarchy of the Waterford Metropolitan Area should be encouraged.

6.0 Sustainable Travel Routes

6.1 Introduction

This section of the report evaluates current accessibility of main shopping areas and identifies sustainable travel routes to and from each main shopping area in the Metropolitan Area while exploring opportunities for enhancing sustainable travel in alignment with the 10-minute neighbourhood concept.

6.2 Goals and developments

During most of the post-World War 2-period accessibility and connectivity by active modes of travel have been neglected as cars became the predominant mode of transport. Public roads have become a car-centric infrastructure. As population growth resumed in the 1960s, traffic on roads has steadily increased, leaving pedestrians and cyclists in ever more vulnerable positions. Urban sprawl/ suburbanisation has led to the creation of segregated low-density residential estates that are often oriented inwards and do not integrate into a wider district/ neighbourhood, inhibiting walking and cycling, and instead further promoting the usage of cars. At the same time, the city centre has become characterised by spread-out surface parking while district centres have been built around car primacy. Today, most visitors access city centre and district centre locations by car, while cycling is often considered unsafe, and public transport unreliable.

Over the past decade, Waterford City & County Council have taken steps to amend some of these issues: The South Quays have become more accessible to pedestrians and cyclists, roads have been pedestrianised and new cycle paths and bus lanes have been marked on major roads in the City. Improvements however are isolated, and the drive towards change has not yet produced measurable positive outcomes in terms of a modal shift.

On the national level, this drive is expressed within the National Planning Framework in which:

- regeneration and rejuvenation of city centres, consideration to environmental assets and enhanced levels of amenity and design quality;
- prioritisation of walking and cycling accessibility to existing and proposed developments as save and convenient alternatives to the car; and
- car parking to be in line with sustainable land use and design principles are emphasised.

Recently, the Road Traffic Bill 2023 was tabled which looks at the reduction of default speed limits on urban roads in built-up areas, as well as enhanced powers for Councils to install cycling and bus priority measures.

On a local level, the Waterford Metropolitan Area Transport Strategy (WMATS) aims to provide a framework for ‘fundamental change to how people will move around the WMA’ by making ‘more efficient use of valuable street and road space, and a prioritisation of walking, cycling and public transport’. In this light, ambitious targets for modal share changes for 2040.

According to the strategy, the modal shift is to be achieved through following objectives:

- To meet the demand generated by the future growth of the WMA through the provision of a safe and efficient sustainable transport network;
- To prioritise sustainable transport and active travel to reduce car dependency;
- The provision of a high level, citywide public transport system connecting to key destinations within high demand corridors;
- To increase transport capacity where needed to achieve the Strategy outcomes;
- To deliver a fully accessible and inclusive transport system.;

- To enhance the public realm of the WMA through demand management measures and transport interventions;
- To minimise the impact of motorised traffic in urban centres;
- To identify and protect key strategic routes for the movement of freight traffic.

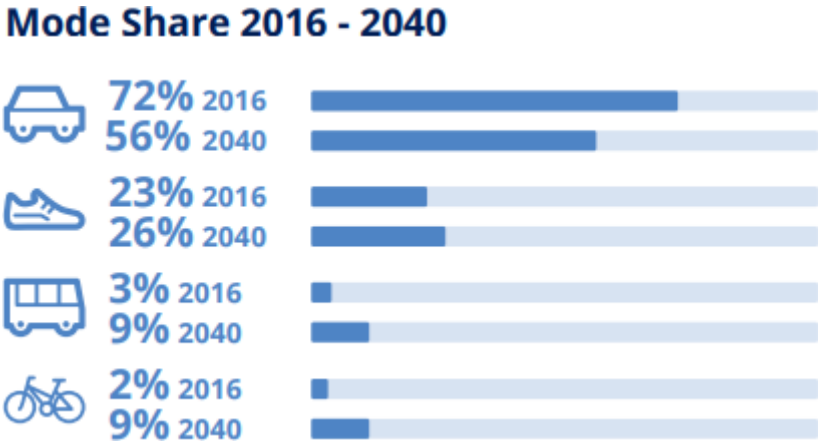


Figure 61: Mode share 2016-2040 (Source: Waterford Metropolitan Area Transport Strategy)

The ambitious mode share goals and objectives set out in the transport strategy represent significant change to the way private motorised transport, public transport, and active modes of travel are prioritised. Setting the conditions for this change is particularly important as the population of Waterford City and the metropolitan area is projected to grow further, which will invariably lead to increased trip generation between locations of retail, work, education, amenities, and residences.

On metropolitan and wider regional scale, the North Quays Development opposite Waterford City Centre is expected to drive change to more sustainable travel. Construction has commenced on the relocation of Waterford Plunkett train station and a 'sustainable transport bridge' connecting new train station at the North Quays with the historic city centre (Clock Tower/ Barronstrand Street). The relocated train station will provide opportunities for interchange with city bus services via the new sustainable transport bridge. The overall effect on the wider Waterford public transport system will be contingent upon the quality and quantity of service provision, including bus prioritisation on the urban road system.

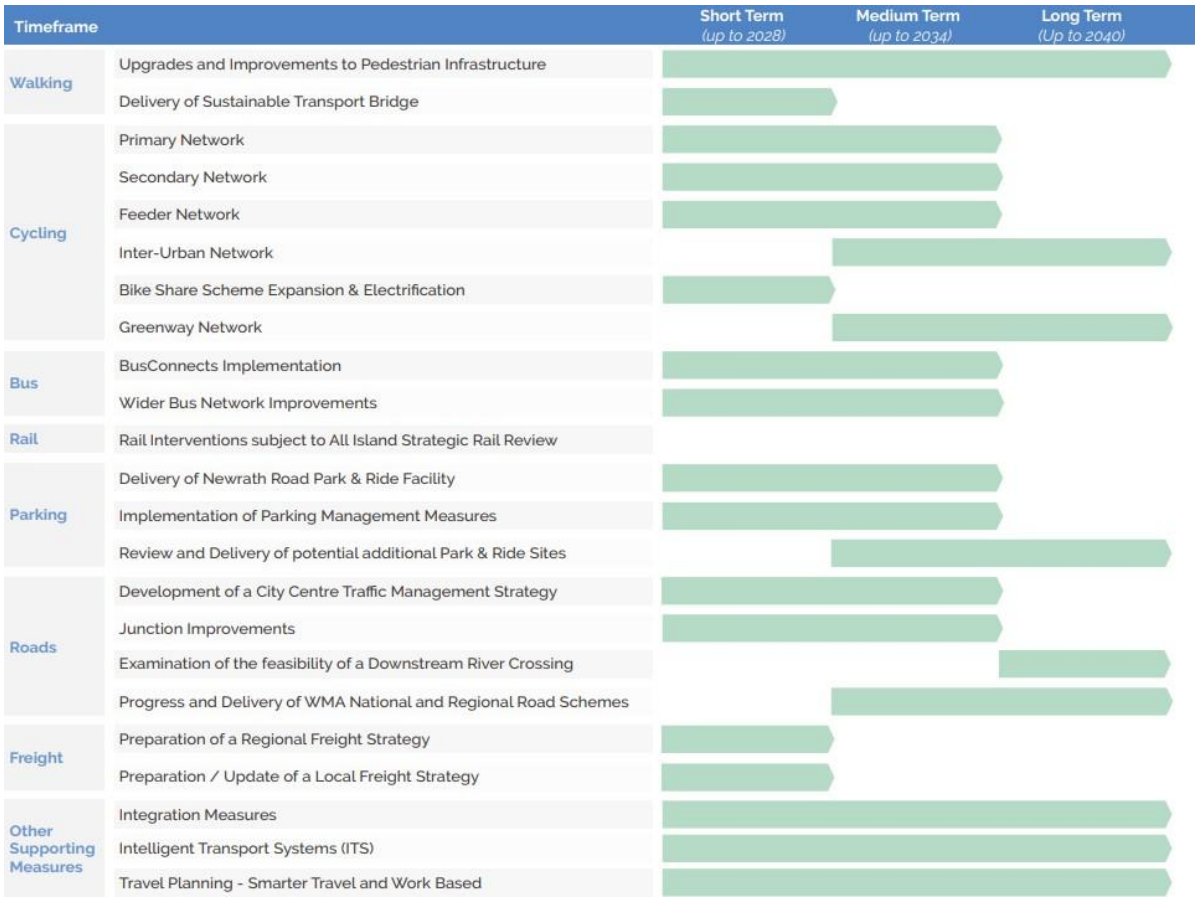


Figure 62: Implementation Timeframe of WMATS Recommended Measures 2028-2040 (Source: Waterford Metropolitan Area Transport Strategy)

6.3 Evaluation of current access to retail areas

Accessibility of the retail areas presented below with a catchment calculation (walking and driving) for the Retail Core Area and the three district centres Ardkeen, Kilbarry/ Tramore Road/ Inner Relief Road, and Lisduggan. For the fourth district centre, Ferrybank, a walk-catchment calculation is not carried out as the limited retail presence would not provide a realistic picture of actual walk-time and drive-time behaviour.

Underlying data used are walk-time and drive-time data from ArcGIS Online (AGOL) repositories. The respective catchments are limited to 10 minutes for walking (using 10-minute walk-time data), in line with the 10-minute neighbourhood concept, and 30 and 45 minutes for driving from/to city centre (using 30 and 45 minute drive-time data) and 20 and 30 minutes for driving from/to district centre (using 20 and 30 minute drive-time data) to reflect the varying relevance of tier 1 and 2 categories for the wider region. The calculations are visualised for peak shopping hours (average Fridays 5 pm).

6.3.1 City centre (Retail Core Area) walk-time

Accessibility of the City centre (Retail Core Area) is calculated using Clock Tower (north end of Retail Core Area) and corner New Street/ Michael Street (south end of Retail Core Area) as starting points. The calculated catchment extends over the entire Retail Core Area, the Tourism & Heritage Quarter, the Cultural Quarter, as well as most parts of Ballybricken, Poleberry, and into Tramore Road/ Cork Road.

The estimated population of the catchment is approximately 6,700 persons (based on CSO Census 2022 data).

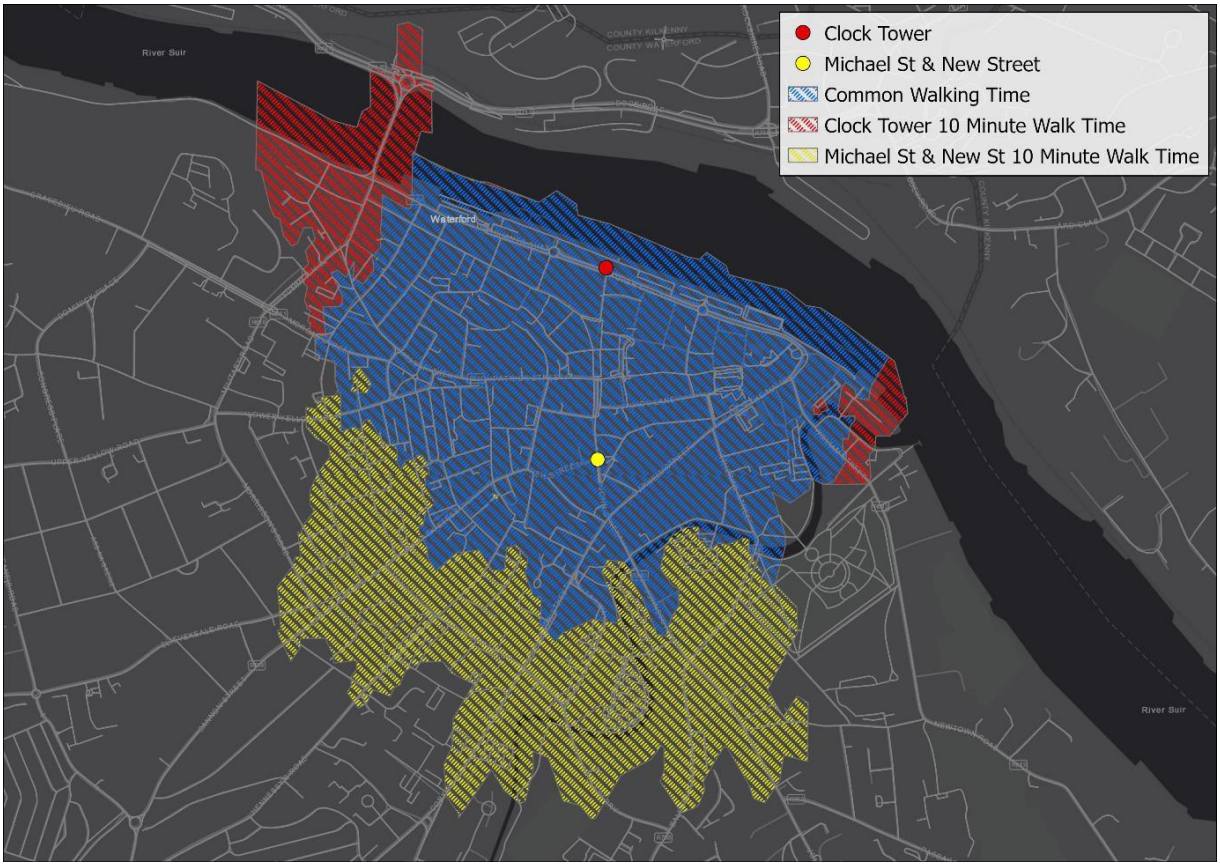


Figure 63: Walk-time Accessibility of Retail Core Area (Source: KPMG Future Analytics, based on ArcGIS Online data)

6.3.2 Ardkeen District Centre walk-time

Accessibility of Ardkeen District Centre is calculated using Dunmore Road/ Maypark Lane Roundabout (north end of Ardkeen Shopping Centre) and Esker Drive Roundabout (south end of Ardkeen Retail Park) as starting points. The catchment extends over large parts of Grange Upper ED and smaller parts of Ballynakill ED, Farronshoneen ED, Grange South ED and Park ED. Waterford University Hospital as a major employer is within the catchment. Connectivity is limited where there is a lack of connecting walkways, e.g., between Outer Ring Road and Farronshoneen). The estimated population of the catchment is approximately 4,200 persons (based on CSO Census 2022 data).

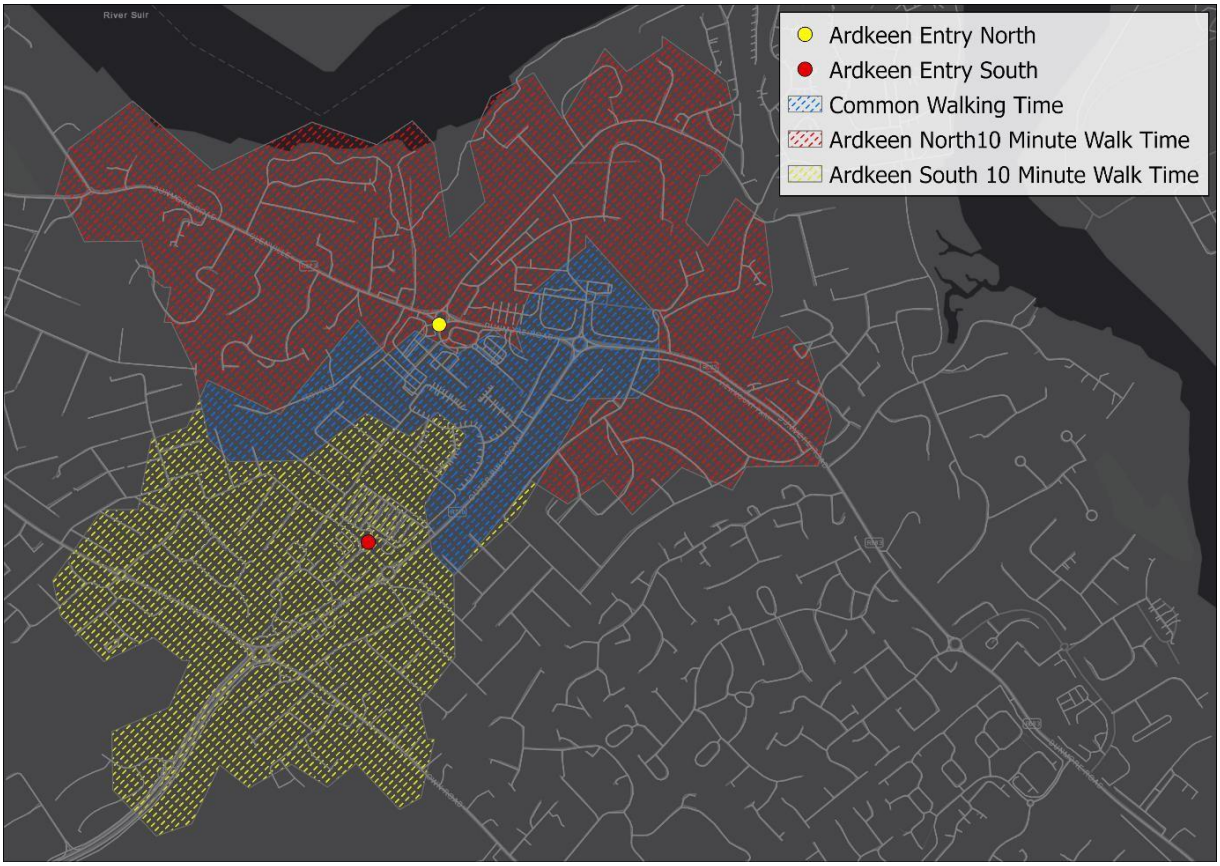


Figure 64: Walk-time Accessibility of Ardkeen District Centre (Source: KPMG Future Analytics, based on ArcGIS Online data)

6.3.3 Kilbarry, Tramore Road, Inner Relief Road District Centre walk-time

Accessibility of Kilbarry, Tramore Road, Inner Relief Road District Centre is calculated using Tramore Road Roundabout, Kingsmeadow Roundabout, Woodie's access, Lidl access as starting points. The catchment extends over most of Kingsmeadow ED and Roanmore ED, as well as smaller parts of Ballytruckle ED, Grange North ED, Lisduggan ED, Mount Sion ED and Poleberry ED. The estimated population of the catchment is approximately 3,500 persons (based on CSO Census 2022 data).

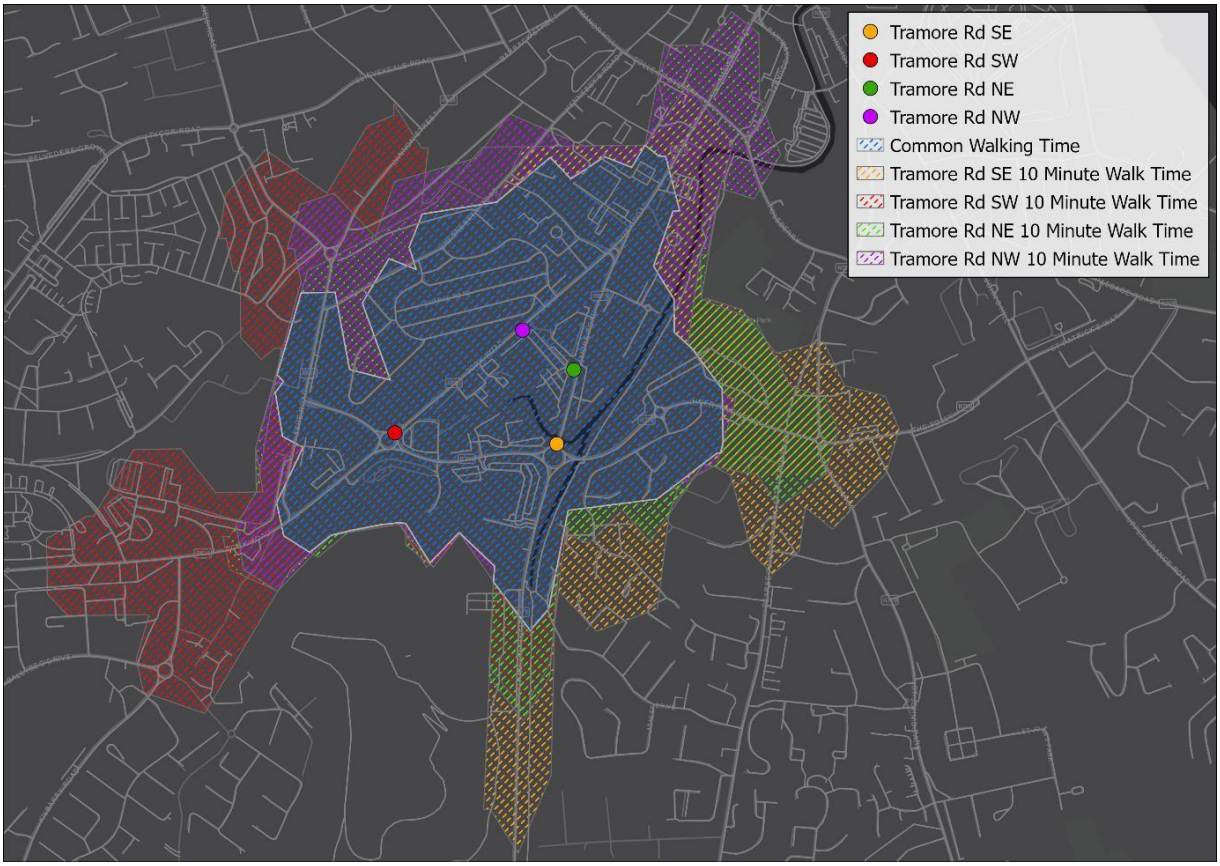


Figure 65: Walk-time Accessibility of Kilbarry, Tramore Road, Inner Relief Road District Centre (Source: KPMG Future Analytics, based on ArcGIS Online data)

6.3.4 Lisduggan District Centre walk-time

Accessibility of Lisduggan District Centre is calculated using Paddy Browne's Road/ Tyrone Road, Paddy Browne's Road/ main access to shopping centre, and Church Road/ access to Shopping Centre as starting points. The catchment extends over Larchville ED, Lisduggan ED and Ticor South ED, as well as parts of Morrisson's Avenue East ED and Slievekeale ED. The estimated population of the catchment is approximately 4,300 persons (based on CSO Census 2022 data).

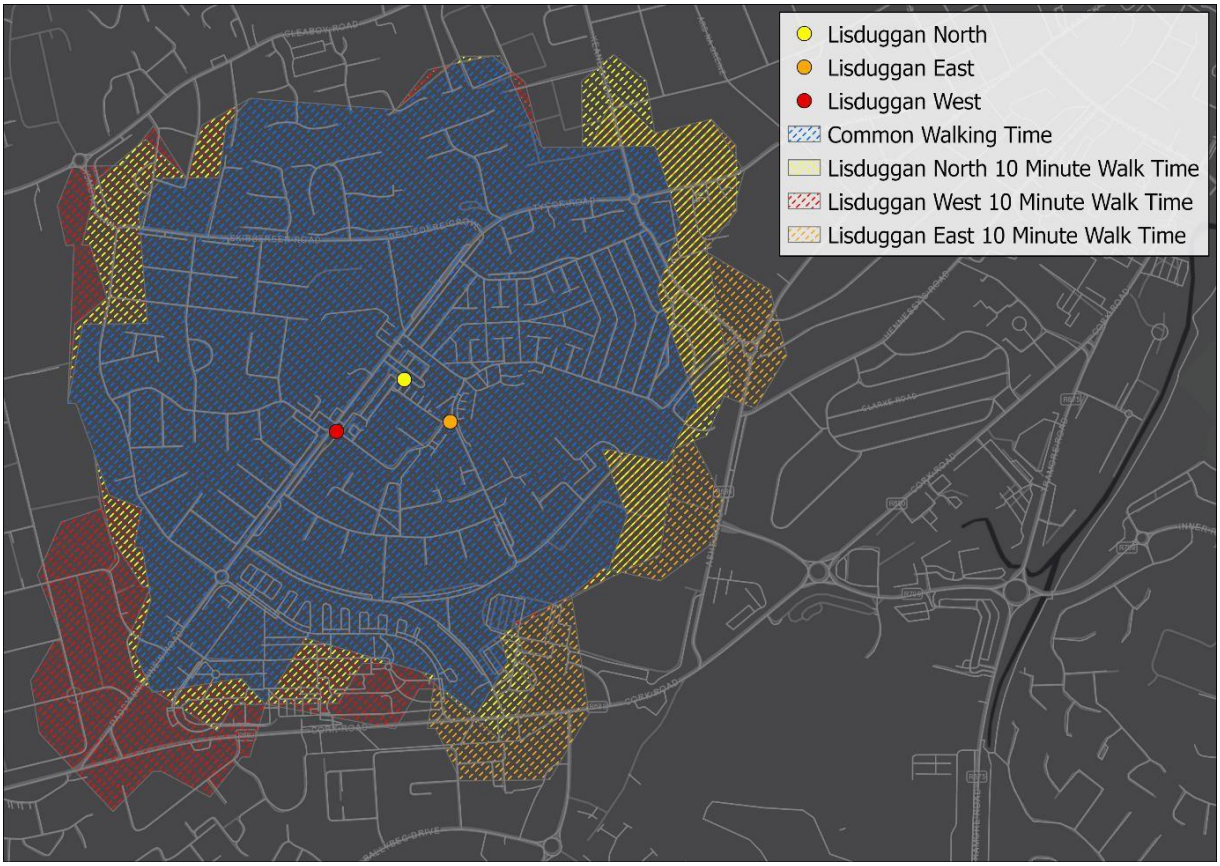


Figure 66: Walk-time Accessibility of Lisduggan District Centre (Source: KPMG Future Analytics, based on ArcGIS Online data)

6.3.5 Ferrybank District Centre

As of 2022, Ferrybank ED had a total population 5,766 persons, representing approximately 9% of the Waterford Metropolitan area population. Due to the absence of pedestrian and cycle-friendly connections into Waterford City south of River Suir (with the limited exception of Edmund Rice Bridge), Ferrybank acts as a largely self-sufficient area for local convenience shopping. Convenience shopping is carried out mostly outside the confines of the designated but vacant Ferrybank District Centre, particularly in Ross Abbey Centre, Aldi Belmont Roundabout, and scattered facilities at Fountain Street; a clear de facto centre for convenience shopping does not exist. Shopping beyond convenience requires driving to other destinations in Waterford City or Co. Kilkenny. For these reasons, a walk-time accessibility analysis is not carried out for Ferrybank District Centre.

6.3.6 Waterford Tier 1 and Tier 2 drive-time

The catchments for driving extend across large parts of Co. Waterford, Co. Kilkenny and Co. Wexford, as well as small portions of Co. Carlow and Co. Tipperary. It is estimated that approximately 400,000 persons live within the drive-time catchment (based on Census 2022 data).

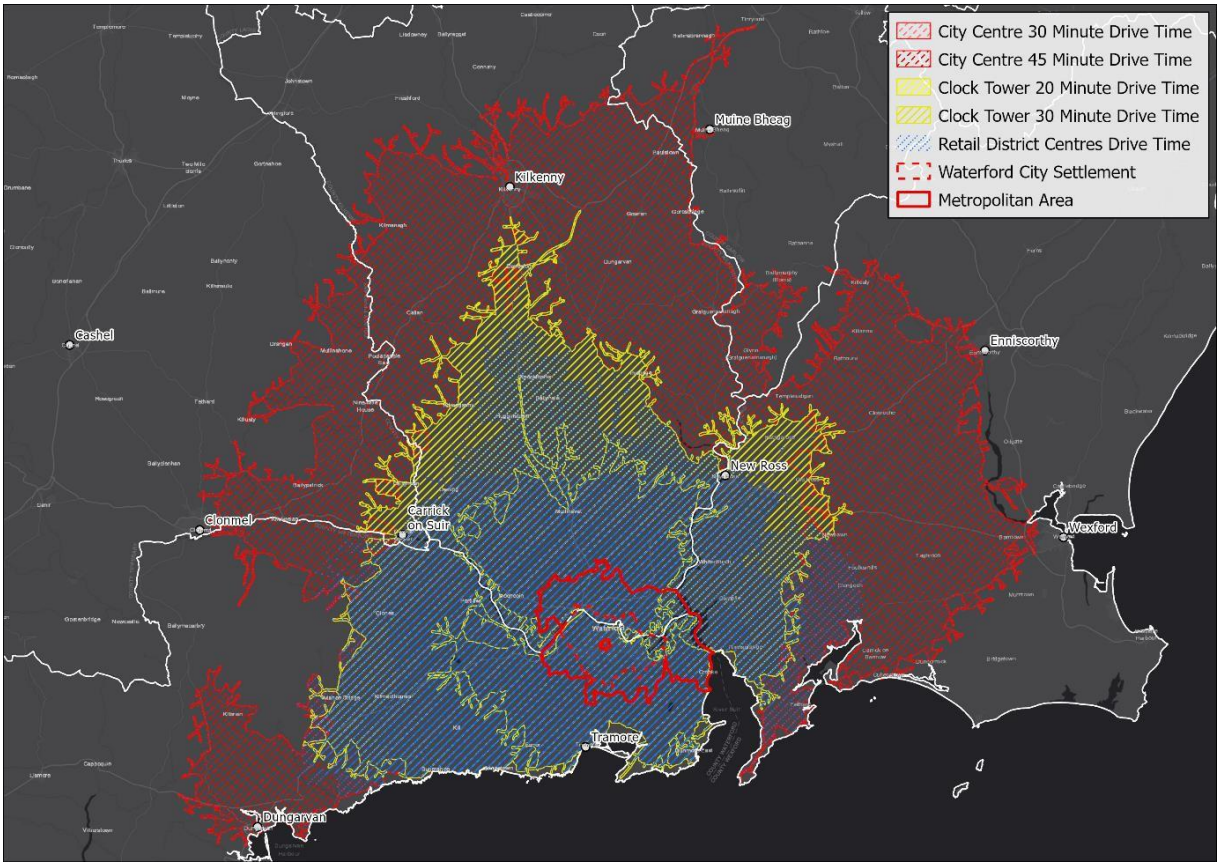


Figure 67: Drive-time Accessibility of Waterford Tier 1 and 2 centres except Ferrybank (Source: KPMG Future Analytics, based on ArcGIS Online data)

6.4 Identification of sustainable travel routes

This chapter conceptualises sustainable travel routes to and from each shopping area and identify opportunities for enhancing the use of sustainable modes which prioritise cycle and pedestrian access over cars in line with the neighbourhood, village, town & city concept as set out in the Waterford City and County Development Plan 2022 – 2028

Recommendations and actions are largely aligned with and partially go beyond the recommendations in the Waterford Metropolitan Area Transport Strategy. Actions are considered within an implementation timeframe, with short term (implementation up to 2028), medium term (implementation up to 2034), and long term (implementation up to 2040) timeframes, also aligned with the timeframes provided in the Waterford Metropolitan Area Transport Strategy.

6.4.1 City centre (Retail Core Area)

Private Motorised Transport

Currently, Waterford city centre is primarily accessed by private motorised transport. Public transport, active modes of travel, and other modes play a significantly less important role. The main access routes reach the city centre from

- northern direction via Edmund Rice Bridge to the South Quays;
- eastern direction via Dunmore Road – William Street – Lombard Street to The Mall;
- southern direction via John's Hill/ Ballytruckle Road – Johnstown – John Street to Apple Market/ Parnell Street, as well as from Cork Road/ Tramore Road to Manor Street;

- western direction via the western inner ring (Morrisson's Road, Military Road, Summerhill, Bridge Street to Ballybricken and the South Quays.

Northern, eastern, and southern access routes merge at the Tourism & Heritage Quarter (South Quays/ The Mall/ Parnell Street) and lead to significant traffic concentration in that area.

Primary parking facilities for accessing the city centre are clustered in the following locations:

- along the South Quays;
- in the city centre (Exchange Street Car Park, City Square Shopping Centre Car Park, Jenkins Car Park/ Little Patrick Street, Apple Market Car Park);
- east of the city centre (Bolton Street Car Park, Waterside Car Park);
- south of the city centre (Railway Square Car Parks, Miller's Marsh Car Park);
- west of the city centre (Ballybricken, The Glen Car Park, Thomas Hill Car Park); and
- street parking throughout the city centre.

Main access routes and parking facilities are shown below.

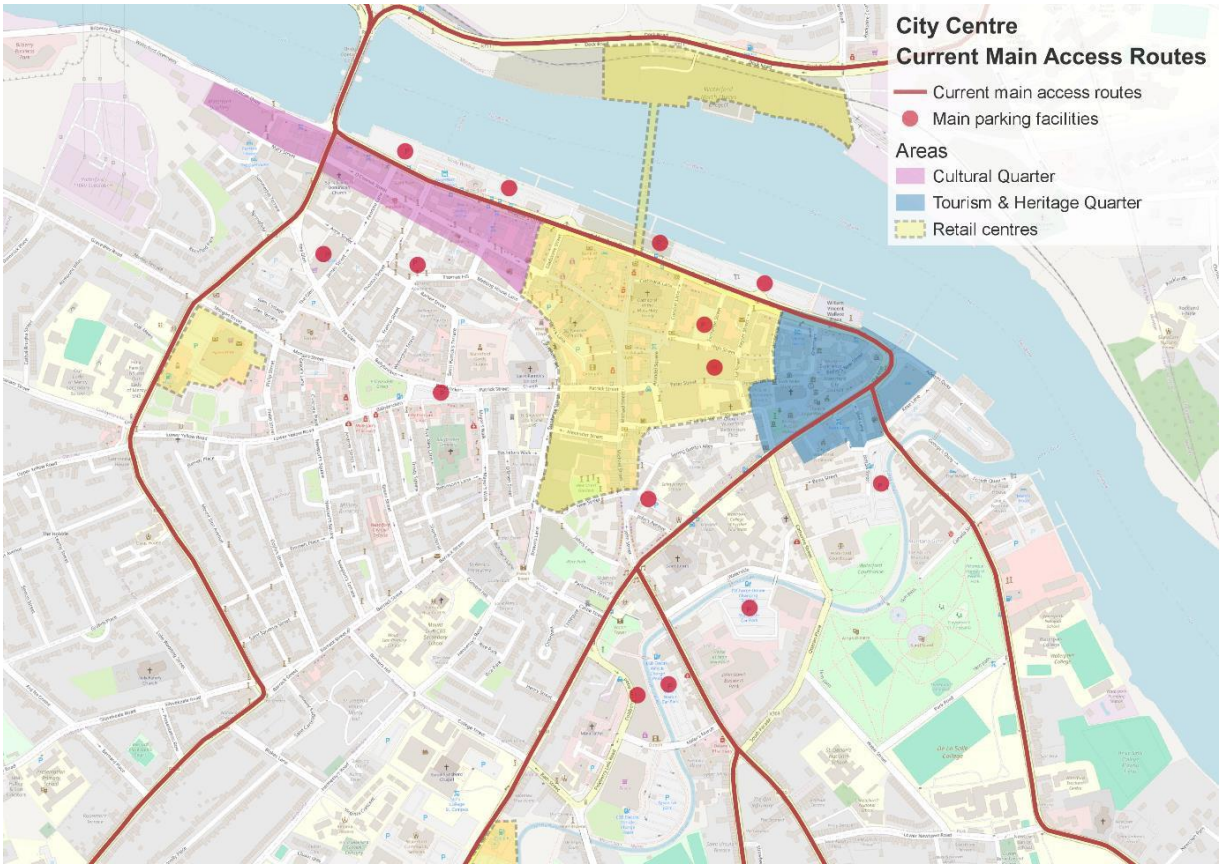


Figure 68: Main access routes to city centre for private motorised transport (Source: KPMG Future Analytics)

Public Transport

The main City Centre access route for private motorised transport, along the South Quays/ The Mall/ Parnell Street is simultaneously the major bus corridor with lines radiating out to SETU Cork Road Campus, Tramore, Ardkeen/ Waterford University Hospital, and other destinations. Bus services experience frequent delays due to this conflict with private motorised traffic which erodes the attractiveness of public transport due to concerns over the reliability of services. To address this issue

and improve public transport accessibility sections of segregated bus lanes have been implemented along the South Quays in the following locations however these bus lanes are fragmented:

- Merchant's Quay westbound from Gladstone Street to Vulcan Street;
- Merchant's Quay eastbound from Waterford Bus Station to Gladstone Street;
- Parade Quay eastbound from Keyser Street to William Vincent Wallace Plaza.

PUNCTUALITY - BUS ÉIREANN WATERFORD CITY (see note on interpretation of this data at bottom of table)													
	2022												
Route	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1
W1	62.8%	60.2%	59.0%	59.0%	72.5%	76.2%	76.4%	67.8%	70.4%	77.0%	73.5%	80.3%	81.6%
W2	72.4%	75.3%	67.8%	71.3%	77.2%	79.5%	84.5%	82.7%	80.4%	83.5%	83.5%	84.5%	86.3%
W3	76.8%	76.6%	77.7%	79.7%	82.4%	84.7%	84.2%	80.3%	81.5%	85.9%	87.9%	87.6%	89.2%
W4	81.9%	81.9%	85.0%	87.1%	88.6%	91.3%	87.9%	88.4%	86.8%	90.6%	88.7%	89.2%	90.2%
W5	75.3%	74.4%	79.4%	77.4%	81.3%	83.1%	84.7%	81.9%	82.2%	86.2%	85.9%	86.5%	88.4%

Figure 69: Bus Eireann Punctuality Report 2021-2022 for Waterford City (Source: KPMG Future Analytics, based on nationaltransport.ie)

The importance of bus corridors for the BusConnects scheme is expanded upon in the Waterford Metropolitan Area Transport Strategy, and the trajectory South Quays/ The Mall/ Parnell Street is defined as a primary corridor to be fully or partly frequented by up to 10 bus routes connecting the new Waterford public transport hub on the North Quays with nearly all residential, industrial and educational areas within the metropolitan area, as well as Dunmore East, Tramore and Kilmeaden outside the metropolitan area. The following targets are set in the strategy with respect to bus services:

- 63 km of bus lanes & bus priority measures;
- 1 min AM peak bus frequency in Merchant's Quay corridor;
- 3 min AM peak bus frequency in Manor Street corridor;
- Increase of public transport mode share from 3% (2016) to 9% (2040) and AM peak mode share from 4% (2016) to 11% (2040).

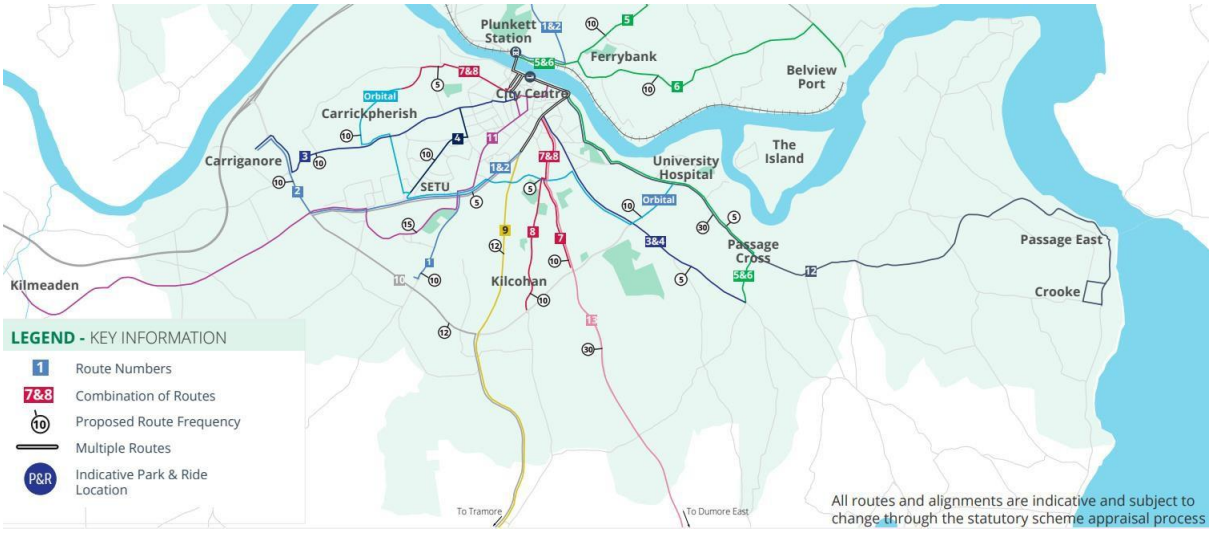


Figure 70: Proposed 2040 bus network with concentration of bus routes in the city centre (indicative route network) (Source: Waterford Metropolitan Area Transport Strategy)

Reaching these targets will depend on the implementation of infrastructure measures to ensure a higher frequency, reliability and accessibility of the bus network and overall seamless integration of public transport. Measures should include:

- Designation of continuous separate bus lanes in both directions;
- Connection of bus routes with new public transport hub at the North Quays and Park and Ride stations across the city;
- Accessible design of bus stops and access routes (i.e., signage, kerb-height adjusted bus stops);
- Incentives to encourage use of public transport by motorised transport users (e.g., combined Park and Ride and public transport tickets);
- Awareness campaigns to encourage use of public transport by all demographics;
- Procurement of low-floor and wheelchair-accessible bus fleet;
- Procurement of electric/ hydrogen-powered bus fleet (decarbonisation).

Active Modes of Travel

The route along the South Quays, The Mall, Parnell Street, Manor Street is also defined in the Waterford Metropolitan Area Transport Strategy as a primary route in the proposed Waterford Cycling Network. Main roads leading out of the city, such as Dunmore Road/ Newtown Road, John's Hill/ Upper Grange Road, Ballytruckle Road, Cork Road, Gracedieu Road/ Carrickphierish Road are also designated primary routes for cycling. Several stretches along most of these trajectories currently lack safe cycling infrastructure, and the width of public road space often forms constraints to the designation of separated space for cars, buses, bicycles and pedestrians. Examples of space constraints can be found in Dunmore Road, Parnell Street, and R686 (Bridge Street, Summerhill/ Military Road/ Morrisson's Road). Where space is limited, compromises to the detriment of one mode of transport are required. While in some instance (e.g., Dunmore Road, Parnell Street) this had led to unsafe (narrowly marked or non-marked) cycling infrastructure, in other instance (e.g., parts of Manor Street) this has led to a one-way traffic solution for cars).

The designation of 'priority routes' for active modes of travel, public transport, and private motorised transport is designed to facilitate decision-making on the preferential treatment for modes of travel on specific roads.

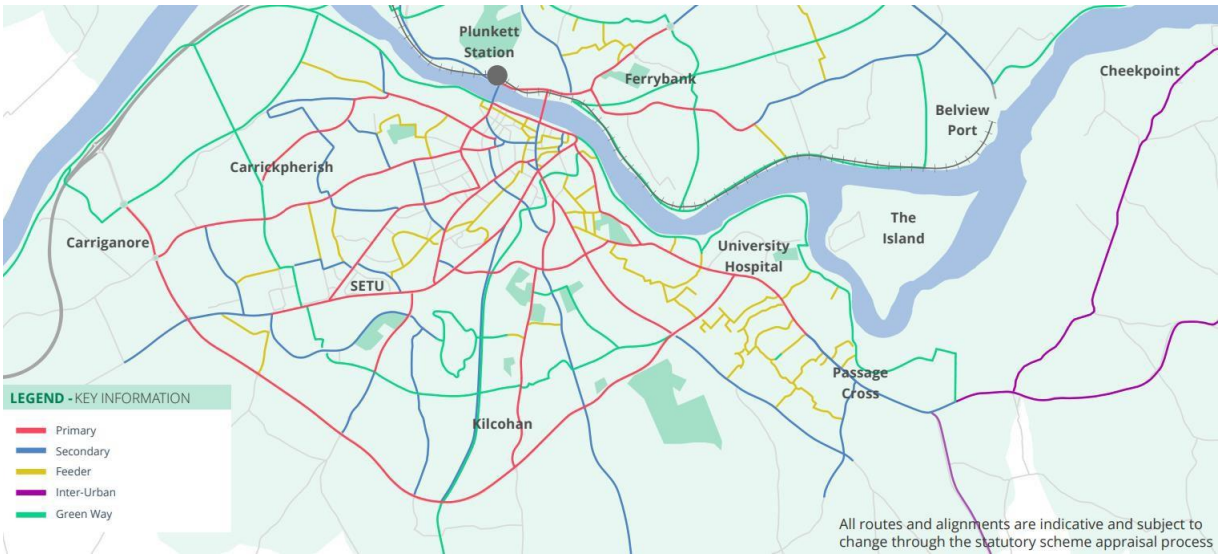


Figure 71: Proposed Waterford cycling network (indicative route network) (Source: Waterford Metropolitan Area Transport Strategy)

6.5 Recommendations

6.5.1 Waterford City Centre

In line with the sustainable transport corridor proposals set out in the Waterford Metropolitan Area Transport Strategy, three key recommendations are proposed to improve access to the city centre.

Recommendation 1	Reduce through traffic in the city centre to provide more efficient access to destinations in the city centre and improve the overall visitor experience in the City Centre.

According to the Waterford Metropolitan Area Transport Strategy, the mode share for private motorised transport is required to decrease, from 72% in 2016 to 56% in 2040 in the WMA. As the city is expected to continuously grow, and the Retail Core Area, the Tourism & Heritage Quarter, and the Cultural Quarter are expected to attract a higher share of residents and visitors, the decrease in vehicles in absolute numbers will be smaller.

The actions listed are aimed at discouraging transit traffic through inner city roads to enhance accessibility and safety for pedestrians and cyclists, as well as reducing emissions and improving air quality. Transit traffic should be encouraged to use the Outer Ring Road/ Waterford Bypass (N25). To achieve this, comprehensive traffic restrictions in the areas within the Inner Ring Road should be implemented, while measures for the Outer Ring Road/ Waterford Bypass should be aimed at easing traffic flow.

Table 24 Recommendation 1: Actions

	Actions	Priority
1	Phasing out of the toll on Waterford Bypass (N25). Explore alternative solutions for tolling as part of N25 Waterford Bypass PPP Scheme.	Short Term
2	Waterford City within the Inner Ring Road with an area of 2.7 km² (27 ha) to be designated as a reduced speed zone (30 km/h) for all vehicles.	Short Term
3	Closure of Parade Quay opposite Reginald's Tower using barriers (explore options) to restrict transit from South Quays to The Mall by private motorised vehicles. This is not to restrict public transport and active modes.	Medium Term
4	Designate a 0.3 km² (3 ha) area, largely comprising of Retail Core Area, Tourism & Heritage Quarter and Cultural Quarter and adjacent areas in the historic city centre as a restricted zone for general access and parking for private motorised vehicles (with exceptions for accessible, residents, service and delivery parking).	Medium Term
5	Review of all existing LA and privately-owned car parking facilities serving the city centre informed by an up-to-date car parking survey. Consolidation of public car public parking facilities to LA multi-storey or underground facilities with significant capacity within a c. 10-minute walking distance from John Roberts Square/Apple Market or frequent public transport access (park-and-ride). Proposed locations should consider identified P+R facilities in the WMATS and should primarily include: - North Quays transport hub (Park and Ride, in proximity to new Sustainable Transport Bridge), - Location of current Plunkett train station - The Glen/ Glass House Lane (existing car park The Glen and opportunity site between Summerhill, The Glen, Glasshouse Lane),	Short Term

	- Ballybricken (replacing overground parking by larger underground parking at Ballybricken overground parking and Ballybricken Green) to provide significant capacity for city centre), - Cork Road – near SETU College Street Campus (between SETU and administrative buildings/ Waterford HSE Local Health Office), - Cork Road/ Tramore Road/ Inner Ring Road/ Supervalu/ Regional Sports Centre (Park and Ride; replacing overground parking Regional Sports Centre, or vacant site opposite Ivory Retail Park), - Waterford University Hospital/ Maypark Lane (Park and Ride; replacing current overground parking), - Existing locations City Square, Exchange Street, Merchants Quay, - Outer Ring Road (near Butlerstown Roundabout or Six Cross Roads Roundabout.	

Recommendation 2	Facilitate improved access to the city centre by public transport

According to the Waterford Metropolitan Area Transport Strategy, the mode share for public transport is required to triple, from 3% in 2016 to 9% in 2040. As the city is expected to continuously grow, and the Retail Core Area, the Tourism & Heritage Quarter, and the Cultural Quarter are expected to attract a higher share of residents and visitors, the required increase in public transport users in absolute numbers will be significantly higher.

The actions listed below are aimed at incentivising residents and visitors to significantly increase the use public transport. This can be achieved through the prioritisation of buses on inner city roads (particularly along primary bus corridor), the provision of accessible, frequent and low-emission fleet, and an integrated and attractive ticketing model. Different bus lines should strategically connect with each other, as well as the train station, parking facilities, bike rental stations, and main residential areas.

Table 25 Recommendation 2: Actions

	Actions	Priority
1	Bus priority routes along Waterford Metropolitan Area Transport Strategy designated primary bus corridor South Quays, The Mall, Parnell Street, Manor Street/ Poleberry Link Road, Cork Road/ Tramore Road, i.e., design layout of road to prioritise public transport, in line with Bus Connects proposals	Short Term
2	Implementation of comprehensive bus route network with dense frequency based on proposals in Waterford Metropolitan Area Transport Strategy, in line with Bus Connects proposals	Short Term
3	Conceptualising of an integrated ticket model that incentivises residents and visitors alike and integrates public transport with LA-operated parking facilities.	Medium Term
4	Optimisation of disabled access/ enabling seamless use: Review of all bus stops and service provision by all bus companies	Medium Term
5	Introduction of a low-emissions bus fleet.	Long Term

Recommendation 3	Facilitate improved access to the city centre by active modes of transport.

According to the Waterford Metropolitan Area Transport Strategy, the mode share for pedestrians and cyclists is required to increase by 40%, from 25% in 2016 to 35% in 2040. As the city is expected to continuously grow, and the Retail Core Area, the Tourism & Heritage Quarter, and the Cultural Quarter are expected to attract a higher share of residents and visitors, the required increase in pedestrians and cyclists in absolute numbers will be significantly higher.

The actions listed below are aimed at encouraging walking and cycling from residential areas, parking facilities, out-of-centre education, work, and event locations to the city centre. This requires a safe and attractive design of public space and an attractive provision of facilities for different interests. Enhanced connectivity within city centre locations (Tourism & Heritage Quarter, Cultural Quarter, Retail Core Area) should also aim at increasing footfall for retail businesses, tourist and cultural destinations and public spaces.

Table 26 Recommendation 3: Actions

	Actions	Priority
1	Designation of separate safe and accessible cycle paths along roads radiating outwards from city centre to settlement areas, including - South Quays, The Mall, Parnell Street, Manor Street, Cork Road, - Further extend the riverside track between the city centre and Ardkeen as opportunities arise, consistent with objective WCD06, Appendix 2 of the development plan. - Lombard Street, William Street, Dunmore Road/ Newtown Road, - John's Street, Johnstown, John's Hill, - Ballytruckle Road, Lower Grange, - Newgate Street, Barrack Street, Slievekeale Road, Paddy Browne's Road, - Patrick Street, Morgan Street, Gracedieu Road; where separate cycle paths are not viable due to space constraints, shared spaces with safety instalments for cyclists should be considered.	Short Term
2	Preservation of currently pedestrianised roads and designation of priority roads for active modes of travel while continuing to allow access for motorised vehicles; roads to be considered would include O'Connell Street, Vulcan Street, Gladstone Street, Waterside, Adelphi Quay.	Medium Term
3	Redesigning of the South Quays (road and waterfront) - Redesigning of South Quays (Merchant's Quay to Customs House Quay) as bus priority road with separate cycle paths alongside entire trajectory, and continued access for cars for delivery and service purposes, parking at Exchange Street, City Square Car Park, Meagher's Quay/ current bus station, and roadside parking; - Redesigning of Parade Quay as shared space for bus and active modes of travel; - Expansion of sidewalk (Boulevard) from Meagher's Quay to Parade Quay - Redesigning of pillared South Quays as themed spaces, e.g., Greenway extension/ Sports Leisure Area, Meagher's Quay Parking, Clock Tower Square/ Leisure Amenities, Harbour History Space, Viking Waterside Space.	Medium Term
4	Provision of safe and attractive walkways from public parking facilities to city centre locations, and improvement of east-west connectivity between distinct city centre quarters, with key routes including - Thomas Street/ O'Connell Street, - Saint Patrick's Terrace/ Thomas Hill, - Patrick Street, - Manor Street, Parnell Street; consideration to be given to lighting, CCTV, signposting, street furniture.	Medium Term
5	Linkage of New Ross Greenway, Dungarvan Greenway, Tramore Greenway at South Quays/ Sustainable Transport Bridge; this requires: - extension of Dungarvan Greenway to South Quays, and - extension of Tramore Greenway from Millers Marsh via current Millers Marsh car park (river side), Waterside, Courthouse Park, current Bolton Street car park, Rose Lane car park (river side) to Adelphi Quay.	Long Term

6	Reviewing cul-de-sac roads and road ends in inward-oriented residential areas for pedestrians and cyclists to increase permeability/ promote walking and cycling and decrease walk and cycle times to Retail Core Area and district centres, particularly in: - residential areas between Ballytruckle Road and Airport Road, - residential areas between Airport Road and Upper Grange Road, - residential areas between Dunmore Road and Upper Grange Road/ Williamstown Road, - Ballinakill to Dunmore Road, - Ballybeg to Kilbarry Nature Park.	Long Term

The main recommendations for private motorised transport, public transport, and active modes of travel are visualised on the maps below.

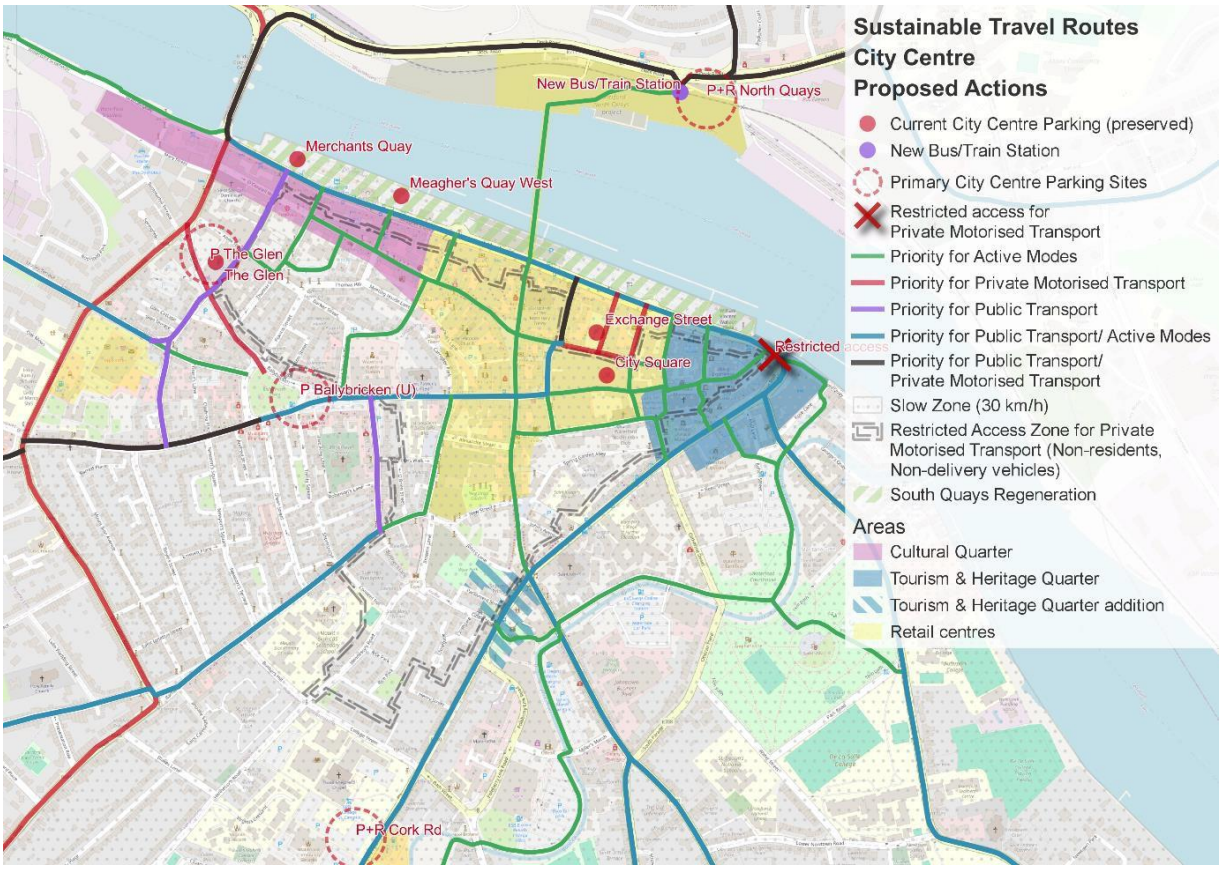


Figure 72: Sustainable travel routes: Proposed actions for City Centre (Source: KPMG Future Analytics)

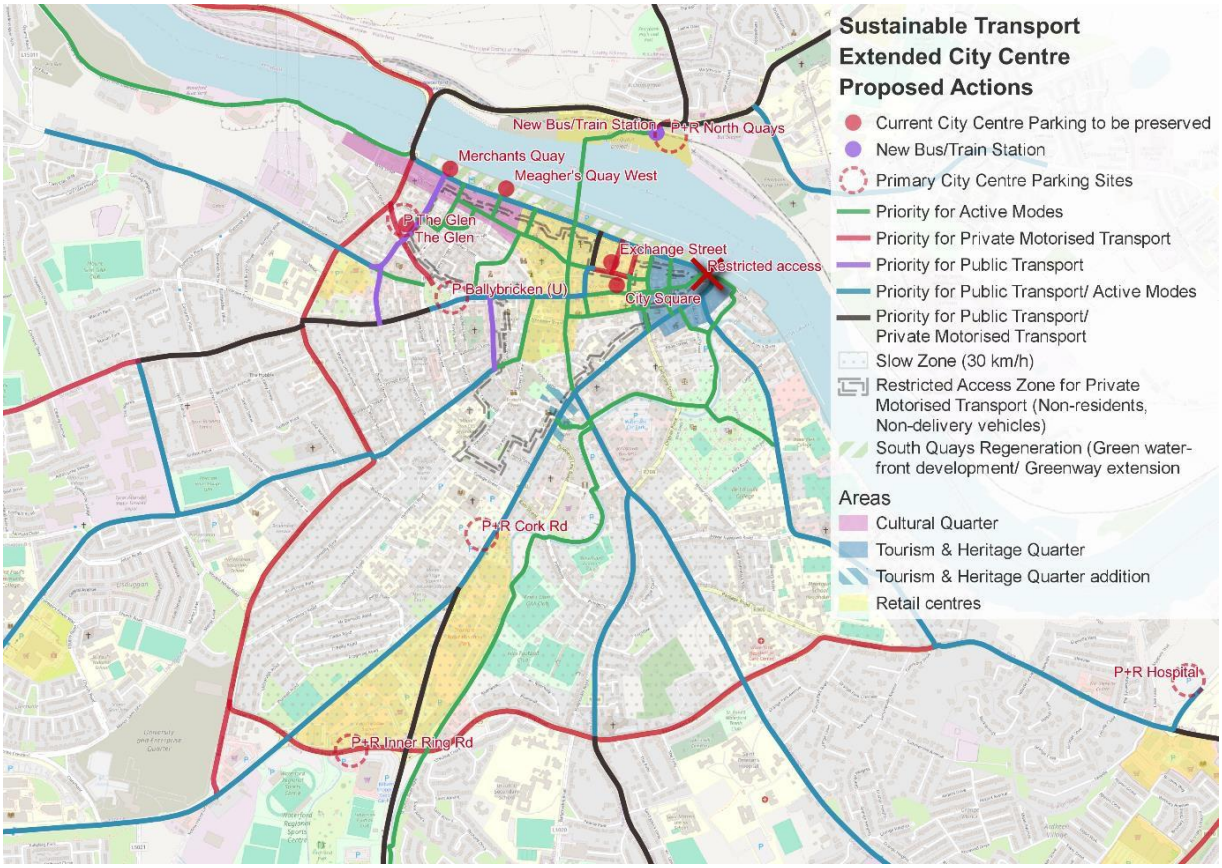


Figure 73: Sustainable travel routes: Proposed actions for Extended City Centre (Source: KPMG Future Analytics)

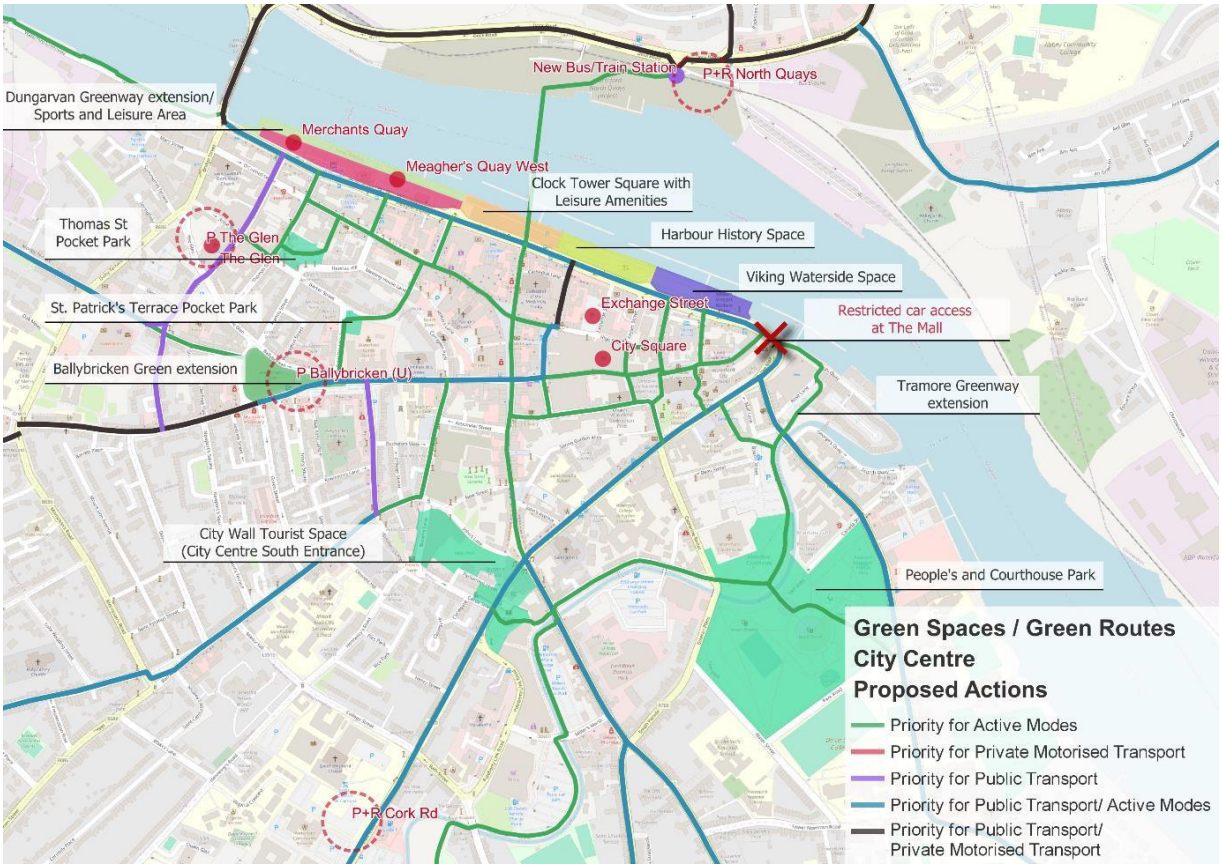


Figure 74: Green Spaces/ Green Routes: Proposed actions for City Centre (Source: KPMG Future Analytics)

Figure 75: Green Spaces/ Green Routes in the city centre, design example London (Sources: Aktiv Mobil Baden-Württemberg, available at: https://www.aktivmobil-bw.de/gute-beispiele/radvorrang-umwidmung/london-mini-hollands/)

Figure 76: Green Spaces/ Green Routes in the city centre, design example Antwerp (Sources: Blauw Groen Vlaanderen, available at: https://blauwgroenvlaanderen.be/uploads/01_Tuinstraat_LRS_%C2%A9JeroenBroeckx-_NA01-kl-e1645452854310-1024x563.jpg)

Figure 77: Green Space/ Green Routes in the South Quays, design example Warsaw (Source: Warsaw Tour, available at: https://warsawtour.pl/wp-content/uploads/2022/04/Bulwary-wislane-fot.-Filip-Kwiatkowski-2.jpg)

The functional city centre consists of Retail Core Area, Tourism & Heritage Quarter and Cultural Quarter, as well as Night-time agglomeration around Apple Market. With the multitude of uses, the city centre exerts a cross-functional role for the entire city and metropolitan area. While the Tourism & Heritage Quarter and the Cultural Quarter can be considered as having regional significance, the Retail Core Area has not been able to act as a regional retail hub or benefit from the developments in Tourism & Heritage and Cultural sector. While expansion of the retail offering is key to Waterford's aim to become the regional retail hub, challenges have also been identified with regard to creating physical links between quarters in the shape of attractive walkways.

The need for improvement of physical links has been identified during on-site evaluation and expressed by stakeholders and survey respondents for the Tourism & Heritage and Retail Core Area. High Street, Peter Street and Lady Lane currently represent the natural walkways between both areas.

- With High Street partly leading past the main access to City Square car park, there are limited opportunities for a transformation into a primary walkway.
- Peter Street leads past a Local Authority-supported retail store, Saint Olaf's Church and former Franciscan Church and Friary towards City Square Shopping Centre, and further to Arundel Square. It is largely pedestrianised. High windowless walls and impressions of dereliction currently present limits to this trajectory being perceived as an attractive walkway.
- Lady Lane leads past a former Church (now Waterford County Badminton Association), former Franciscan Church and Friary, City Square Shopping Centre (no entrance) to the Waterford City & County Library. High windowless walls and main delivery entrance for a part of the shopping centre, as well as impressions of dereliction along buildings on the south side currently present limits to this trajectory being perceived as an attractive walkway.

Both Peter Street and Lady Lane carry opportunities as walkways between Retail Area and Tourism & Heritage Quarter. Key opportunity site is the Franciscan Church and Friary that has been undergoing a transformation since the 2019 departure of friars due to demographic challenges in the community. Future potential uses could reconcile Franciscan traditions with a museal and tourist-centred usage that would involve the heritage buildings as well as the back gardens. The latter could be redesigned into an open space with community and visitor functions that forms a connection between Lady Lane and Peter Street. Unified paving in Peter Street (from Henrietta Street to City Square Shopping Centre) provides an opportunity to improve safety and walkability along this route. Long-term redevelopment of parts of City Square Shopping Centre should further look at creating active frontages towards Lady Lane and Peter Street, as well as reinstation 24-hour public access throughout Peter Street to Arundel Square.

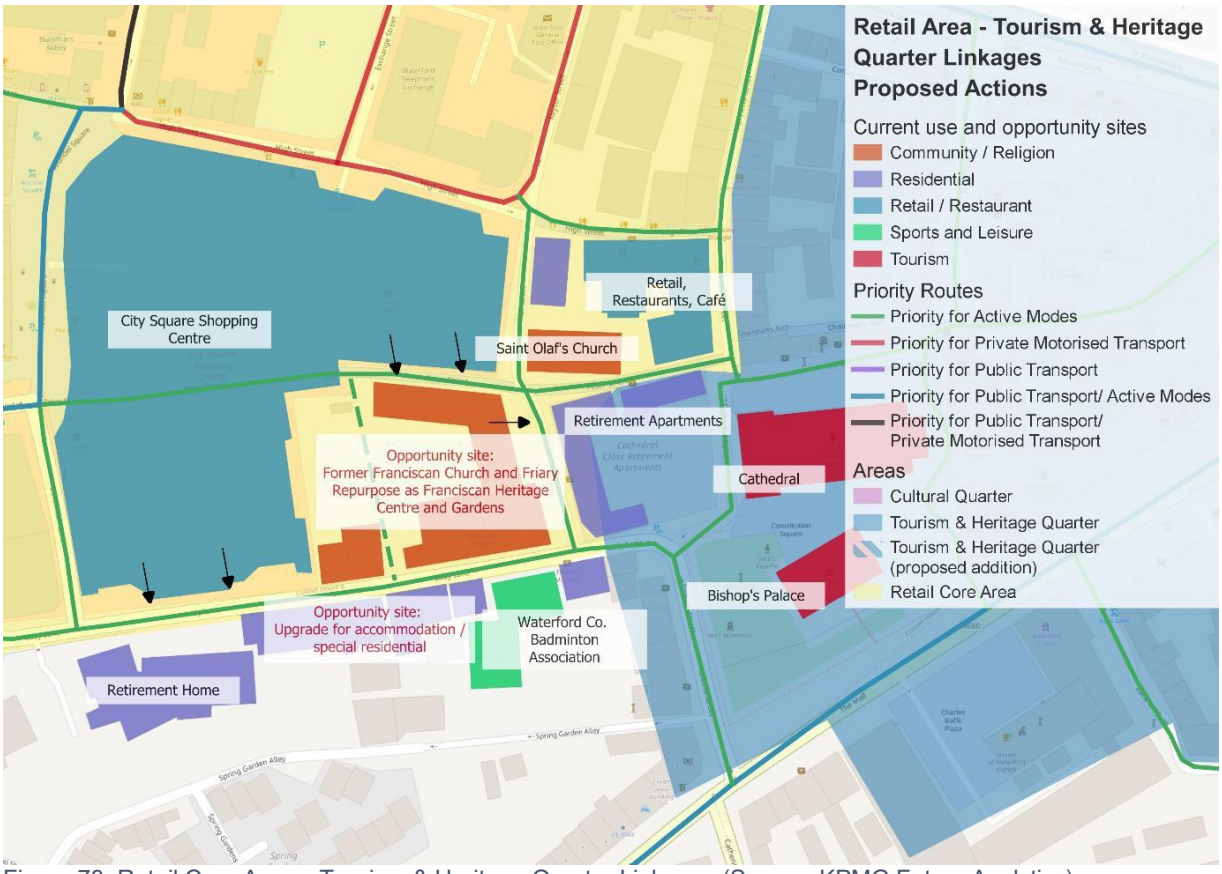


Figure 78: Retail Core Area – Tourism & Heritage Quarter Linkages (Source: KPMG Future Analytics)

Waterford city centre is characterised by opportunity sites that are in ownership of Waterford City & County Council. Site redevelopment and building restoration should take into consideration opportunities for designing pocket parks to enhance green walkways between quarters, as well as the need for the provision of housing with the aims to satisfy growing housing demand from different demographics and increase footfall and vibrancy in city centre. In order to prevent additional car traffic in central areas at large scale, innovative examples around parking minimisation and promotion of active travel should be incorporated into development plans.

An improved integration of retail with culture, tourism, and sustainable housing can enhance the role of city centre as public space where with a higher user frequency and thus vibrancy.

6.5.2 Ardkeen District Centre

Private motorised transport

Access routes to Ardkeen District Centre are primarily focused on motorised vehicles. Ardkeen Shopping Centre can be accessed from Dunmore Road/ Maypark Lane roundabout from three directions, and additionally from Dunmore Road (further east) from one direction. On both Dunmore Road and Maypark Road a speed limit of 50 km/h applies. From a wider perspective, Dunmore Road fulfils the role as primary entrance/exit route from city centre to Ardkeen and other settlements to the east of Waterford City, as well as primary connector between City centre and Waterford University Hospital. Dunmore Road is also the location of a number of primary and secondary facilities. These multiple roles lead to frequent congestion and difficulty of access for motorised vehicles.

Ardkeen Retail Park and The Broadcast Centre are primarily accessed through the Outer Ring Road, and secondarily through Esker Drive, connecting the centre to parts of Ardkeen Village. The Outer Ring Road is classified as a Regional Road (R) with speed limit 50 km/h and connects Waterford to the wider region (Tramore, N25 to Dungarvan/ M9 access). Esken Drive is a residential road with speed limit 30 km/h (slow zone).

All parts of Ardkeen District Centre can avail of ample, spread-out surface parking that allow access to the individual buildings.

Public transport

Ardkeen District Centre is not directly served by urban bus lines but by various regional lines. The Waterford Metropolitan Area Transport Strategy proposes the routing of 3 urban bus lines from city centre via Dunmore Road/ University Hospital to out-of-town locations to the east.

There are two bus stops in immediate vicinity of the Ardkeen Shopping Centre which can be directly accessed through pedestrian crossings. Bus traffic is characterised by frequent delays due to congestions on Dunmore Road.

Ardkeen Retail Park can be accessed by bus services at bus stops opposite Farronshoneen Park (both directions) and Tesco (northbound direction).

Active modes of transport

Dunmore Road as the main access road that connects Ardkeen Shopping Centre to its western and eastern neighbourhoods is characterised by narrow sidewalks, a partially missing (and narrow, where existent) cycle infrastructure, an absence of slow zones, and a lack of clarity around priority rules in and before roundabouts due to the presence of several ‘courtesy crossings’. This impacts significantly on safety for pedestrians, cyclists and motorists alike, as well as exposure to noise pollution. As a result, walking/ cycling is discouraged which limits Ardkeen Shopping Centre’s ability to carry out its role as part of a district centre. Access routes exist from Dunmore Road (4 access points, of which 2 are simultaneously access points for motorised vehicles. Access from direction Maypark Lane requires a 200m detour via a pedestrian crossing opposite The Cove Centre. Additional access routes from

Leoville and from Bromley Drive/ Outer Ring Road could improve integration of the centre with its western (Grange Upper) and south-eastern (Farronshoneen) neighbourhoods.

Ardkeen Retail Park and the Broadcast Centre are accessible by foot and bicycle through the two main road/ footpath access points at Outer Ring Road and Esken Drive. Additionally, there is a footpath connecting Outer Ring Road and Tesco, and two footpaths connecting The Broadcast Centre with Farronshoneen Park. Walkways within Ardkeen Retail Area are existent but characterised by narrow width that is further compromised by trees and parking cars protruding onto the walkways. An additional footpath from Ardkeen Village (between Appian Close and Elgon Walk) to the north-western edge of Tesco could reduce the walking distance between Waterford Shopping Centre (exit Bromley Way) to Tesco entrance from approximately 550m to approximately 300m and hence improve integration of both retail areas. The individual parts of the district centre provide few parking facilities for bicycles.

Recommendations

Derived from the status quo of district centre transport conditions, as well as taking into considerations recommendations relevant to city centre/ overall transport infrastructure as discussed in 4.3.1, below table contains the recommendations for Ardkeen District Centre.

Table 27 Recommendations - Ardkeen District Centre

	Recommendation	Priority
1	Review of Dunmore Road as a transport corridor within the overall Waterford Metropolitan Area road network and the reconcilability of private motorised transport, public transport, active modes of travel	Short Term
2	Enhanced space and safety for cyclists on Dunmore Road	Medium Term
3	Additional District Centre access points for pedestrians	Short Term
4	Installation of safe pedestrian crossings on key locations to facilitate pedestrian access with District Centre locations	Short Term

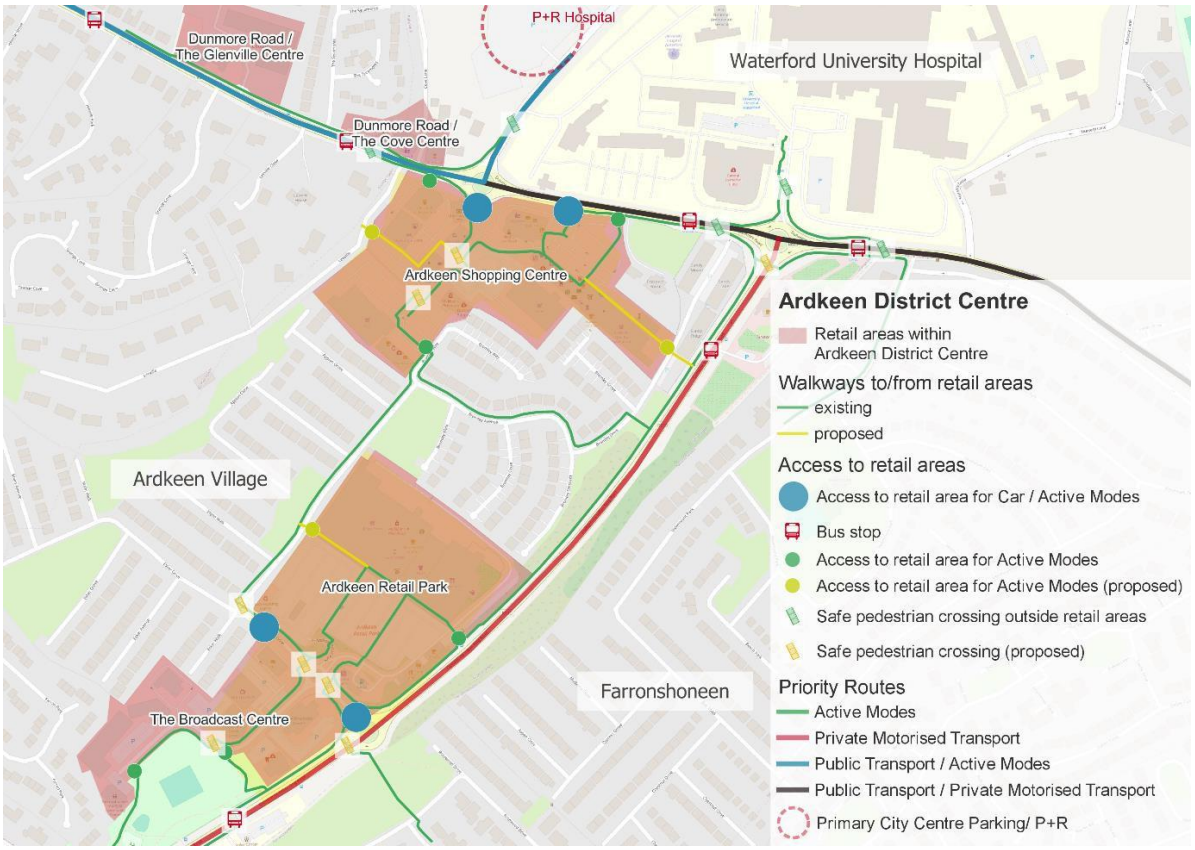


Figure 79: Proposed recommendations/actions for Ardkeen District Centre (Source: KPMG Future Analytics)

6.5.3 Kilbarry, Tramore Road, Inner Relief Road District Centre

Private motorised transport

Access routes to Kilbarry, Tramore Road, Inner Relief Road District Centre are primarily focused on motorised vehicles. Located along major arterial roads from city centre to the Outer Ring Road, as well as on the Inner Ring Road, the area can be accessed by car from most parts of Waterford and the wider region. All three major roads (Cork Road, Tramore Road, Inner Ring Road) are classified as Regional Roads (R) with speed limit 50 km/h. All three roads carry significant traffic, which leads to frequent congestion particularly during peak hours. As the District Centre is comprised of a number of independent retail areas, there is no single access point. All parts of the District Centre can avail of ample, spread-out surface parking that allow access to the individual buildings.

Public transport

The District Centre is connected to city centre, as well as Tramore, SETU Cork Road, Ballybeg, Lisduggan, Ballybricken through urban bus lines W1, W2, 360 and 360A. Bus stops served are located at Manor Street/ Waterford HSE (opposite administrative buildings) and Kilbarry SuperValu (south of Tramore Road Roundabout). Frequency of bus connection varies between 2 and 20 minutes on weekdays. The trajectory is one of the best-connected in Waterford. Manor Street bus stop in direction to city centre does not feature a shelter.

Active modes of transport

All three access roads have sidewalks on both sides of the road, a 120m long stretch at the northern end of Tramore Road being an exception. Safe pedestrian crossings exist on four locations on Cork Road, Tramore Road, Inner Ring Road west and east of Tramore Road roundabout. Two additional crossings exist in Cork Road south of Kingsmeadow Roundabout and on Tramore Road between Kilbarry Shopping Centre and Kingfisher Club. Additional crossings on Cork Road (near Government/ Administrative buildings and Morris's/ Certa) and Tramore Road (at end of sidewalk) are necessary to improve walkability between different parts of the district centre and adjacent residential areas.

The entire area is characterised by a partially missing (and narrow, where existent) cycle infrastructure, an absence of slow zones, and a lack of clarity around priority rules at entrance roads to business/ retail. This impacts significantly on safety for pedestrians, cyclists and motorists alike, and leads to exposure to noise pollution. As a result, walking/ cycling is discouraged which limits the area's ability to carry out its role as a district centre.

Additional footpaths/ cycle paths from Tramore Road Business Park (near Screwfix) to John's River and further to Riverwalk (road) Walk and from Manor Street (near Circle K) to John's River Walk would provide opportunities to integrate the area with residential areas to the east of John's River.

The individual parts of the district centre provide few parking facilities for bicycles.

Recommendations

Derived from the status quo of district centre transport conditions, as well as taking into considerations recommendations relevant to city centre/ overall transport infrastructure as discussed in 4.3.1, below table contains the recommendations for Kilbarry, Tramore Road, Inner Relief Road District Centre.

Table 28 Recommendations - Kilbarry, Tramore Road District Centre

	Recommendation	Priority
1	Review of Cork Road as a transport corridor within the overall Waterford Metropolitan Area road network and the reconcilability of private motorised transport, public transport, active modes of travel	Short Term
2	Enhanced space and safety for cyclists on Cork Road	Short Term

3	Examine opportunities for enhanced connectivity of District Centre with John's River Walk (additional crossings)	Long Term
4	Additional bus stop shelter at Manor Road bus stop (southbound)	Short Term
5	Marking of pedestrian crossings at access points to business estates	Medium Term

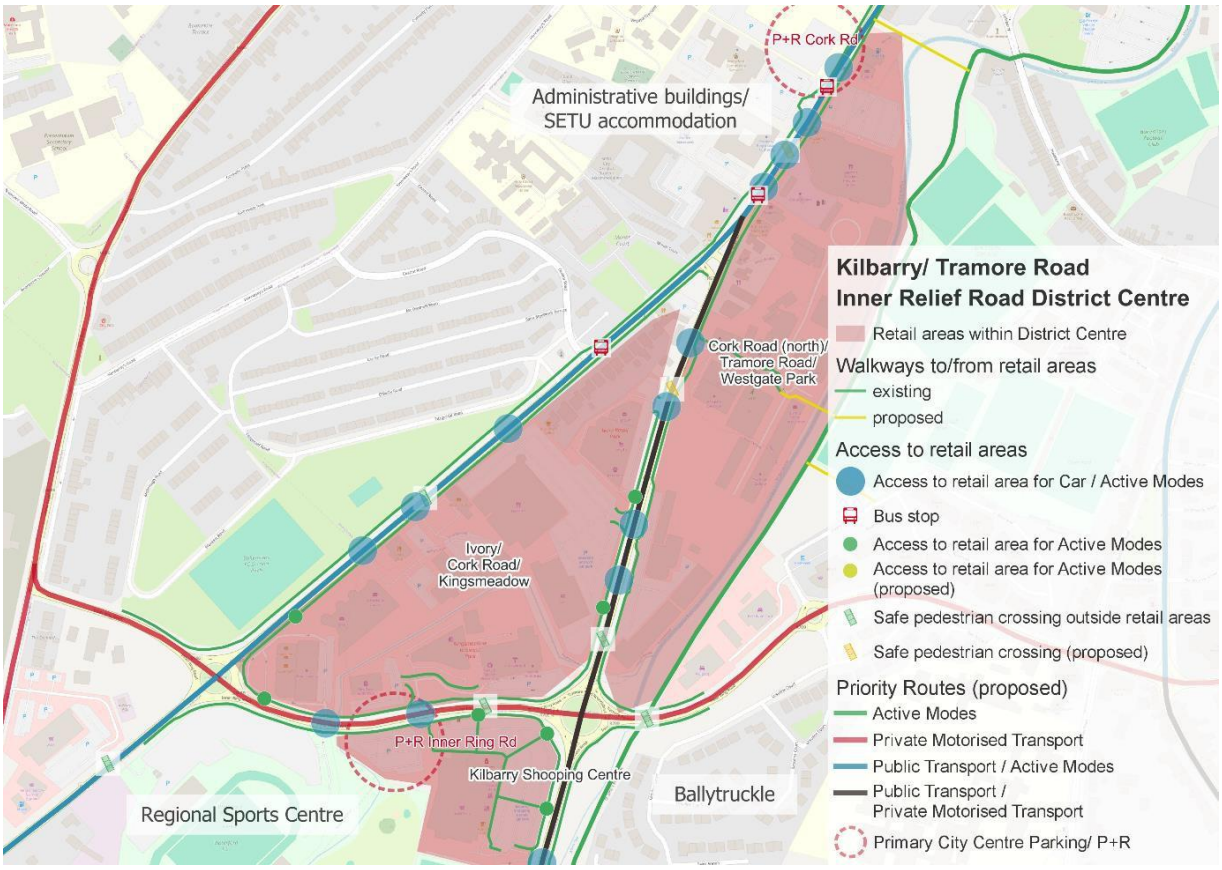


Figure 80: Proposed recommendations/actions for Kilbarry, Tramore Road, Inner Relief Road District Centre (Source: KPMG Future Analytics)

6.5.4 Waterford Shopping Centre Lisduggan District Centre

Private motorised transport

Primary access routes to Lisduggan District Centre are Paddy Browne's Road/ Tycor Road, Tyrone Road, and Church Road. Paddy Browne's Road/ Tycor Road is the primary connection between Lisduggan and City centre and Cork Road. It is classified as a speed limit of 50 km/h, speed breakers exist in various locations, leading to effectively reduced speed. Tyrone Road is a residential road that provides accessibility for the Lismore Park area. Car access to Waterford Shopping Centre Lisduggan is enabled through three access points. Both parts of the District Centre can avail of ample, spread-out surface parking that allow access to the individual buildings.

Public transport

The District Centre is connected to city centre, as well as Tramore, SETU Cork Road, Ballybeg, Lisduggan, Ballybricken through urban bus lines W1, W2, 360 and 360A. Bus stops served are located at Manor Street/ Waterford HSE (opposite administrative buildings) and Kilbarry SuperValu (south of Tramore Road Roundabout). Frequency of bus connection varies between 2 and 20 minutes on weekdays. The trajectory is one of the best-connected in Waterford. Manor Street bus stop in direction to city centre does not feature a shelter.

Active modes of transport

Paddy Browne's Road/ Tycor Road, Tyrone Road, and Church Road feature pedestrian walkways on both sides. The eastern footpath at Paddy Browne's Road/ Tycor Road is largely on access roads that are running parallel but separated from the main road by a stretch of greenery. Separate bike roads are not marked on any access road. Waterford Shopping Centre Lisduggan features several access points for combined car/ pedestrian and separate pedestrian access. Internal walkways and pedestrian crossings ensure largely safe walking from access roads to the centre. Tyrone Road Business Park (Lismore Park) does not feature separate walkway entrances. Neither part of the district centre provides parking facilities for bicycles.

Recommendations

Derived from the status quo of district centre transport conditions, as well as taking into considerations recommendations relevant to city centre/ overall transport infrastructure as discussed in 4.3.1, below table contains the recommendations for Lisduggan District Centre.

Table 29 *Recommendations* - Waterford Shopping Centre Lisduggan District Centre

	Recommendation	Priority
1	Improve access and safety for pedestrians in Tyrone Road retail area by marking of pedestrian pathways	Short Term
2	Enhanced space and safety for cyclists on Paddy Browne's Road/ Ticor Road: Consider Classification of side roads as cycle road (cycle priority road)	Short Term

Figure 81: Proposed recommendations/actions for Lisduggan District Centre (Source: KPMG Future Analytics)

7.0 Projected Retail Floorspace Requirements

7.1 Introduction

This Section summarises the quantitative assessment of retail floorspace requirements in the Study Area up to 2034 allowing for reasonable assumptions of change. The method adopted aligns with the Retail Planning Guidelines 2012 and conventions as utilised in other joint retail strategies to incorporate changing market dynamics.

The analysis herein considers emerging trends in the retail market (as discussed in Chapter 3), it develops estimates of future demand, consumer spending, turnover, and examines what the potential capacity for future floorspace may be across the MA having regard to existing floorspace and vacant stock. The retail floorspace assessment focuses on the examination of three types of retail:

1) *Convenience*;
2) *Comparison Non-Bulky* (referred to as 'comparison'); and
3) *Comparison Bulky* (referred to as 'bulky').

Consideration as to each type has been given in accordance with the descriptions set out in Annex 1 of the Retail Planning Guidelines.

The analysis reflects a changing population in line with the relevant projections set out for both Waterford and Kilkenny, as per each local authority's respective development plans, as well as the target figures included in the SRA RSES[33]. The base year for the assessment is 2022, unless otherwise specified and figures may include some rounding.

The estimated future floorspace requirements are intended to quantify the 'broad extent of requirement' as described in Retail Planning Guidelines. The figures derived from the modelling process are not intended to provide indicatives of anticipated future changes that are likely to impact on the future need for retail floorspace in the study area. Therefore, these figures should not be seen as prescriptive in nature or as a barrier to competition.

7.1.1 Methodological Approach

The following step-by-step methodology have been adopted in the assessment of existing and future retail floorspace capacity:

Step 1: Establish study area of assessment and utilise the agreed population forecasts in base, period and design years;

Step 2: Estimate the available expenditure per capita for each of the retail categories (convenience, comparison and bulky goods) at the base year and design year;

Step 3: Compile a projection of the total available expenditure in the base year and design year for residents to allow for assumed expenditure inflows and outflows;

Step 4: Undertake a projection of the anticipated change in available expenditure (accounting for identified inflows and outflows) which will support the provision of additional floorspace;

Step 5: Estimate the indicative turnover of existing floorspace in convenience, comparison and bulky goods;

Step 6: Estimate the representative turnover of existing floorspace in convenience, comparison and bulky goods;

[33] See section 7.2 for further information in this regard. Inter-year estimates reflect interpolations between set targets, and post target years reflect extrapolations based on a continuation of target-informed growth rates.

Step 7: Compile a breakdown of vacant floorspace and estimate the assumed retail allocation;

Step 8: Derive the residual surplus or shortfall between adjusted available expenditure and assumed future turnover;

Step 9: Summarise the capacity potential for additional floorspace across each of the three retail categories and account for vacancy.

7.1.2 Defining Study and Catchment Areas

The Metropolitan Area as defined within the SRA RSES has been adopted as the Study Area given the context and purpose of this joint-retail Study and thus retail requirements are reported in this Chapter at the MASP level. Significant analysis has been conducted in the SRA RSES on the functional properties of this boundary, and section 6.3.6 of this report illustrates the respective driving time extents that are at play between the City, Ferrybank and the MASP overall.

Recommendations for meeting future retail requirements at the sub-MASP level are provided in Chapter 8 which focus on the designated Tier 1 and Tier 2 (L2) centres in the MASP retail hierarchy as defined with the WCC CDP.

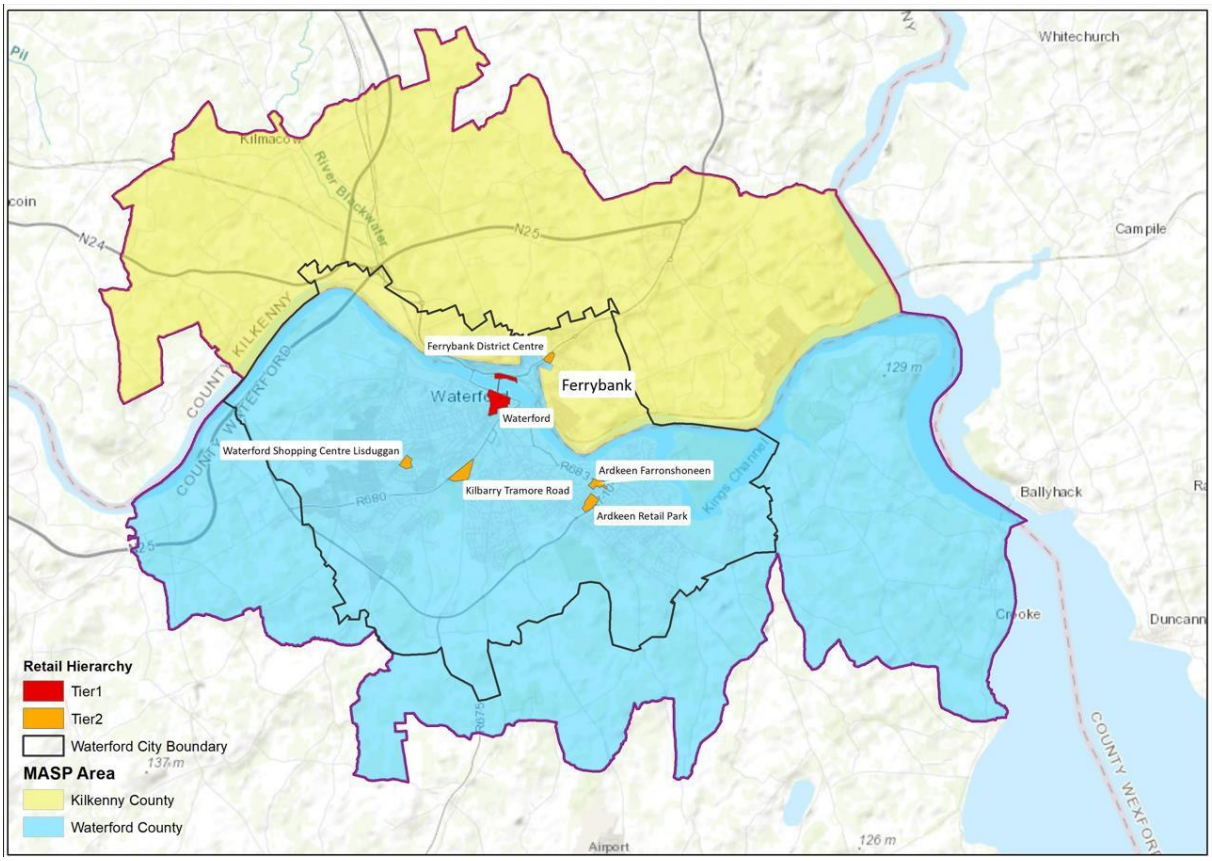


Figure 82: Study Area - Waterford Metropolitan Area, showing each local authority's share of same

The Metropolitan Area has also been adopted as the core retail catchment area for the purpose of calculating future retail requirements. However, it is recognised that Waterford MASP (Waterford City in particular) attracts spending from across the Region.

A secondary and tertiary retail catchment area for the Metropolitan Area has been defined based on the retail shopper survey results based on a 30-minute and 45-minute drive time catchment area respectively.

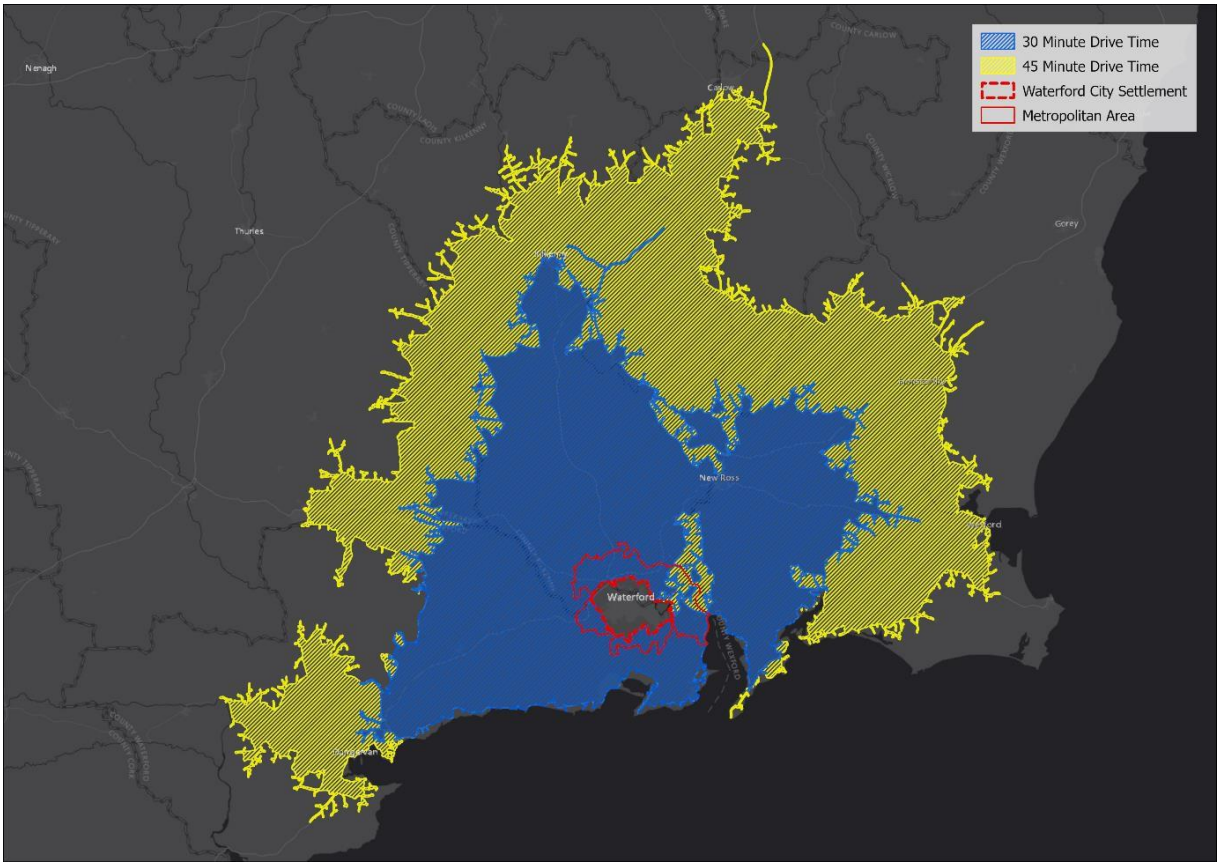


Figure 83: Catchment Areas: Primary Catchment Area (Waterford Metropolitan Area), Secondary Catchment Area (30-minute drive time catchment) and Tertiary Catchment Area (45-minute drive time catchment)

The secondary (30-minute) catchment area predominantly includes parts of Co. Waterford and Co. Kilkenny outside of the Metropolitan Area as well as areas in Co. Tipperary and Co. Wexford adjoining the boundaries of Co. Waterford/Co. Kilkenny. The population of the secondary catchment area as of 2022 was 111,131 based on 2022 Census data.

The tertiary (45-minute) catchment area extends to Co. Waterford and Co. Kilkenny outside of the Metropolitan Area, as well as parts of the adjoining authorities of Co. Tipperary, Co. Wexford and Co. Carlow. The 45-minute catchment extends out to Clonmel to the west, the southern edges of Carlow town to the north and Wexford town to the east. The population of the tertiary catchment area as of 2022 was 134,006 based on 2022 Census data.

Analysis of the shopper survey results by origin location found that 75.7% of respondents associated with a location in the MASP, 21.0% with a location within the 30-minute catchment and just 2.4% with a location within the 45-minute catchment. The remaining 1% of respondents associated with other locations beyond the defined catchment areas or did not state their location (n/a responses).

Table 30 Origin of Shopper Survey Responses by catchment area

Catchment Area	No.	%
Core Catchment (MASP)	1284	75.7%
Secondary (30-minute) catchment	357	21.0%
Tertiary (45-minute) catchment	40	2.4%
Other locations	15	0.9%
n/a	1	0.1%
Total	1,697	100.0%

The retail requirement calculations account for physical flows of retail expenditure from the secondary and tertiary retail catchment areas as detailed in Section 7.5 of this report.

7.2 Baseline figures

The catchment population for the period of assessment were adapted from several sources.

- Primarily, published MASP population figures were sourced from the SRA RSES were used which also reflect figures in both the WCC CDP (2022-2028) and the KCC CDP (2021-2027). These sources provided target figures for 2026, 2027 and 2031.
- Census 2022 data was taken for the study period baseline, although it is acknowledged that the preceding plan target figures themselves are based on earlier data.
- Given the need to model for each year between 2022 and 2034 (the selected design year), interim year figures for the MASP as well as sub areas were needed[34].

Table 31 Population in Catchment Area 2022-2024 (as adapted from Plan targets)

Population in Catchment Area 2022-2034 (as adapted from targets in the respective plans)						
	Area					
	MASP	WCC Share	KCC Share	MASP	WCC Share	KCC Share
Year	# absolute in-year population			% change on 2022		
2022	66,555	57,692	8,863	-	-	-
2023	68,532	59,403	9,130	3.0%	3.0%	3.0%
2024	70,510	61,114	9,396	5.9%	5.9%	6.0%
2025	72,487	62,824	9,663	8.9%	8.9%	9.0%
2026	74,464	64,535	9,929	11.9%	11.9%	12.0%
2027	75,925	65,397	10,529	14.1%	13.4%	18.8%
2028	77,386	66,258	11,128	16.3%	14.8%	25.6%
2029	78,847	67,837	11,010	18.5%	17.6%	24.2%
2030	80,308	69,416	10,892	20.7%	20.3%	22.9%
2031	81,769	70,995	10,774	22.9%	23.1%	21.6%
2032	83,230	72,574	10,656	25.1%	25.8%	20.2%
2033	84,691	74,153	10,538	27.2%	28.5%	18.9%
2034	86,152	75,732	10,420	29.4%	31.3%	17.6%

At time of writing, a review of the NPF is currently ongoing which has been informed by updated demographic and econometric modelling developed from the final Census 2022. The Updated Draft NPF Revision identifies an updated minimum population target for the Waterford City and Suburbs of +28,000 additional people from 2022-2040 and confirms that the SRA RSES will be reviewed to be consistent with the revised NPF population targets.

This chapter's retail analysis of quantitative requirements is closely linked with assumptions on population, and as they stand today the most recently published MASP population targets have been used. Given the primary source for estimating population growth in the MASP is the RSES it is

[34] Interim year figures were created by interpolation between 2022 and 2026, 2027 and 2028, and 2029 and 2031. Figures beyond 2031 were extrapolated based on the annualised rates of growth in preceding target years.

recommended that the retail floorspace requirements should only be revisited once the revised SRA RSES is published with population targets agreed by the Regional Assembly.

7.3 Per Capita Expenditure Estimates

To determine the available expenditure in the catchment area, data collected by the Central Statistics Office (CSO) is utilised. The data published provides gross estimates of expenditure in each of the relevant retail sectors (as set out in the Retail Planning Guidelines). The latest data is available as of October 2023 for the period to 2021[35] and reflects national scale reporting of turnover in relevant retail sectors.

Given the impact of COVID, and the fragmented nature of some data points for that period, it was decided on review of the available data from 2008 to 2021 to use the 2019 figures as reckonable latest available data for this study. Observed changes in the intervening years, such as inflation, would be mapped against this to bring it up to the 2022 starting baseline.

The following table shows the selected turnover aggregates related to the retail sectors specifically categorised as convenience, comparison, or bulky goods at State level[36].

Table 32 Determination of State Level Convenience and Comparison Retail Sales Turnover

(State) Determination of Convenience and Comparison Retail Sales Turnover			
Retail Goods (Note, 2019 used due to COVID effects)	**Turnover Excl. VAT (€'000) - 2019**	**VAT on Turnover (€'000) - 2019**	**Turnover Incl. VAT (€'000) - 2019**
Convenience Goods			
Convenience Goods Sales in Non-Specialised Stores[37]	€14,567,665	€2,348,467	€16,916,133
Convenience Goods Sales in Specialised Stores	€1,452,348	€350,181	€1,802,529
Total of Convenience Goods	**€16,020,013**	**€2,698,649**	**€18,718,662**
Retail Goods (Note, 2019 used due to COVID effects)	**Turnover Excl. VAT (€'000) - 2019**	**VAT on Turnover (€'000) - 2019**	**Turnover Incl. VAT (€'000) - 2019**
Comparison Goods			
Comparison Goods Sales in Non-Specialised Stores	€1,618,629	€260,941	€1,879,570

[35] Formerly the CSO published this under their Annual Sales Inquiry, but in more contemporary years, this is now available in their Enterprise Statistics on Distribution and Services or ANA13.

[36] A splitting of retail sales in non-specialised stores between convenience and comparison has been incorporated on the basis of an 85:15 split towards convenience. This was informed by further specific breakdowns of retail sales by the CSO, isolating Department Stores from convenience sales.

[37] A figure of 90% of retail sale in non-specialised stores was attributed to Convenience, and 10% for Comparison, in accordance with established practices.

Comparison Goods Sales in Specialised Stores	€16,928,593	€4,218,319	€21,146,912
Retail sale via stalls and markets	€78,820	€19,093	€97,913
Total of Comparison Goods	**€18,626,042**	**€4,498,353**	**€23,124,395**
Overall Total	**€34,646,055**	**€7,197,001**	**€41,843,056**

The data in Table 32 is only available at State-level, therefore a reduction in scale to fit the MASP itself was needed. In conventional practice this reduction or localisation can be achieved by using a suitable proxy. In this instance, the CSO's publication on 'County Disposable Incomes and Regional GDP' (published February 2024, reflecting the 2021 period) provides the supporting means to localise for both Waterford and Kilkenny. A blending of both areas to reflect the MASP was created to produce a single adjustment proxy for the state-scale figures.

In 2021, estimates for disposable incomes per person in Waterford (as a whole) were observed to be 23.8% lower than the State, with Kilkenny being more closely aligned at just 3.8% below the State. It should be recognised that Waterford comprises a larger urban population given the scale of the City and also that it is characteristically the case across Ireland that in the cities, the reckonable estimates of income available per person are generally lower for a variety of reasons. A blending of both in ratio produces a localised 'deflator' from State level of 0.9436.

Growth in retail sales informed by the CSO's retail statistics and inflation (HICP) are applied to the figures to bring them forward to 2022, and beyond. Future assumptions reflect forecasting published by a variety of sources including the Dept. of Finance, the EU Commission and the Central Bank of Ireland in this regard[38]. Accordingly, the derived per capita expenditure on convenience and comparison goods in the MASP has been estimated to be €3,878 and €4,791, respectively in 2022, increasing to €4,558 and €5,631 by 2034 (approx. a 17.5% anticipated increase over the period).

Table 33 Per Capita Expenditure Estimates on Convenience and Comparison Goods

Determination of Per Capita Expenditure on Convenience and Comparison Retail Goods					
Year	**Annual Growth Rate (%)**		**Per Capita Expenditure (€)**		**Inflation**
	Convenience	**Comparison**	**Convenience**	**Comparison**	**HICP**
2019	*Indexed at 94.36% of State*		€3,562	€4,401	-
2020	-4.90%	-4.90%	€3,388	€4,185	-0.1%
2021	5.80%	5.80%	€3,584	€4,428	1.5%
2022	**8.20%**	**8.20%**	**€3,878**	**€4,791**	**5.1%**
2023	0.50%	0.50%	€3,898	€4,815	4.4%
2024	2.10%	2.10%	€3,979	€4,916	3.0%
2025	2.50%	2.50%	€3,995	€4,936	2.1%
2026	**2.00%**	**2.00%**	**€4,007**	**€4,950**	**1.7%**
2027	**3.00%**	**3.00%**	**€4,047**	**€5,000**	**2.0%**
2028	**3.00%**	**3.00%**	**€4,088**	**€5,050**	**2.0%**
2029	3.00%	3.00%	€4,129	€5,100	2.0%

[38] Specifically, forecasted Modified Domestic Demand as per CBI has been used as a proxy for annualised change in incomes to 2026. From 2026 this is assumed to be 4% reoccurring. HICP post 2026 reflects the ECB's broad goal of 2% per annum.

2030	4.00%	4.00%	€4,211	€5,202	2.0%
2031	**4.00%**	**4.00%**	**€4,295**	**€5,306**	**2.0%**
2032	4.00%	4.00%	€4,381	€5,413	2.0%
2033	4.00%	4.00%	€4,469	€5,521	2.0%
2034	**4.00%**	**4.00%**	**€4,558**	**€5,631**	**2.0%**

7.4 Total Available Expenditure

The total available expenditure for each study area is calculated by multiplying the catchment population by the expenditure per capita and per retail category, for each year. However, data available from the CSO provides expenditure figures for convenience and comparison goods, without distinction between non-bulky and bulky. Given consideration of the CSO Household Budget Survey (2016), the Turnover Statistics and additional market sources, it is projected that approximately 80% of all expenditure on comparison goods is apportioned to non-bulky goods, with 20% going to bulky goods.

This proportionate split of expenditure on comparison goods is important to consider due to the significantly different levels of turnover generated by the sale of comparison goods such as clothing, footwear and smaller household durables, compared to that of bulky household goods (large appliances, furniture) sold in retail warehouses.

Table 34 Total Available Expenditure (Projected 2022 Prices)

Total Available Expenditure (2024-2034 at 2022 Prices)			
Year	**Convenience Total Available Expenditure (€)**	**Split of Comparison Total Available Expenditure - Non-Bulky Goods (€) (0.8%)**	**Split of Comparison Total Available Expenditure - Bulky Goods (€) (0.2%)**
2022	**258,107,959**	**255,086,196**	**63,771,549**
2023	267,104,843	263,977,749	65,994,437
2024	280,582,221	277,297,343	69,324,336
2025	289,604,199	286,213,698	71,553,424
2026	**298,396,360**	**294,902,926**	**73,725,731**
2027	**307,293,471**	**303,695,876**	**75,923,969**
2028	**316,338,686**	**312,635,194**	**78,158,799**
2029	325,534,075	321,722,929	80,430,732
2030	338,197,399	334,237,999	83,559,500
2031	**351,237,042**	**347,124,982**	**86,781,246**
2032	364,662,992	360,393,750	90,098,437
2033	378,485,485	374,054,418	93,513,605
2034	**392,715,012**	**388,117,355**	**97,029,339**

Figures in the above Table indicate a consistent anticipated growth in expenditure in convenience and comparison throughout the period.

Convenience expenditure is projected to increase by an estimated €134.6m from 2022 to 2034. In parallel expenditure in comparison goods is set to grow by almost €166.3m, split into €133m for non-bulky and €33.3m for bulky. As population is set to increase over the period, there is anticipated to be an overall combined increase of 52.2% in available expenditure.

7.5 Adjusted Expenditure

The total available expenditure requires adjusting in order to take into account localised spending inflows and outflows to and from the Study Area. The available expenditure has been adjusted to take account of physical inflows and outflows from the Study Area, online trading (inflows and outflows) and tourism spending (inflows).

7.5.1 Physical Flows

Rates of physical spending inflows and outflows, to and from the Study Area have been determined based on analysis of the 2023 retail survey as detailed in **Section 4.1** and examination of **h**istoric data, in particular the rates applied in the Waterford County and City Development Plan's Retail Strategy. A combination of results was then applied in the modelling to provide assumed rates of inflow and outflow per retail type shown in the below Table.

Table 35 Determined inflows and outflows (excl. online)

Determined Inflows and Outflows						
	Convenience		Comparison		Bulky	
Year	Outflow %	Inflow %	Outflow %	Inflow %	Outflow %	Inflow %
2019 - 2034	18.00%	68.83%	18.00%	65.95%	15.00%	46.20%

Outflow rates have been applied to account for the physical outflow of spending from the Waterford Metropolitan Area to other retail centres, also referred to as expenditure leakage. The outflow rates applied per retail category have been determined from analysis of the 2023 retail survey results as follows:

- Convenience spending retention rate of 82% in the Study Area resulting in an outflow rate of 18%.
- Comparison spending retention rate of 82% in the Study Area resulting in an outflow rate of 18%.
- Bulky comparison spending retention rate of 85% in the Study Area resulting in an outflow rate of 15%.

Inflow spending has been factored into the retail requirements assessment presented in this Chapter to account for the inflow of spending from the surrounding secondary (30-minute) and tertiary (45-minute) catchment areas.

In the table below, total retail spending per retail category has been calculated for the secondary (30-minute) catchment and tertiary (45-minute) catchment areas by applying average per capita retail spending to the total population in 2022. The 2022 population figures are from 2022 Census small area level population data. Inflow spending (€) in the base year (2022) has been calculated by applying the inflow rates to the total expenditure.

For the secondary (30-minute) catchment area, inflow rates have been applied from the shopper survey results (refer to Section 4.1.3). For the tertiary (45-minute) catchment area, an assumed inflow rate of 5% for both comparison and bulky comparison spending has been determined based on analysis of previous retail survey for Waterford City. An allowance has not been included for inflow convenience spending from this tertiary catchment based on analysis of previous retail survey for Waterford City since shoppers tend to undertake food shopping trips locally at their nearest food stores/retail centres.

Table 36 Determined inflow in base year (€) (2022) (excl. online)

	Population	Total Expenditure €	Inflow %	Inflow Expenditure €
Convenience				
30-min catchment	111,131	430,978,824	41%	177,649,955
Total				177,649,955
Comparison				
30-min catchment	111,131	425,933,199	33%	142,538,013
45-min catchment	134,006	513,606,503	5%	25,680,325
Total				168,218,338
Bulky Comparison				
30-min catchment	111,131	106,483,300	22%	23,041,096
45-min catchment	134,006	128,401,626	5%	6,420,081
Total				29,461,178

In the table below, inflow retail expenditure in the base year is presented as a proportion of the Study Area total retail expenditure per retail category. This represents a combined inflow rate for the 30-minute and 45-minute catchment areas for Comparison and Bulky Comparison spending.

Inflow retail spending is then factored into retail requirements calculations by applying an equivalent percentage uplift to the Study Area total retail expenditure per retail category in each output year from 2022-2034 as shown in the Adjusted Expenditure tables in Section 7.5.1.

Table 37 Determined inflow rate in base year (%) (2022) (excl. online)

	Inflow Expenditure €	Study Area Total Expenditure €	Inflow Expenditure Rate %
Convenience	177,649,955	258,107,959	68.83%
Comparison	168,218,338	255,086,196	65.95%
Bulky	29,461,178	63,771,549	46.20%

7.5.2 Online Flows

Consideration of online trading was also a factor in the determination of inflows and outflows. Regard has been given primarily to the availability of good data in this space, and regrettably, this is not yet an area with comprehensive and consistent reporting.

We have however reviewed the data collected by the CSO in respect to the turnover generated by online sales in selected retail sectors for Irish-domiciled businesses.

Figure 84 displays an historic overview of the pattern of turnover, including the high volatility and variation exhibited in recent years due to the influence of COVID.

Although this does not reflect a full market view, it is descriptive of a very dynamic environment towards sustained online expenditure in Ireland, including in areas previously exclusive to physical retail floorspace-based trading.

- Online has been considered as an inflow for convenience goods in this analysis due to the fact that the current operational model of the large online-enabled retailers in this space is centred around the 'picking' of goods in existing retail outlets for residential distribution.
- Online has been considered as an outflow for comparison goods in this analysis, both for non-bulky and bulky, given established trends in such retailers servicing same from warehouse infrastructure by and large.

Figure 2 Percentage of Turnover generated by Online Sales for selected Retail Sectors

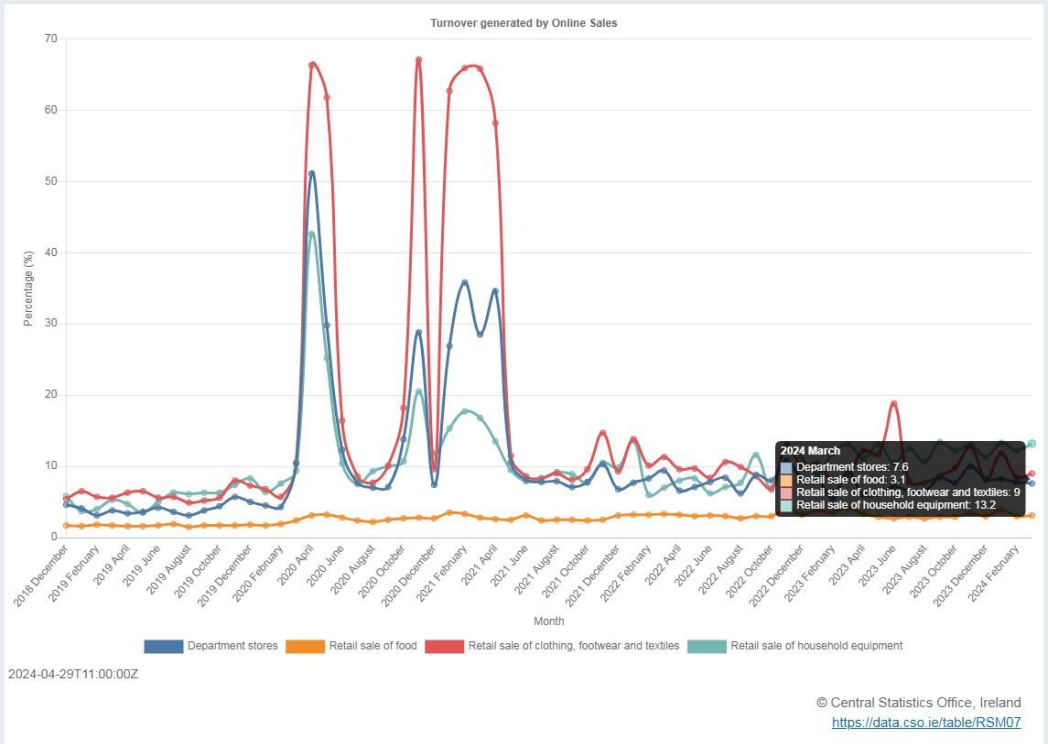


Figure 84: Share of turnover for Irish Businesses in selected retail (Source: CSO)

A combination of historic rates as available (though limited to the Irish perspective) and future assumptions of same has been brought into the analysis. Table 38 provides a view on the year-by-year nature of these figures, where the historic spans the 2019-2023 period, and the assumed extends beyond 2024.

Given the high variability in recent years, and the limited data available, future assumed rates were held static in consideration. This is a conservative estimation; however, it will allow for a more reasonable basis to 'add-in' future increases in online expenditure as reported through improved data over time.

Table 38 Determined inflows and outflows (online)

Determined Inflows and Outflows (Online) - Historic 2019-2023, Assumed from 2024						
	Convenience		Comparison		Bulky	
Year	Observed / Assumed	Assumed Inflow	Observed / Assumed	Assumed Outflow	Observed / Assumed	Assumed Outflow
2019	1.7%	-	9.8%	-	5.0%	-
2020	2.8%	-	28.7%	-	10.4%	-
2021	3.1%	-	16.7%	-	7.9%	-
2022	3.1%	3.1%	16.2%		6.2%	
2023	2.7%	2.7%	26.0%		10.5%	
2024	3.1% to Feb	3.1%	16.6% to Feb	10.0%	13.2% to Feb	5.0%
2025	-	3.1%	-	10.0%	-	5.0%
2026	-	3.1%	-	10.0%	-	5.0%
2027	-	3.1%	-	10.0%	-	5.0%

Determined Inflows and Outflows (Online) - Historic 2019-2023, Assumed from 2024						
2028	-	3.1%	-	10.0%	-	5.0%
2029	-	3.1%	-	10.0%	-	5.0%
2030	-	3.1%	-	10.0%	-	5.0%
2031	-	3.1%	-	10.0%	-	5.0%
2032	-	3.1%	-	10.0%	-	5.0%
2033	-	3.1%	-	10.0%	-	5.0%
2034	-	3.1%	-	10.0%	-	5.0%

7.5.3 Tourism Flows

Tourist expenditure is a significant component to Waterford, Kilkenny and the MASP's overall retail dynamic. Specific expenditure data from visitors is highly variable and ranges in consistency and granularity. Therefore, an analysis has been conducted of available data from trusted sources, to establish a reckonable estimation of visitor expenditure now, and into the future for the MASP area.

This analysis looked at reporting by Failte Ireland released between 2011 and 2023. The base figures used for both domestic and overseas visitors and expenditure are taken from their regional survey reports and key tourism profiles. The specific reference years used are: 2017, 2018, 2019 and where available 2022.

Importantly, Failte Ireland's own methodology has evolved during this time, so their reporting has been used indicatively only[39].

Table 39 provides a year-on-year outlook on the resulting estimated levels of tourist expenditure. In all cases, tourist expenditure is accounted for as an inflow.

[39] Assumptions have had to be made in order to develop expenditure estimates at county level (for use then in the JRS exercise) An example source publication is the October 2023 Failte Ireland Key tourism Facts publication for 2022. Assumptions have been made as to the proportion of visits and expenditure in each county across the south-east region, based on available regional reporting by Failte Ireland. An historic report on proportional share per county has been used; 2022 for domestic visitors and expenditure share, and 2017 for overseas. An assumed level of growth per annum to 2034 has been based on a conservative reflection of observed historic change in each category. The assumed domestic growth rates are - 3% per annum (lower than the 8.1% observed p.a. between 2017-2022) in visitor nos. and a 5% change per annum in expenditure (lower than the 10.1% change observed p.a. between 2017-2022). The assumed overseas growth rates are - 1% per annum (lower than the 5.6% observed p.a. between 2011-2017) in visitor nos. and a 5% change per annum in expenditure (lower than the 12.6% change observed p.a. between 2011-2017). Further assumptions are made in respect of the splitting of identified expenditure into either convenience or comparison. Further published information is being utilised here, from the 2019 overseas breakdowns published by Failte Ireland.

Table 39 Estimations of tourist expenditure in convenience and comparison

Tourist Spend: Convenience													
Estimates of future expenditure per area of MASP 2022-2034, in €													
Catchment Area	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
Waterford share of MASP	15,825,343	16,616,611	17,447,441	18,319,813	19,235,804	20,197,594	21,207,474	22,267,847	23,381,240	23,526,240	24,702,552	25,695,061	26,729,916
Kilkenny share of MASP	134,263	140,976	148,025	155,427	163,198	171,358	179,926	188,922	198,368	244,205	256,416	266,613	277,242
Total MASP Area	**15,959,607**	**16,757,587**	**17,595,466**	**18,475,240**	**19,399,002**	**20,368,952**	**21,387,399**	**22,456,769**	**23,579,608**	**23,770,445**	**24,958,968**	**25,961,674**	**27,007,158**

Tourist Spend: Comparison													
Estimates of future expenditure per area of MASP 2022-2034, in €													
Catchment Area	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
Waterford share of MASP	16,697,465	17,532,338	18,408,955	19,329,403	20,295,873	21,310,766	22,376,276	23,495,095	24,669,760	24,822,751	26,063,889	27,111,894	28,202,980
Kilkenny share of MASP	141,662	148,746	156,183	163,992	172,192	180,801	189,841	199,333	209,300	257,663	270,546	281,306	292,521
Total MASP Area	**16,839,127**	**17,681,084**	**18,565,138**	**19,493,395**	**20,468,064**	**21,491,468**	**22,566,041**	**23,694,343**	**24,879,060**	**25,080,415**	**26,334,436**	**27,392,400**	**28,495,500**

7.5.1 Adjusted Expenditure

Adjustments applied from the above inflows and outflows are then brought through into the adjustment of available expenditure. The inflows and outflows modulate the amount of expenditure available in the catchment area.

For the purpose of this assessment and for the duration of the Plan, the various flows are held fixed from their determination point.

The adjustments made to the total expenditure include a percentage increase for core inflow and a value increase for tourism spend, while decreases are applied for core outflow and outflow as a result of online shopping.

The tables below set out the inflows and outflows applied to the total available expenditure in each retail category to produce the adjusted total available expenditure used in the assessment of turnover. Tables 40, 41 and 42 below set out the adjusted total expenditure per annum, per retail category.

Table 40 Adjusted Total Available Expenditure - Convenience Goods

Adjusted Available Expenditure for Convenience Goods						
	Available Expenditure - Convenience Goods					
Year	Convenience Total Available Expenditure (€)	Convenience - Outflow (%)	Convenience - Inflow (%)	Online - Inflow (%)	Tourism Expenditure - Inflow (€)	Adjusted Convenience Total Available Expenditure (€)
2022	**258,107,959**	**18.00%**	**68.83%**	**3.10%**	**15,959,607**	**413,259,435**
2023	267,104,843	18.00%	68.83%	3.10%	16,757,587	427,906,117
2024	280,582,221	18.00%	68.83%	3.10%	17,595,466	449,489,424
2025	289,604,199	18.00%	68.83%	3.10%	18,475,240	464,256,527
2026	**298,396,360**	**18.00%**	**68.83%**	**3.10%**	**19,399,002**	**478,713,866**
2027	**307,293,471**	**18.00%**	**68.83%**	**3.10%**	**20,368,952**	**493,378,942**
2028	**316,338,686**	**18.00%**	**68.83%**	**3.10%**	**21,387,399**	**508,320,486**
2029	325,534,075	18.00%	68.83%	3.10%	22,456,769	523,544,114
2030	338,197,399	18.00%	68.83%	3.10%	23,579,608	544,159,324
2031	**351,237,042**	**18.00%**	**68.83%**	**3.10%**	**23,770,445**	**564,421,794**
2032	364,662,992	18.00%	68.83%	3.10%	24,958,968	586,276,581
2033	378,485,485	18.00%	68.83%	3.10%	25,961,674	608,555,943
2034	**392,715,012**	**18.00%**	**68.83%**	**3.10%**	**27,007,158**	**631,504,622**

Table 41 Adjusted Total Available Expenditure - Comparison Goods

Adjusted Available Expenditure for Comparison Non-Bulky Goods						
	Available Expenditure - Comparison Goods (Non-Bulky)					
Year	Comparison Total Available Expenditure (€)	Comparison - Outflow (%)	Comparison - Inflow (%)	Online - Outflow (%)	Tourism Expenditure Inflow (€)	Adjusted Comparison Total Available Expenditure (€)
2022	**255,086,196**	**18.00%**	**65.95%**	**16.20%**	**16,839,127**	**352,904,182**
2023	263,977,749	18.00%	65.95%	26.00%	17,681,084	339,590,557
2024	277,297,343	18.00%	65.95%	10.00%	18,565,138	401,084,856
2025	286,213,698	18.00%	65.95%	10.00%	19,493,395	414,312,839
2026	**294,902,926**	**18.00%**	**65.95%**	**10.00%**	**20,468,064**	**427,273,924**
2027	**303,695,876**	**18.00%**	**65.95%**	**10.00%**	**21,491,468**	**440,426,822**
2028	**312,635,194**	**18.00%**	**65.95%**	**10.00%**	**22,566,041**	**453,832,799**
2029	321,722,929	18.00%	65.95%	10.00%	23,694,343	467,497,240
2030	334,237,999	18.00%	65.95%	10.00%	24,879,060	485,945,956
2031	**347,124,982**	**18.00%**	**65.95%**	**10.00%**	**25,080,415**	**503,924,348**
2032	360,393,750	18.00%	65.95%	10.00%	26,334,436	523,482,061
2033	374,054,418	18.00%	65.95%	10.00%	28,495,500	544,487,428
2034	**388,117,355**	**18.00%**	**65.95%**	**10.00%**	**28,495,500**	**563,886,643**

Table 42 Adjusted Total Available Expenditure - Bulky Goods

Adjusted Available Expenditure for Comparison Bulky Goods					
	Available Expenditure - Comparison Goods (Bulky)				
Year	Bulky Total Available Expenditure (€)	Bulky - Outflow (%)	Bulky - Inflow (%)	Online - Outflow (%)	Adjusted Bulky Total Available Expenditure (€)
2022	**63,771,549**	**15.00%**	**46.20%**	**6.20%**	**79,713,158**
2023	65,994,437	15.00%	46.20%	10.50%	79,653,963
2024	69,324,336	15.00%	46.20%	5.00%	87,485,922
2025	71,553,424	15.00%	46.20%	5.00%	90,298,988
2026	**73,725,731**	**15.00%**	**46.20%**	**5.00%**	**93,040,395**
2027	**75,923,969**	**15.00%**	**46.20%**	**5.00%**	**95,814,527**
2028	**78,158,799**	**15.00%**	**46.20%**	**5.00%**	**98,634,837**
2029	80,430,732	15.00%	46.20%	5.00%	101,501,972
2030	83,559,500	15.00%	46.20%	5.00%	105,450,414
2031	**86,781,246**	**15.00%**	**46.20%**	**5.00%**	**109,516,193**
2032	90,098,437	15.00%	46.20%	5.00%	113,702,422
2033	93,513,605	15.00%	46.20%	5.00%	118,012,295
2034	**97,029,339**	**15.00%**	**46.20%**	**5.00%**	**122,449,081**

Following the consideration of spending flows, in 2034, it is estimated that the adjusted retail expenditure over the study period equates to:

- €449.5m for convenience goods in 2024 increasing to €631.5m by 2034.
- €401.1m for comparison goods in 2024 increasing to €563.9m by 2034.
- €87.5m for bulky goods in 2024 increasing to €122.4m by 2034.
- These are increases respectively of 40.5%, 40.6% and 40%.

7.6 Retail Floorspace Assessments

7.6.1 Existing Floorspace and Gross to Net Ratios

Existing retail floorspace across the MASP has been identified in aggregate following a hybrid review approach. Data sources for this review included the Geodirectory commercial address database as well as returns from the Valuations Office, in both cases, relevant retail trading for the purposes of this strategy was identified. Validation of retail addresses was conducted through a combination of on-site visits (in places, particularly within the Retail Core Area of Waterford City Centre), as well as collaborative review with both local authorities.

The majority of retail floorspace data produced was sourced on a net retail area basis however the following gross to net reduction was applied to gross retail floorspace data across the Study Area:

- Convenience Goods – 75:100 net to gross;
- Non-Bulky Comparison Goods – 75:100 net to gross;
- Bulky Comparison Goods – 85:100 net to gross.

Importantly, the function of incorporating the existing retail floorspace is not to determine an entirely accurate survey of premises, but to establish broad indicatives of retail trading by type and location. Naturally this picture evolves over time, and due to various reasons, the efficiency of retail area in a premises may also change. The review of existing retail floorspace is set out in the below Table.

Table 43 Total Retail Floorspace with Catchment Area

Existing Retail Floorspace (Net) sq.m. by Area				
Area	**Convenience**	**Comparison**	**Bulky**	**Total**
Metro	64,708	59,951	59,775	184,434
WCCC share of MASP	61,460	57,675	50,669	169,804
KCC share of MASP	3,248	2,276	9,106	14,630

Overall, there is 184,434sq.m. (net) of mixed retail floorspace across the MASP in 2024. It is naturally weighted more towards WCCC's share of the MASP spatially, with 169,804sq.m. located here, compared to 14,630sq.m. in the Kilkenny share of the MASP.

This can be further split by retail category, as per the table. Interestingly there is now approximately the same net area in both comparison and bulky trading across the MASP, predominantly in the Waterford share, although there is a significant portion also on the Kilkenny side.

7.6.2 Observed Vacant Floorspace

There will always be a level of vacancy in play, and this should be recognised when it comes to the potential need for future floorspace. Though wider commercial premises may be available, they may not be optimally located or constructed to support retail needs. Therefore, in conjunction with producing an estimate of vacancy across the MASP (again by reviewing address databases and local knowledge) we have sought to validate and consider the likely potential for re-use in order to avoid over-interpretation of large vacant properties that would not likely come forward for this purpose.

In considering vacancy with respect to future retail needs, it is important to have regard to the fact that not all vacant floorspace will be occupied by the retail categories of interest, even those located in optimal areas. Some of this floorspace will be occupied by retail services and other associated experiential outlets. The assessed centres by their nature include a wide mix of retail and non-retail uses and this point has been considered when assessing the potential utilisation of observable vacancy.

This study has assumed a conservative utilisation rate of 75% of total vacant floorspace to be allocated for future retail use. While this may appear to be high, it is applied to vacant floorspace that is more suitably sited for retail use in defined centres in Waterford MA, mostly within Waterford City Centre.

The only material vacancy observed on the Kilkenny side of the MASP was that of the Ferrybank Shopping Centre complex which comprises 5,710sqm gross vacant comparison and 4,136sqm gross vacant convenience floorspace. This has been wholly taken into account without reduction. A summary overview is set out below.

Table 44 Retail Floorspace Vacancy distribution and adjustment

Vacant Floorspace and Assumed Retail Allocation	
Vacant Floorspace Identified	**Sq. M (Gross)**
KCC Share of MASP (Gross)	9,846
WCC Share of MASP (Gross)	22,263
Total Vacant Floorspace (Gross)	**32,109**
Adjusted Vacant Floorspace	**Sq. M (Gross)**
Adj KCC Share of MASP (Ferrybank SC comprises total)	9,846
Adj WCC Share of MASP (Assuming a 75% Utilisation)	16,697
Adj Total Vacant Floorspace	**26,543**

A similar gross to net reduction was applied in respect of this reckonable vacant floorspace:

Table 45 Gross to Net reduction of Vacant Floorspace Identified, by area

Waterford: Assumed Distribution of Vacant Floorspace into Retail Categories (Including Gross to Net Reduction)				
Retail Category	**Assumed Distribution (Reflecting Current)**	**Allocated Gross Vacant**	**Gross to Net Reduction**	**Allocated Net Vacant**
	%	**Sq. M**	**Ratios**	**Sq. M**
Convenience	35.1%	5,858	0.75	4,394
Comparison - Non-Bulky	32.5%	5,428	0.75	4,071
Comparison - Bulky	32.4%	5,412	0.85	4,600
Assumed Retail Use Potential	**100.0%**	**16,697**	**-**	**13,064**

Kilkenny: Assumed Distribution of Vacant Floorspace into Retail Categories (Including Gross to Net Reduction)				
Retail Category	**Assumed Distribution (Reflecting Current)**	**Allocated Gross Vacant** ***(as per Ferrybank SC planning permission)***	**Gross to Net Reduction**	**Allocated Net Vacant**

	%	Sq. M	Ratios	Sq. M
Convenience	22.2%	4,136	0.75	3,102
Comparison - Non-Bulky	15.6%	5,710	0.75	4,283
Comparison - Bulky	62.2%	0	0.85	0
Assumed Retail Use Potential	**100.0%**	**9,846**	**-**	**7,385**

Net Vacant Floorspace and Assumed Retail Allocation				
Area	**Convenience**	**Comparison**	**Bulky**	**Total**
KCC Share of MASP	3,102	4,283	0	7,385
WCC Share of MASP	4,394	4,071	4,600	13,064
Total	**7,496**	**8,353**	**4,600**	**20,449**
Area	**Convenience**	**Comparison**	**Bulky**	**Total**
KCC Share of MASP	41%	51%	0%	36%
WCC Share of MASP	59%	49%	100%	64%
Total	**100%**	**100%**	**100%**	**100%**

7.7 Indicate Existing Turnover

The indicative existing turnover provides an estimate of the current turnover generated by the existing retail floorspace per category, based on the adjusted available spend. This indicative turnover is calculated by dividing the adjusted available expenditure by the existing floorspace, for each retail category.

Table 46 Gross Indicative Turnover Generated by Existing Retail Floorspace

Existing Retail Floorspace and Indicative Retail Turnover				
Retail Goods Types	**In 2024 Net Floor Area (SQ.M.)**	**Net Area as a % of Total Net Area**	**Adjusted Total Available Expenditure (€)**	**Indicative Turnover Per SQ.M. (€)**
Convenience	64,708	35.1%	€449,489,424	€6,946.43
Comparison - Non-Bulky	59,951	32.5%	€401,084,856	€6,690.21
Comparison - Bulky	59,775	32.4%	€87,485,922	€1,463.59
Overall Total	**184,434**	**100.0%**	**€938,060,202**	**-**

The figures in the table above indicate that retail trade in the three main categories is generally healthy for a centre of its size *within the region*. However, in comparison with other regional cities across Ireland the Waterford MASP would appear to have some ground to cover in terms of convenience turnover, as other centres would generally trade at a higher level. Comparison and comparison bulky both compare well otherwise (accounting for scale). The indicative turnovers are purely indicators and do mask differences in the types and scale of retail facilities available and the specific nature of goods sold therein.

Generally, larger purpose-built retail centres or retail facilities in prime locations within shopping nodes can distort figures at low levels. As such, shops in prime locations will have proportionately higher turnover per sq.m than stores located in less frequented or lower traffic centres or locations. The prominence of brand and market share also have influences on trading levels. Independent retailers' indicative turnovers are usually significantly lower than larger supermarkets or chains, with the latter having the capacity to trade at high volumes, even at lower profit margins, to control market share over an extended period.

7.8 Representative Existing Turnover

Since it is unlikely that all retail facilities will trade equally, the indicative turnover figures presented in Section 7.7 above should not apply to all retail floor space. To moderate turnover figures and to be mindful of any over/under trading, convention sees a representative turnover applied instead to the existing floorspace.

The representative turnover is aimed to reflect the idealised performance in each retail category and be representative of comparative areas in other counties. In some cases, indicative turnover rates are adjusted down to the representative rate, while in other cases the indicative turnover is adjusted upward. A summary of the adjustments as applied here are presented below.

- As the convenience indicative turnover per m² is potentially an outlier, it has been adjusted upward to a representative figure of €8,000 per m².
- Indicative comparison and bulky goods turnovers have been moderated slightly to the representative figures of €5,000/m² and €2,000 per m² respectively.

Table 47 Representative Turnover of Existing Retail Floorspace

Representative Turnover of Existing Retail Floorspace		
Retail Goods Types	**Representative Turnover Per SQ.M. (€)**	**Representative Turnover of Existing Retail (€)**
Convenience	€8,000.00	€517,664,000
Comparison - Non-Bulky	€6,000.00	€359,706,000
Comparison - Bulky	€2,000.00	€119,550,000
Overall Total	**-**	**€996,920,000**

Assuming a representative turnover in excess of the indicative can illustrate a need for existing retailers (specifically in convenience) to become more efficient in their floorspace utilisation, trading of products and value enticements initiatives to customers.

7.9 Assumed Future Turnover

In order to calculate the requirements for additional retail floorspace it is important to factor in the turnover per sq.m of future retail floorspace. Where new floorspace is developed/constructed/adapted, it is usually done so at the most efficient levels possible for the time. As a result, it would be anticipated that a higher net turnover per sq meter is achievable with such newer stock, and so assumed rates for future turnover are set out for use in understanding how any identified residual in unmet expenditure within the population would be 'taken up', as it were.

For the purpose of this assessment, the representative turnover rates for each retail category have been used for the future floorspace assessment – with *no assumed change* across the Plan period. The assumed future turnovers used are presented in Table 48.

Table 48 Assumed Future Turnovers

Assumed Future Turnover of Retail Floorspace	
Retail Goods Types	**Future Turnover Per SQ.M. (€)**
Convenience	€12,000.00
Comparison - Non-Bulky	€7,500.00
Comparison - Bulky	€2,500.00

These values reflect a more competitive and efficient level of trading in convenience goods by comparison to existing, as well as slight increases in comparison, with a greater level of change seen in bulky goods specifically.

7.10 Residual Capacity

The future retail floorspace requirements are calculated using the various inputs as outlined in the preceding sections.

Analysis and modelling of the inputs provide the "residual capacity" potential in expenditure, which subsequently informs the minimum additional floorspace requirements over the lifetime of the retail strategy.

The residual capacity of retail floorspace is identified through the calculation of a surplus or deficit, which is the difference between the adjusted available expenditure and the representative turnover total that can be generated from the existing floorspace in each category. In other words, it is the amount of disposable income attributed to retail that remains unspent by the populace due to insufficient floorspace (trading at a given turnover per sq. m basis).

- Therefore, a positive difference in figures suggests a 'surplus' of expenditure, which represents potential capacity for new floorspace to capture the available expenditure.

- In turn, a negative difference suggests a 'shortfall' in expenditure, which would not promote the development of additional floorspace until the expenditure returns to a surplus.
- A negative difference could also suggest an over-supply of retail floorspace in the relevant retail category, or an unhealthy trading turnover ratio of the existing floorspace.

The residual surplus/shortfall for additional retail floorspace area has been obtained by subtracting the representative turnover totals of existing convenience, comparison and bulky goods expenditure, as set out in Table *47*, by the adjusted total available expenditure (per type of retail category) as set out in Table 40 (convenience), Table 41 (comparison non bulky) and Table 42 (comparison bulky) respectively.

This is summarised in the tables below unadjusted by vacant floorspace first in Section 7.14 and then adjusted for vacancy in Section 7.15.

7.11 Unadjusted: Convenience

The Table below sets out the residual capacity of convenience retailing. From the table it is seen that a residual surplus has developed first in 2029 (marginal at 490 sq.m.) and is projected to grow further throughout the period of assessment. The adjusted total available expenditure creates a basis that would motivate an increase in the provision of convenience goods floorspace notwithstanding consideration of vacancy and pipeline supply. The projected growth in expenditure translates to a surplus of €113.8m in 2034, which would support an additional 9,487 m² (unadjusted) of retail floorspace by the end of the period.

Table 49 Expenditure Available for New Retail - Comparison Goods (Residual and Floorspace Capacity)

Expenditure Available for New Retail (Residual and Floorspace Capacity)						
			Convenience Goods			
		Expenditure Residual			**Floorspace Capacity**	
Year	**Adjusted Total Available Expenditure (€)**	**Representative Turnover per sq. m (€)**	**Representative Turnover Total of Existing Floorspace (€)**	**Residual Surplus/Shortfall (€)**	**Assumed Future Turnover per sq. m (€)**	**Additional Floorspace Reqs. (Cumulative, sq.m.)**
2022	413,259,435	8,000	517,664,000	-104,404,565	12,000	-8,700
2023	427,906,117	8,000	517,664,000	-89,757,883	12,000	-7,480
2024	449,489,424	8,000	517,664,000	-68,174,576	12,000	-5,681
2025	464,256,527	8,000	517,664,000	-53,407,473	12,000	-4,451
2026	478,713,866	8,000	517,664,000	-38,950,134	12,000	-3,246
2027	493,378,942	8,000	517,664,000	-24,285,058	12,000	-2,024
2028	508,320,486	8,000	517,664,000	-9,343,514	12,000	-779
2029	523,544,114	8,000	517,664,000	5,880,114	12,000	490
2030	544,159,324	8,000	517,664,000	26,495,324	12,000	2,208
2031	564,421,794	8,000	517,664,000	46,757,794	12,000	3,896
2032	586,276,581	8,000	517,664,000	68,612,581	12,000	5,718
2033	608,555,943	8,000	517,664,000	90,891,943	12,000	7,574
2034	631,504,622	8,000	517,664,000	113,840,622	12,000	9,487

7.12 Unadjusted: Comparison

The table below sets out the residual capacity of comparison retailing. From the table it is seen that a substantial residual surplus has first developed in 2024 at 5,517sq.m. and is projected to grow further throughout the period of assessment at roughly 2,000 sq.m. per annum). The projected growth in expenditure translates to a surplus of €204.2m in 2034, which would support an additional 27,224m² (unadjusted) of comparison retail floorspace by the end of the period before vacancy and pipeline supply is accounted for.

Table 50 Expenditure Available for New Retail - Comparison Goods (Residual and Floorspace Capacity)

Expenditure Available for New Retail (Residual and Floorspace Capacity)						
		Comparison Goods				
		Expenditure Residual			Floorspace Capacity	
Year	Adjusted Total Available Expenditure (€)	Representative Turnover per sq. m (€)	Representative Turnover Total of Existing Floorspace (€)	Residual Surplus/Shortfall (€)	Assumed Future Turnover per sq. m (€)	Additional Floorspace Reqs. (Cumulative, sq.m.)
2022	352,904,182	6,000	359,706,000	-6,801,818	7,500	-907
2023	339,590,557	6,000	359,706,000	-20,115,443	7,500	-2,682
2024	401,084,856	6,000	359,706,000	41,378,856	7,500	5,517
2025	414,312,839	6,000	359,706,000	54,606,839	7,500	7,281
2026	427,273,924	6,000	359,706,000	67,567,924	7,500	9,009
2027	440,426,822	6,000	359,706,000	80,720,822	7,500	10,763
2028	453,832,799	6,000	359,706,000	94,126,799	7,500	12,550
2029	467,497,240	6,000	359,706,000	107,791,240	7,500	14,372
2030	485,945,956	6,000	359,706,000	126,239,956	7,500	16,832
2031	503,924,348	6,000	359,706,000	144,218,348	7,500	19,229
2032	523,482,061	6,000	359,706,000	163,776,061	7,500	21,837
2033	544,487,428	6,000	359,706,000	184,781,428	7,500	24,638
2034	563,886,643	6,000	359,706,000	204,180,643	7,500	27,224

7.13 Unadjusted: Bulky Comparison

The table below sets out the residual capacity of bulky comparison retailing. Expenditure on bulky goods is set to increase however, the turnover of existing retail floorspace would seem to be outpacing this growth for most of the study period, and as a result a sizable residual shortfall is observed up to 2033. A small surplus of 1,160sq.m. emerges at the end of the study period in 2034 however these figured do not factor in vacancy and potential pipeline supply which is further considered in Section 7.15.

Table 51 Expenditure Available for New Retail - Bulky Goods (Residual and Floorspace Capacity)

Expenditure Available for New Retail (Residual and Floorspace Capacity)						
		Comparison Bulky Goods				
		Expenditure Residual			Floorspace Capacity	
Year	Adjusted Total Available Expenditure (€)	Representative Turnover per sq. m (€)	Representative Turnover Total of Existing Floorspace (€)	Residual Surplus/Shortfall (€)	Assumed Future Turnover per sq. m (€)	Additional Floorspace Reqs. (Cumulative, sq.m.)
2022	79,713,158	2,000	119,550,000	-39,836,842	2,500	-15,935
2023	79,653,963	2,000	119,550,000	-39,896,037	2,500	-15,958
2024	87,485,922	2,000	119,550,000	-32,064,078	2,500	-12,826
2025	90,298,988	2,000	119,550,000	-29,251,012	2,500	-11,700
2026	93,040,395	2,000	119,550,000	-26,509,605	2,500	-10,604
2027	95,814,527	2,000	119,550,000	-23,735,473	2,500	-9,494
2028	98,634,837	2,000	119,550,000	-20,915,163	2,500	-8,366
2029	101,501,972	2,000	119,550,000	-18,048,028	2,500	-7,219
2030	105,450,414	2,000	119,550,000	-14,099,586	2,500	-5,640
2031	109,516,193	2,000	119,550,000	-10,033,807	2,500	-4,014
2032	113,702,422	2,000	119,550,000	-5,847,578	2,500	-2,339
2033	118,012,295	2,000	119,550,000	-1,537,705	2,500	-615
2034	122,449,081	2,000	119,550,000	2,899,081	2,500	1,160

7.14 Requirements – Unadjusted for Vacancy

Based on the application of the assumed future turnover rates, the residual in expenditure across each retail category has been set out in the preceding tables. By dividing this residual by the assumed future turnover rate, the resulting future floorspace requirements can be determined in square meters. A summary of these unadjusted retail floorspace requirement by category is set out in Table 52.

It should be noted that the figures do not factor in the extent of vacant floorspace currently observed (detailed in Section 7.6.2) or consented “pipeline” supply, i.e., retail applications which have already been permitted but not constructed at the time of the preparation of the retail strategy. The extent of unimplemented floorspace is discussed in Section 7.16.

Table 52 Future Retail Floorspace Potential (Cumulative)

Indicative Future Retail Floorspace Potential (Cumulative)						
Retail Goods Type	**Requirements in sq. m at key years**					
	2024	**2026**	**2027**	**2028**	**2031**	**2034**
Convenience Goods	-5,681	-3,246	-2,024	-779	3,896	9,487
Comparison Goods (Non-Bulky)	5,517	9,009	10,763	12,550	19,229	27,224
Comparison Goods (Bulky)	-12,826	-10,604	-9,494	-8,366	-4,014	1,160
Total Retail Floorspace Potential	***-12,990***	***-4,841***	***-755***	***3,406***	***19,112***	***37,870***

The resulting figures indicate that unadjusted for vacancy, the MASP has:

- A residual capacity of 9,487sq.m for additional convenience floorspace by 2034.
- A residual capacity for additional comparison floorspace is immediately observed in 2024 of 5,517sq.m, increasing over the period to 27,224sq.m by 2034.
- A limited residual capacity of 1,160sq.m for further comparison bulky up to 2034.

7.15 Requirements – Adjusted for Vacancy

The retail floorspace requirements presented in Table 52 have been adjusted to take account of the mitigating effect of the utilisation of vacant commercial floorspace on the requirement for new floorspace over the study period. Table 53 presents the final retail requirements adjusted for vacancy for the Waterford MA for key output years.

It should be noted that while the figures now account for vacant floorspace, they do not include "pipeline supply". The extent of unimplemented granted retail floorspace ('retail commitments') is discussed in Section 7.16 but is not directly included. The resulting figures indicate that adjusted for vacancy, the MASP has:

- A moderate residual capacity of 1,991sq.m for additional convenience floorspace emerges at the end of the study period in 2034.
- A residual capacity for additional comparison floorspace first emerges in 2026 (656sq.m), increasing to 18,871sq.m by 2034.
- No residual capacity for additional comparison bulky floorspace up to 2034.

Table 53 Future Retail Floorspace Potential (Cumulative) - Adjusted for Vacancy

Indicative Future Retail Floorspace Potential (Cumulative) - Adjusted for Vacancy						
Retail Goods Type	**Requirements in sq. m at key years**					
	2024	**2026**	**2027**	**2028**	**2031**	**2034**
Convenience Goods	-13,177	-10,741	-9,519	-8,274	-3,599	1,991
Comparison Goods (Non-Bulky)	-2,836	656	2,410	4,197	10,876	18,871
Comparison Goods (Bulky)	-17,425	-15,204	-14,094	-12,966	-8,613	-3,440
Total Retail Floorspace Potential	***-33,438***	***-25,289***	***-21,204***	***-17,043***	***-1,337***	***17,422***

7.16 Retail Commitments

The tables in the previous sections do not account for "Retail Commitments", i.e., extant retail permissions which have been granted but not yet built out or trading at the time of the preparation of the Retail Strategy.

Table 54 Total Floorspace of Retail Commitments

Retail Commitments							
Site / Ref.	**Decision**	**Convenience**		**Compar. Non-bulky**		**Compar. Bulky**	
		sqm gross	**sqm net**	**sqm gross**	**sqm net**	**sqm gross**	**sqm net**
Waterford Retail Park, Cork Road (Pl. Ref. 22936 ABP ref. 315633-23)	Granted	0	0	450	338	8,697	7,392
North Quays SDZ (Pl. Ref. 2460304[40])	Granted	0	0	3,940	2,955	0	0
Knockboy Neighbourhood Centre (Pl. Ref. 22571)	Granted	923	692	149	112	0	0
Total	-	**923**	**692**	**4,539**	**3,404**	**8,697**	**7,392**

An exercise was undertaken to identify and review planning applications which had been granted and were still within their permitted period of duration (with or without activity, as indicated by any associated commencement notices). A threshold of 500sq.m. (gross) was applied in this search to identify retail schemes which would make a meaningful contribution towards meeting the future retail needs of the Study Area. A cut-off date of July 4th 2024 was used when undertaking this review of planning permissions. The details include applications that were granted and pending as of this date. The extent of this unimplemented floorspace is summarised below. Table 54 identifies applications that have been granted permission with floorspace totalling:

[40] Planning application ref. 2460304 Waterford North Quays states that Phase 2 will include 5,550 sqm comparison retail and Phase 3 will include 8,200sqm comparison retail. Future phases 2-3 to include a total of 13,750 sqm comparison retail.

- 692sq.m. (net) in convenience (assuming a 75% gross to net)
- 449sq.m. (net) comparison (assuming a 75% gross to net), and
- 7,392sq.m. (net) comparison bulky (net figures, assuming 85% gross to net)

WCCC recently decided to grant planning permission for a revised Waterford North Quays application featuring an estimated 2,955sq.m. comparison as part of a phase 1 scheme. It is noted in the planning application documents that a phase 2 scheme would indicatively comprise a further 5,550sq.m. (gross) comparison floorspace and a phase 3, indicatively a further 8,200sq.m. (gross) comparison floorspace.

Overall, the Waterford North Quays scheme has the potential to deliver 17,690 sq.m. comparison floorspace over three phases of development which, if delivered, would significantly increase the supply of new modern comparison floorspace in the city. However, the delivery timeframe of the overall development is expected to be beyond the timeframe of this Study. It may therefore reasonably be assumed that Phase 1 and 2 only (8,505sq.m.) may be delivered within the timeframe of this Study to 2034 subject to planning.

Whereas identified vacant floorspace presents the most immediate solution to meet future floorspace requirements, pipeline supply may also be considered, albeit, with less certainty, as it is subject to a range of external factors, which may delay or prevent it from being fully realised within the lifetime of the Joint Retail Strategy.

These committed schemes, if delivered, would have an impact on the identified requirements set out in Sections 7.14 and 7.15 in terms of reducing the residual comparison and convenience floorspace requirement and deepening the surplus of comparison bulky floorspace in the Study Area.

Given the uncertainty around the delivery of proposed and consented retail floorspace it is not considered appropriate to directly account for their delivery in the quantitative retail requirements in this Strategy. However, consideration of these applications shall be made in context of the requirements set out in Section 7.22 of this report (having adjusted for vacancy).

7.17 Final Retail Floorspace Requirements

The summary of future floorspace potential in the MASP is set out in Table 53 which accounts for vacancy. This Strategy recommends focusing on the vacancy adjusted floorspace requirements since the utilisation of vacant commercial floorspace represents the most sustainable way of meeting retail requirements. This approach is consistent with National compact growth policy objectives which seek to reduce vacancy and dereliction in Ireland's town centres and regional and local planning policy objectives which promote the regeneration and consolidation of Waterford City Centre.

It describes a situation where after the inclusion of identified vacancy, there is effectively no demand for additional comparison bulky floorspace which is not surprising considering the extent of existing bulky retail development within the Study Area. There is a requirement for a moderate amount of additional convenience floorspace (1,991sq.m) at the end of the study period in 2034. There is also a requirement for additional comparison floorspace which first emerges in 2026 (656sq.m), increasing to 10,876sq.m net by 2031 and 18,871sq.m net by 2034.

The retail floorspace requirements reflect anticipated changes in the population through Development Plan, RSES and ultimately NPF targets. As previously noted, should these targets be reviewed, adjustment should be made accordingly to the retail requirements, as increases in population will directly increase available expenditure.

Further to above, the retail floorspace requirements presented in this Section should be considered as indicative targets required to meet the needs of the existing and future population in the study area rather than maximum thresholds. As such, the retail floorspace requirements presented in Table 53 should be treated as minimum rather than maximum figures. In terms of this Strategy, the location of new retail floorspace is more critical than the overall the amount. Section 8 of this report provides recommendations on the location and scale of new retail development in the Study Area. While pipeline retail floorspace has not been directly accounted for in calculating the retail floorspace requirements it should also be considered in terms of meeting the retail needs of the Study Area. Section 7.16 identifies committed retail floorspace totalling 692sq.m. net convenience, 449sq.m. net comparison and 7,392sq.m. net comparison bulky floorspace which may be delivered over the next five years within the timeframe of this Study. In addition, planning permission is currently being sought for an additional 3,940sq.m gross comparison floorspace in Phase 1 of the Waterford North Quays which, if granted, may also be delivered in the timeframe of this Study. The subsequent phase of the Waterford North Quays development may, if granted, provide for an additional 5,550sq.m gross comparison floorspace in Phase 2. Any future updates to this Study should consider Phase 3 of the Waterford North Quays which may comprise up to a further 8,200sq.m gross comparison floorspace.

8.0 Recommendations

This section provides guidance on the location and scale of retail development to meet the projected retail floorspace requirements detailed in Chapter 7. This section also sets out a series of key actions to support and develop the primacy of Waterford City Centre for retail uses by creating the appropriate conditions to foster a healthy and vibrant retail environment in the City Centre.

In support of the implementation of the 10-minute neighbourhood concept this Study provides recommendations to enhance sustainable travel routes to and from designated retail centres in the MASP retail hierarchy.

8.1 Retail Strategy

This section provides guidance on the location and scale of retail development to meet the projected retail floorspace requirements (detailed in Chapter 7) in a manner which supports the respective retail functions of the City Centre and district centres in line with the established retail hierarchy.

8.1.1 Convenience Retail Requirement

Chapter 7 of this Study identifies a requirement for 1,991sq.m net additional convenience floorspace by 2034 after the inclusion of identified vacancy. The vacancy-adjusted convenience retail requirements (Section 7.15) allows for the utilisation of vacant commercial floorspace in areas such as the existing Ferrybank Shopping Centre and in Waterford City Centre, particularly within and immediately adjacent to the existing Retail Core Area.

In terms of allocating convenience floorspace requirements at the sub-MASP level, this Study proposes that retail requirements will be met through a combination of the following:

1. Utilisation of vacant commercial floorspace could provide up to 7,496sq.m net floorspace.
2. Implementation of extant retail permissions could provide up to 692sq.m net floorspace.
3. Development of new retail floorspace in existing Tier 1, Tier 2 (L2) and Tier 4 centres.
4. Development of new neighbourhood centres in strategic housing growth locations in WCCC (City North West Neighbourhood (Carrickphierish and Gracedieu), Ballytruckle/Kilcohan Neighbourhood)
5. Development of a new neighbourhood centre at Rockshire Road/Newrath Road in KCC alongside strategic housing development.

Utilisation of vacant commercial floorspace represents the most sustainable way of meeting retail requirements. This includes the re-occupation of existing commercial units as is or the conversion, subdivision, or amalgamation of existing units to meet retailers' requirements. As stated in Section 7.6.2 of this report, identified vacant floorspace is located in defined centres in Waterford MA, mostly within Waterford City Centre. This approach is consistent with National compact growth policy objectives which seek to reduce vacancy and dereliction in Ireland's town centres and regional and local planning policy objectives which promote the regeneration and consolidation of Waterford City Centre.

In the case of KCC, the Ferrybank District Centre which currently comprises the constructed Ferrybank Shopping Centre is considered to represent the most suitably located and sustainable way to meet the retail needs of the local population in Ferrybank/Bellview over the study period in accordance with the MASP Retail Hierarchy. Accordingly, 100% of the constructed retail floorspace in Ferrybank Shopping Centre has been factored into the retail requirement calculations adjusted for vacancy**Error! Reference s ource not found.**. This Study has provided an allowance for 3,102sq.m net constructed convenience floorspace could commence trading in Ferrybank Shopping Centre by 2034.

The emerging draft Ferrybank/Belview LAP (2025-2031) seeks to re-zone the Ferrybank Shopping Centre to allow for mixed use development to facilitate the occupation of vacant floorspace within the centre. It is recommended that the delivery of retail and other commercial uses in closely monitored by KCC over the lifetime of the LAP. If additional convenience floorspace is not provided in Ferrybank Shopping Centre over the lifetime of the LAP (2025-2031) then a review of the Ferrybank District Centre boundaries should be considered during the new LAP review to accommodate any additional future convenience retail requirements beyond 2031.

This Study has assumed that localised retail needs in strategic housing growth areas in the Waterford MA will be met through the development of new build retail floorspace within new and existing neighbourhood centres in strategic housing growth locations (including City North West Neighbourhood (Carrickphierish and Gracedieu), Ballytruckle/Kilcohan Neighbourhood and Rockshire Road/Newrath Road):

- Carrickphierish (City North West Neighbourhood) in WCCC
- Ballytruckle/Kilcohan Neighbourhood in WCCC
- Knockboy Neighbourhood Centre in WCCC (planning permission granted under Pl. Ref. 22571 including 692sq.m net convenience floorspace).
- Rockshire Road/Newrath Road in KCC (proposed in draft Ferrybank-Belview LAP (2025-2031)

In line with adopted planning policy, additional convenience floorspace is supported alongside new housing development to meet local convenience needs in a sustainable manner where residential development is not adequately served by facilities. The Retail Planning Guidelines identify that such local retail units, including food-stores and non-food outlets (such as retail pharmacies) bring a significant social and economic benefit in terms of improving access to facilities especially for people with reduced mobility, with small children, and without private transport.

In cases where new build retail floorspace is proposed to support strategic housing growth it is recommended that there shall be an obligation for the applicant to demonstrate, through the preparation of a Retail Impact Assessment prepared in accordance with the Retail Planning Guidelines (2012), that the scale of retail floorspace is appropriate to the scale of the development and that it would not have a material and unacceptable adverse impact on the vitality and viability of any existing centre identified in the MASP and the relevant County retail hierarchy. Specific recommendations for Tier 4 Neighbour Centres are further detailed in Section 8.1.5.

It is considered that there is adequate capacity in the hierarchy of existing retail centres together with planned new neighbourhood centres to accommodate the moderate residual requirement of 1,991sq.m net floorspace by 2034 in the Study Area particularly when existing retail commitments (692sq.m net) are factored in.

8.1.2 Comparison Retail Requirement

Chapter 7 of this Study identifies a requirement for 656sq.m sq.m net additional comparison floorspace by 2026 (656sq.m), increasing cumulatively to 10,876sq.m net by 2031 and to 18,871sq.m net by 2034 after the inclusion of identified vacancy.

In terms of allocating comparison floorspace requirements at the sub-MASP level, this Study proposes that retail requirements will be met through a combination of re-occupation of vacant stock, implementation of extant retail permissions (pipeline) and development of new floorspace in Waterford City Centre. It is expected that a limited amount of ancillary comparison floorspace will also be provided within planned new neighbourhood centres in strategic growth locations.

1. Utilisation of vacant commercial floorspace could provide up to 8,353sq.m net floorspace.
2. Implementation of extant retail permissions, including the Phase 1 North Quays SDZ, could provide up to 3,404sq.m floorspace.
3. Development of new retail floorspace predominantly within Waterford City Centre.

As stated above, this Study recommends meeting future retail needs, in part, through the utilisation of existing vacant commercial floorspace located predominantly in Waterford City Centre as supported by planning policy objectives at the National, Regional and County level. This Strategy supports the overall policy objective for the city centre area as stated in the WCC CDP to '*promote the revitalisation of vacant / derelict properties / shop units as a priority'* to order to increase retail units in the Retail Core Area.

New comparison floorspace should be focused in the Waterford Retail Core Area as the principal retail destination in the County and Region. This strategy aligns with regional and local policy objectives which place Waterford City at the top of the MASP retail hierarchy and support strengthening the primacy of the City Centre for retail. An allowance should also be made for limited low-order comparison retailing to come forward in Tier 2 (L2) and Tier 4 centres in the MASP over the study period.

This strategy will be implemented through the application of WCCC and KCC DP policies requiring demonstration of compliance with the sequential approach and Retail Impact Assessment in line with the Retail Planning Guidelines to direct planning applications for new comparison retail floorspace to the Retail Core Area in the first instance.

In the case of KCC, the Ferrybank District Centre which currently comprises 4,283sq.m net comparison floorspace which has not been occupied to date. Given this floorspace has been constructed and could therefore be occupied without the need to seek planning permission from the Local Authority, 100% of the constructed comparison floorspace in Ferrybank Shopping Centre has been factored into the retail requirement calculations adjusted for vacancy.

It is recommended that significant new comparison floorspace should not be permitted in Tier 2 (L2) District Centres, including Ferrybank, which has the potential to compete with higher-order comparison retailing in the City Centre. A limited amount of low-order comparison retail floorspace may be permitted in Tier 2 (L2) District Centres through the change of use or extension of existing units subject to compliance with the retail planning policies contained in the WCCC and KCC CDP and demonstrating compliance with the Retail Planning Guidelines (2012). Specific recommendations for Tier 2 (L2) District Centres are further detailed in Section 8.1.4.

To strengthen the primacy of the Waterford City Retail Core Area in planning decisions through the development management process, it is recommended that the spatial boundaries of Tier 2 (L2) District centres are defined within the relevant CDP maps. A review of the spatial boundaries has been carried out as part of this Study and recommended boundaries are enclosed at Appendix 4.

A capacity review of opportunity sites has been undertaken as part of this Study to assess whether there is currently an adequate amount of suitably zoned lands in and on the edge of the Retail Core Area to meet the residual requirement for comparison floorspace up to 2034. A review of City Centre opportunity sites is presented in Appendix 5 of this report. The key opportunity sites considered suitable for delivery of new comparison floorspace include:

- Michael St Car Park Site (Site ID 1.0): capacity to deliver up to 10,000sq.m new build retail floorspace over multiple levels as part of a mixed-use development. This site has received planning permission on two previous occasions for between 10,000–23,000sq.m retail floorspace together with the adjacent vacant former WIT Site (Site ID 1.0).

- Jenkins Lane (Site ID 13.0): capacity to accommodate c. 1,000sq.m. net retail floor space at ground level as part of multi-storey mixed-use development.
- Further to above, the North Quays SDZ has capacity to deliver up to an additional 13,750 sq.m net comparison floorspace in subsequent phases 2-3 in addition to 3,404sq.m floorspace in Phase 1 currently under consideration under Pl. Ref. 2460304[41].

It is considered that there is adequate capacity in Waterford City Centre to accommodate the residual requirement of 18,871sq.m net by 2034 in the Study Area particularly when existing retail commitments of up to 3,404sq.m floorspace are factored in.

8.1.3 Waterford City Centre

This Study recommends meeting comparison retail requirements predominantly through the delivery of new floorspace and through the conversion of vacant units in Waterford City Centre. The key opportunity sites for the delivery of new comparison floorspace include Michael St Car Park Site and Jenkins Lane within the historic city centre and the North Quays SDZ.

This section outlines a series of key actions to support the utilisation of vacant commercial floorspace and development of new units in the historic city centre by creating the necessary conditions to attract investment, retailers and shoppers to the City Centre. Further detailed recommendations for enhancing sustainable travel in Waterford City Centre are presented in Section 6.5.1 of this Report.

Throughout the stakeholder engagement, stakeholders cited high vacancy rate and prominence of vacant and derelict shops as detracting from the overall environment of the City Centre and attraction of the City Centre to shoppers, retailer and investors. This Study identifies high priority actions to support the utilisation of vacant commercial floorspace, residential (over the shop) living as well as meanwhile uses in the short-medium term. In the short term WCCC will need to take a lead role in the implementation of these measures together with key stakeholders such as Waterford City Centre Management Group (WCCMG) and Waterford Business Group. This Study recommends exploring options to establish a City Centre Business Improvement District (BID) or Business Development Manager with responsibility for coordinating interventions in the City Centre in the medium term.

Table 55 Waterford City Centre Recommended Actions: Activation

Activation: priority actions to encourage occupation of vacant units/derelict sites and increase footfall		
	Action	Implementation Bodies
1	Promote ‘meanwhile’ use of vacant sites and units for pop-up shops, markets and events through a coordinated City Centre management strategy.	WCCC (lead) WCCMG
2	Review the uptake of Economic Incentive Grant Scheme and engage with businesses to increase the uptake of the grant and bring more vacant properties into use.	WCCC (lead) WCCMG Waterford Business Group
3	Develop increased supports and awareness for Living Over the Shop to increase resident population and footfall in the City Centre throughout the daytime and evening.	WCCC (lead)
4	Undertake regular health checks of the city centre to monitor the impacts of interventions in the City Centre.	WCCC (lead) WCCMG

[41] According to Applicant’s Planning Application Documents (Pl. Ref. 2460304)

5	Explore the establishment of a City Centre Business Improvement District (BID) or Business Development Manager with responsibility for coordinating interventions in the City Centre and with access to necessary finance.	WCCC (lead) WCCMG Waterford Business Group

A key issue raised in stakeholder engagement was the need to improve the quality of pedestrian connections and address vacancy and dereliction within the city centre. The Tourism and Heritage Quarter is a significant tourism attractor and has undergone significant investment in recent years resulting in a high-quality public realm. However, the quality of the public realm in the Tourism and Heritage Quarter is not matched within the Retail Core Area or along the Quays currently. There is an opportunity to further capitalise on tourist spending by encouraging tourists to visit areas outside of the Viking precinct by providing clear signage to retail destinations linked via attractive pathways. The renovation of historic buildings and restoration of the Medieval City Walls presents a key opportunity to enhance the quality of the built environment and capitalise on Waterford's rich history.

Table 56 Waterford City Centre Recommended Actions: Environment and Public Realm

Environment: priority actions to improve quality of the public realm and overall visitor experience		
	Action	Implementation Bodies
1	Prepare a Public Realm Strategy to create a unified high-quality public realm throughout the City Centre building upon recent public realm improvements (Tourism and Heritage Quarter) to include: • Establish design guidelines for new public realm works (materials, signage, lighting, tree planting, parking, servicing); • Develop detailed measures to improve quality of pedestrian connections between the Retail Core Area, the Quays and the Tourism and Heritage Quarter; • Review public lighting in pedestrianised areas to provide a safe and attractive public realm during the daytime and evening; • Identify opportunities for urban greening – new street planting, soft landscaping and pocket parks; • Identify opportunities for additional seating.	WCCC (lead)
2	Implement the recommendations of the Interpretation Plan for Waterford's Medieval City Walls including the Beach Tower Square project under the City Centre URDF funding programme.	WCCC (lead)
3	Review the uptake of Urban Facade Improvement Grant Scheme and engage with businesses to increase the uptake of the grant.	WCCC (lead) WCCMG Waterford Business Group
4	Progress the Spring Garden Alley Public Park under the City Centre URDF programme to provide access to green space within the Retail Core Area and provide improved pedestrian connections between the Night-time Quarter and the Tourism and Heritage Quarter.	WCCC (lead)
5	Prepare Development Briefs for key opportunity sites together with an implementation plan identifying potential public and private funding options and potential development partners: • Michael St Car Park Site to include significant new retail floorspace as part of a mixed-use urban quarter to provide a new retail & tourism destination.	WCCC (lead)

	• Jenkins Lane Regeneration Site: new ground floor retail space as part of a mixed-use urban quarter with upgraded pedestrian and cycle links from Great George's to Patrick Street. • South Quays Regeneration Site: play and events facilities and rationalised priority accessible/coach parking (informed by a City Centre Car Parking Strategy).	

A key issue raised in stakeholder engagement was traffic congestion in the City Centre acting as a deterrent to visitors and to retailers from locating in the City Centre as well as undermining the reliability of public transport services. The delivery of the North Quays public transport hub and associated sustainable transport bridge will significantly improve public transport access into the City Centre and north to south connections. However further complimentary strategies need to be implemented to improve ease of access throughout the city via public transport and active modes of travel more widely across the city centre. This Study supports the implementation of the WMATS which sets out a framework for fundamentally change how people travel within Waterford MA by prioritising walking, cycling and public transport and identifies specific high priority actions. Further detailed recommendations to improve sustainable access to/from and within Waterford City Centre in line with the WMATS are set out in Section 6.5.1 of this Report.

Table 57 Waterford City Centre Recommended Actions: Access

Accessibility: priority actions to improve accessibility by all transport modes and reduce congestion		
	Action	Implementation Bodies
1	Continue working with the NTA to deliver the walking, cycling and public transport objectives outlined in the WMATS.	WCCC (lead)
2	Improved enforcement of bus priority routes and enforcement of car parking in bus lanes.	WCCC (lead)
3	Prepare and implement a City Centre Car Parking Strategy to help reduce through traffic in central areas to include: • Undertake a review of car parking charges in Waterford City and alternative city centre locations and out-of-centre locations to inform charging strategies; • Identify opportunities to rationalise the existing number of surface car parks in the city centre prioritising edge of City Centre locations with potential for high quality pedestrian links to the centre; • Identify locations for accessible car paring and for servicing of commercial units in central areas; • Strategy to be informed by car park usage capacity monitoring data and future car trip forecasts in line with the WMATS; • Identify proposals to enhance pedestrian connections between existing/retained car parks and the city centre; • Include an associated implementation plan with funding streams identified to implement key actions.	WCCC (lead)
4	Review pedestrianisation and traffic management in the City Centre to create high-quality pedestrian connections between all Quarters of the City.	WCCC (lead)
5	Develop specific measures to improve connectivity between the Retail Core Area and the Quays and the Tourism and Heritage Quarter as part of a Public	WCCC (lead)

	Realm Strategy to increase pedestrian footfall and dwell-time in the Retail Core Area.	

The Figure below identifies the key opportunities to enhance the city centre.

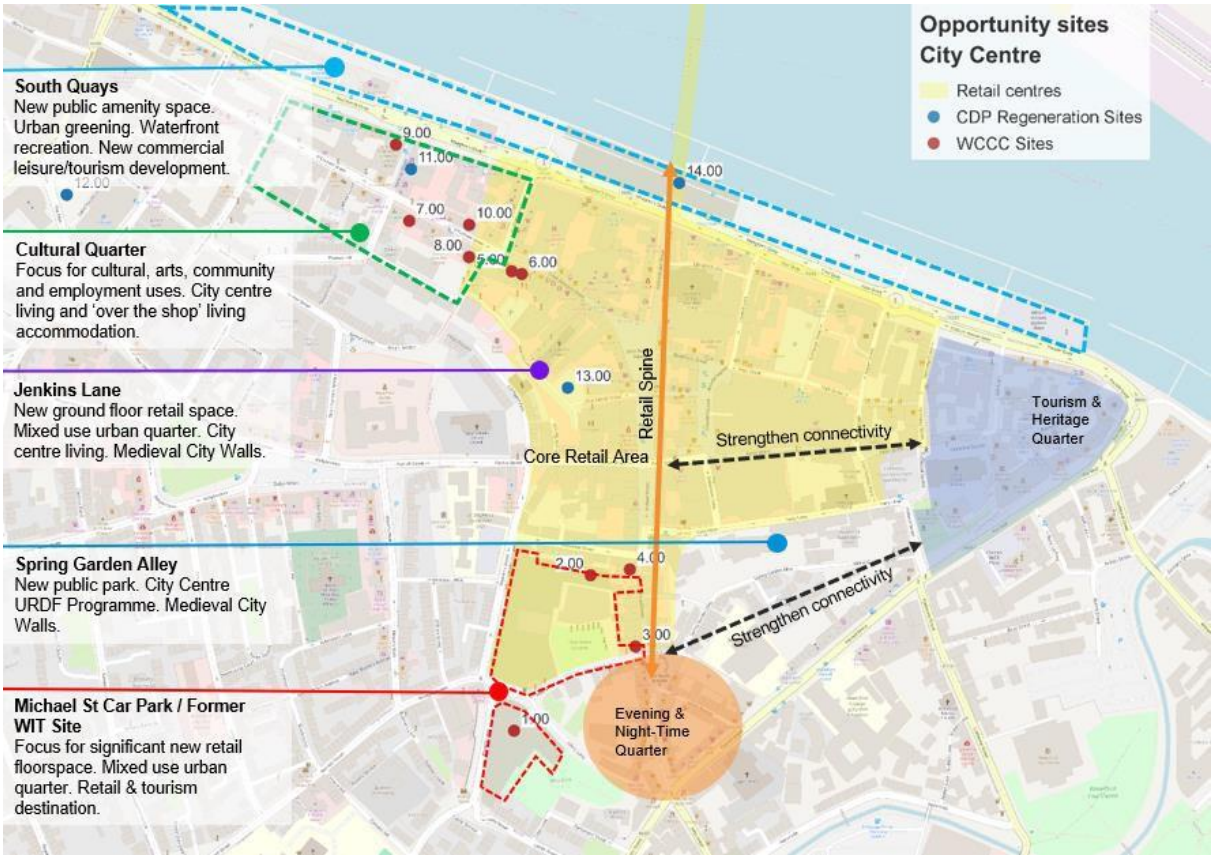


Figure 85: Waterford City Centre: Key Opportunities

8.1.4 Tier 2 (L2) District Centres

There are 4no Tier 2 (L2) District Centres in the Waterford MASP Retail Hierarchy including Ardkeen, Kilbarry, Tramore Road, Inner Relief Road and Waterford Shopping Centre, Lisduggan in WCCC and Ferrybank Centre in KCC.

The health checks presented in Section 5 identify that all Tier 2 (L2) District Centres in WCCC provide a comprehensive and diverse range of retail facilities in line with their District Centre designation and hence no requirement has been identified in this Study for significant new retail development in the WCCC District Centres. Notwithstanding any comprehensive redevelopment, Tier 2 (L2) District Centres in WCCC have limited capacity to provide new retail floorspace since they are comprised of purpose-built shopping centres with low vacancy rates.

Further recommendations for enhancing sustainable travel in alignment with the 10-minute neighbourhood concept for each of the WCCC Tier 2 (L2) District Centres are presented in Sections 6.5.2 – 6.5.4 of this Report.

This Study recommends Ferrybank District Centre as the most suitably located and sustainable way to meet the retail needs of the local population in Ferrybank/Bellview. It is assumed that 100% of the constructed retail floorspace in Ferrybank Shopping Centre could commence trading in Ferrybank Shopping Centre by 2034. However, the Ferrybank District Centre is zoned in the emerging draft

Ferrybank/Belview LAP (2025-2031) to allow for a wider mix of uses to be delivered to facilitate the utilisation of vacant floorspace. It is recommended that the delivery of the mix of commercial uses in Ferrybank Shopping Centre is closely monitored by KCC over the lifetime of the LAP.

Overall policy recommendations for Tier 2 (L2) District Centres in terms of meeting future retail requirements are set out below:

- WCCC/KCC to support development of convenience floorspace to meet local shopping needs.
- WCCC to support development of a limited amount of low-order comparison floorspace to meet local shopping needs.
- WCCC to resist development of high and medium order comparison floorspace which has the potential to undermine the vitality and viability of the City Centre.
- KCC to resist development of additional comparison floorspace in Ferrybank District Centre which has the potential to undermine the vitality and viability of the City Centre.

It is recommended that any planning application for additional comparison floorspace in Tier 2 (L2) District Centres should be accompanied by a Retail Impact Assessment prepared in accordance with the Retail Planning Guidelines (2012) demonstrating that the scale and type of retail floorspace is appropriate to the position and function of the centre in the retail hierarchy and that it would not have a material and unacceptable adverse impact on the vitality and viability of any existing centre identified in the MASP and the relevant County retail hierarchy.

8.1.5 Tier 4 Local & Neighbourhood Centres

There are 7no Tier 4 Local & Neighbourhood Centres in the Waterford MASP Retail Hierarchy includingBallinakill, Ballybeg, Carrickphierish, Cleaboy, Hypermarket, Morgan Street Kilcohan. Williamstown, Ballygunner Road and Knockboy. In addition, a new neighbourhood centre is proposed in the emerging draft Ferrybank-Belview LAP (2025-2031) at Rockshire Road/Newrath Road to provide local retailing facilities alongside significant housing growth.

In line with adopted planning policy, additional convenience floorspace in existing and new Neighbourhood Centres is supported to meet local convenience needs in a sustainable manner and to help realise the 10-minute neighbourhood concept in the Waterford MA.

Overall policy recommendations for Tier 4 Local & Neighbourhood Centres in terms of meeting future retail requirements are set out below:

- WCCC/KCC to support development of new convenience floorspace in existing centres to meet local shopping needs.
- WCCC/KCC to support development of new convenience floorspace as part of new neighbourhood centres alongside strategic housing development to meet local shopping needs.

It is recommended that any planning application for new neighbourhood centres or new retail units over 100 sq.m net in existing centres should be accompanied by a Retail Impact Assessment prepared in accordance with the Retail Planning Guidelines (2012) demonstrating that the scale and type of retail floorspace is appropriate to the position of the centre in the retail hierarchy and that it would not have a material and unacceptable adverse impact on the vitality and viability of any existing centre identified in the MASP and the relevant County retail hierarchy.

8.1.6 Retail Warehousing

Extensive areas of retail warehousing have been developed in the Waterford MA including the retail parks at Buttlerstown, Musgrave Business Park, Tramore Road and the Cork Road. In addition,

planning permission was granted in 2023 for a significant extension to Waterford Retail Park, Cork Road comprising 7,392 sqm net comparison bulky retail floorspace[42]. Notwithstanding this commitment, this Study has found that there is no residual capacity for additional comparison bulky floorspace up to 2034.

Overall policy recommendations for out-of-centre/retail warehousing areas in terms of meeting future retail requirements are set out below:

- WCCC/KCC to strictly control and monitor the nature and type of goods sold from existing retail warehouse developments to be limited to bulky household goods.

8.2 Planning Policy Recommendations

The table below summarises the planning policy recommendations discussed throughout this Study.

Table 58 Planning Policy Recommendations

Recommendation 1
Planning applications for new retail development exceeding 100 sq.m net outside of the Waterford City Retail Core Area shall be accompanied by a Retail Impact Assessment prepared in accordance with the Retail Planning Guidelines (2012) demonstrating that the scale and type of retail floorspace is appropriate to the position and function of the centre in the retail hierarchy and that it would not have a material and unacceptable adverse impact on the vitality and viability of any existing centre identified in the MASP and the relevant County retail hierarchy. In WCCC, this shall be implemented through the enforcement of Waterford City Retail Policy Objectives W City Retail 01-W City Retail 07 in the WCC CDP. In KCC, this shall be implemented through the enforcement of Retail Policy 4 and Policy 5 in the KCC CDP. **Reason** To protect the status of Waterford Retail Core Area as the primary shopping area for high and medium order retail goods in the Southeast Region.
Recommendation 2
Maps showing the spatial boundaries of all Tier 2 (L2) District centres in the Waterford MASP Retail Hierarchy shall be incorporated in the WCC CDP. A review of the spatial boundaries has been carried out as part of this Study and recommended boundaries are enclosed at Appendix 4. **Reason** To strengthen the implementation of retail development management policies and to protect the status of Waterford Retail Core Area as the primary destination for medium and high order comparison retail.
Revise the Waterford MASP Retail Hierarchy in the WCC CDP to include the proposed new Tier 4 Neighbourhood Centre at Rockshire Road/Newrath Road in KCC (subject to inclusion of same in the adopted version of the Ferrybank-Belview LAP (2025-2031). **Reason** To strengthen the Waterford MASP Retail Hierarchy and to facilitate the development of the 10-minute neighbourhood concept across the Waterford MA.
Recommendation 3

[42] Pl. Ref. 22936 & ABP ref. 315633-23

Update the vision for the Michael Street Car Park Site Regeneration and Opportunity Site OPS27 to include the following objectives:

- To provide significant new comparison floorspace in the longer term (up to 2034)
- WCCC to prepare a development brief for the site over the lifetime of the CDP

Reason

To strengthen the status of Waterford Retail Core Area as the primary shopping area in the Southeast Region by providing a high-quality shopping environment and a variety of high and medium order retail goods.

Recommendation 4

It is recommended that retail requirement calculations contained within this Study should be updated as part of the SRA RSES review process to take account of revised population targets for the Waterford MA in line with the Revised NPF 2025.

Reason

To provide for the proper planning and sustainable development of the area. To ensure a sufficient quantum of retail floorspace is planned for within the CDP in line with the published population targets for the Waterford MA.

Recommendation 5

The delivery of the mix of commercial uses in Ferrybank Shopping Centre shall be monitored by KCC over the lifetime of the Ferrybank-Belview Framework Plan 2025-2031. If convenience floorspace is not delivered in Ferrybank Shopping Centre over the lifetime of the Plan, then a review of the spatial boundaries of Ferrybank District Centre should be undertaken during the next Plan review (2031) to accommodate any additional future convenience retail requirements beyond 2031 taking account of revised population targets for the Waterford MA (as above).

The review of the spatial boundaries of Ferrybank District Centre shall be undertaken in line with the Retail Planning Guidelines (2012) which state: *"The need for additional retail development in particular district centres to serve future population growth or for any significant extension to an existing district centre should be identified in the development plan and be based on a significant growth in population in the intended location or on a demonstrable level of under-provision of retailing or other services to meet the regular convenience and lower order comparison shopping needs of new communities as provided for and quantified by the relevant core strategy."*

Reason

To provide for the proper planning and sustainable development of the area. To ensure a sufficient quantum of retail floorspace is planned for within the CDP in line with the published population targets for the Waterford MA.

9.0 Conclusions

This Strategy has been prepared in accordance with the Waterford MASP policy objectives of the SRA RSES and includes the defined Retail Core Area, Suburban/District Shopping Centres and a map to indicate sustainable travel routes to/from each shopping area. Accordingly, the Study Area adopted in this report is the Waterford MA.

Waterford City Centre is the principal retail centre in the MASP retail hierarchy. While it serves its immediate catchment area successfully the comparison retail offer is not consistent with its role as the primary shopping area for high and medium order retail goods in the Southeast Region. Notably, National/International retailers, fashion retailers and department/variety stores are underrepresented in the City Centre compared to other Regional Cities (Cork) and other District Centres in the Metropolitan Area (Ardkeen) to a lesser extent. Significant investment and redevelopment in the Retail Core Area is required to address vacancy levels and dereliction in the City Centre and to expand the comparison shopping offer commensurate with its regional centre status.

The Tourism and Heritage Quarter has undergone significant redevelopment in recent years and acts as a significant attractor in the City. There is an opportunity to further capitalise on tourist spending and to drive increased retail footfall through the main shopping streets by providing attractive pedestrian connections linking the Tourism/Heritage Quarter with the Retail Core Area and Evening/Night-time quarter with clear signage to retail destinations. The renovation of historic buildings and restoration of the Medieval City Walls presents a key opportunity to enhance the quality of the built environment and capitalise on Waterford's rich history.

This Report sets out a series of **priority actions** to support the primacy of Waterford City Centre for retail by creating the appropriate conditions to foster a healthy and vibrant retail environment. The Figure below identifies the key opportunities for enhancement of the city centre.

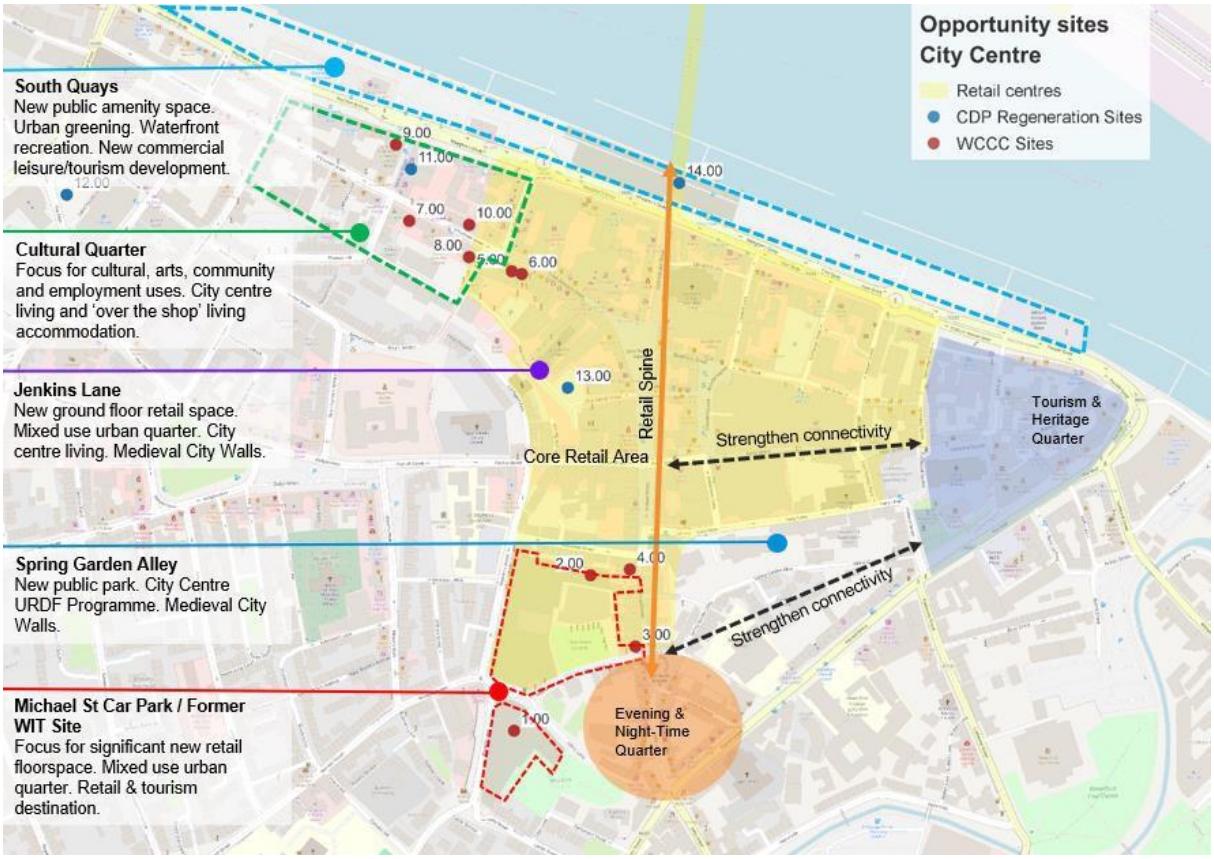


Figure 86: Waterford City Centre: Key Opportunities

This Report recommends **priority actions** to increase the attraction of the City Centre to both shoppers and retailers under the following key objectives: addressing vacancy and dereliction, enhancing the public realm and improving access to and within the Retail Core Area.

Development of **key opportunity sites** with the historic city centre (South Quays, Michael St car park site and Jenkins Lane) and the North Quays SDZ have the potential to have a transformative effect on the profile of the City Centre and help to establish Waterford as the principal Regional retail destination.

Further detailed recommendations to improve **sustainable access** to/from and within Waterford City Centre in line with the WMATS are detailed out in Section 6.5.1 of this Report.

The **Tier 2 (L2) District Centres** in WCCC (Ardkeen, Kilbarry, Tramore Road, Inner Relief Road and Waterford Shopping Centre, Lisduggan) provide a comprehensive and diverse range of retail facilities in line with their District Centre designation and hence no requirement has been identified in this Study for significant new retail development in the District Centres.

Significant comparison and bulky comparison retail floorspace has developed around some of these original purpose-built District Centres which have evolved as retail destinations in their own right competing with the City Centre. Ardkeen District Centre contains high-order comparison retailing which is considered to undermine the overall attraction of the City Centre. Specific recommendations to improve sustainable travel to/from the District Centres are detailed in this Report (Section 6.5.2-6.5.3) as well as recommendations to improve environmental quality within the District Centres (Section 5.3-5.5).

It is recommended that the spatial boundaries of all Tier 2 (L2) District centres shall be defined in the WCC CDP to strengthen the implementation of retail development management policies and to protect Waterford Retail Core Area as the primary destination for medium and high order comparison retail.

Ferrybank District Centre is the only Tier 2 (L2) centre in KCC in the study area. This Study recommends that the utilisation of vacant floorspace in Ferrybank shopping centre is the most sustainable way to meet the retail needs of the local population in Ferrybank/Bellview over the study period. A Ferrybank-Belview Framework Plan for the period 2025-2031 is currently being prepared which includes specific objectives to improve sustainable travel in the Plan area (including Ferrybank District Centre) based on the Ferrybank-Belview Local Transport Plan.

It is recommended that if convenience floorspace is not delivered in Ferrybank Shopping Centre over the lifetime of the Plan then a review of the spatial boundaries of Ferrybank District Centre should be undertaken during the next Plan review (2031) to accommodate any additional future convenience retail requirements beyond 2031.

Chapter 7 of this Study identifies a requirement for 1,991sq.m net additional **convenience** floorspace by 2034 after the inclusion of identified vacancy. This Study proposes that retail requirements will be met at the sub-MASP level through a combination of utilisation of vacant floorspace, implementation of extant retail permissions (pipeline) and development of new floorspace in defined centres as well as establishment of new neighbourhood centres in strategic growth locations:

1. Utilisation of vacant commercial floorspace could provide up to 7,496sq.m net floorspace.
2. Implementation of extant retail permissions could provide up to 692sq.m net floorspace.
3. Development of new retail floorspace in existing Tier 1, Tier 2 (L2) and Tier 4 centres.
4. Development of new neighbourhood centres in strategic housing growth locations in WCCC (City North West Neighbourhood (Carrickphierish and Gracedieu), Ballytruckle/Kilcohan Neighbourhood)
5. Development of a new neighbourhood centre at Rockshire Road/Newrath Road in KCC alongside strategic housing development.

It is considered that there is adequate capacity in the hierarchy of existing retail centres together with planned new neighbourhood centres to accommodate the moderate residual requirement of 1,991sq.m

net floorspace by 2034 in the Study Area particularly when existing retail commitments (692sq.m net) are factored in.

Chapter 7 of this Study identifies a requirement for 656sq.m sq.m net additional **comparison** floorspace by 2026, increasing cumulatively to 10,876sq.m net by 2031 and to 18,871sq.m net by 2034 after the inclusion of identified vacancy.

This Study proposes that retail requirements will be met at the sub-MASP level through a combination of utilisation of vacant floorspace, implementation of extant retail permissions (pipeline) and development of new floorspace predominantly in Waterford City Centre:

1. Utilisation of vacant commercial floorspace could provide up to 8,353sq.m net floorspace.
2. Implementation of extant retail permissions, including the Phase 1 North Quays SDZ, could provide up to 3,404sq.m floorspace.
3. Development of new retail floorspace predominantly within Waterford City Centre.

New comparison floorspace should be focused in the Waterford Retail Core Area as the principal retail destination in the MASP and the south east. Limited low-order comparison retailing may also be permitted in Tier 2 (L2) and Tier 4 centres in the MASP over the study period subject to compliance with retail policies in the CDP and the Retail Planning Guidelines. However, it is recommended that significant new comparison floorspace should not be permitted in Tier 2 (L2) District Centres, including Ferrybank, over the study period.

This Study recommends meeting future retail needs through the utilisation of vacant commercial units located predominantly in Waterford City Centre in accordance with the overall policy objective for the city centre stated in the WCC CDP to *'promote the revitalisation of vacant / derelict properties / shop units as a priority'* in order to increase retail in the Retail Core Area.

The key opportunity sites with capacity for delivery of new comparison floorspace include:

- Michael St Car Park Site (Site ID 1.0): capacity to deliver up to 10,000sq.m new build retail floorspace over multiple levels as part of a mixed-use development. This site has received planning permission on two previous occasions for between 10,000–23,000sq.m retail floorspace together with the adjacent vacant former WIT Site (Site ID 1.0).
- Jenkins Lane (Site ID 13.0): capacity to accommodate c. 1,000sq.m. net retail floor space at ground level as part of multi-storey mixed-use development.
- Further to above, the North Quays SDZ has capacity to deliver up to an additional 13,750 sq.m net comparison floorspace in subsequent phases 2-3 in addition to 3,404sq.m floorspace in Phase 1 currently under consideration under Pl. Ref. 2460304.

It is considered that there is adequate capacity in Waterford City Centre to accommodate the residual comparison floorspace requirement of 18,871sq.m. net by 2034 particularly when existing retail commitments (up to 3,404sq.m floorspace) are factored in.

Chapter 7 of this Study identifies that there is no residual capacity for additional **comparison bulky** floorspace up to 2034. In addition, planning permission was granted in 2023 for a significant extension to Waterford Retail Park, Cork Road comprising 7,392sq.m. net comparison bulky retail floorspace[43] which was not directly factored into the retail requirement calculations. Should this scheme be delivered, this would increase the residual spending shortfall over and above the levels reported in Chapter 7.

It is recommended that WCCC/KCC strictly control and monitor the nature and type of goods sold from existing retail warehouse developments to be limited to bulky household goods only.

[43] Pl. Ref. 22936 & ABP ref. 315633-23

Finally, it is recommended that retail requirement calculations contained within this Study should be updated as part of the SRA RSES review process to take account of revised population targets for the Waterford MA in line with the Revised NPF 2025.

Appendix 1 Planning Policy Review

This Section outlines the policy context within which this Joint Retail Strategy for the Waterford Metropolitan Area has been prepared. This Strategy document has been prepared in accordance with the strategic policy direction established in National and regional planning policy. In doing so, the Strategy aims to promote a balanced and comprehensive approach is taken to retail development in the Waterford Metropolitan Area, taking into consideration external influences and other economic sectors.

National Policy Context

The following section outlines the primary National policy that guides retail planning in Ireland. It includes the overarching State plans and strategies as well as retail specific guidelines. Analysis of the implications for the South-East region of these policies is included.

National Planning Framework – Ireland 2040 Our Plan

The National Planning Framework (NPF) is a high-level strategy that will shape Ireland's growth and development up to the year 2040. Drawing upon lessons learned from the implementation of the National Spatial Strategy 2002-2022, the NPF calls for a shift from an uncoordinated "business as usual" approach to planning and provides a framework for the sustainable development of Ireland's existing settlements.

The NPF sets out a population target for the Southern Region of 340,000-380,000 additional people i.e., a population of almost 2 million by 2040. It is projected that around 225,000 additional jobs i.e., at least 880,000 in total will be required to sustain this level of population growth.

National Policy Objective 7 (NPO 7) calls for the strengthening of all levels of Ireland's urban structure, with a particular focus on the five city regions (Dublin, Limerick, Cork, Galway and Waterford), large towns (>10,000 population) and small towns (<10,000 population). While the NPF identifies the scope that exists for all large towns in Ireland, detailed growth targets for these towns are set out in the Regional Spatial and Economic Strategies (RSESs).

National Policy Objective 5 seeks to Develop cities and towns of sufficient scale and quality to compete internationally and to be drivers of national and regional growth, investment, and prosperity.

National Policy Objective 6 aims to Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity.

National Policy Objective 3b: Deliver at least half (50%) of all new homes that are targeted in the five cities and suburbs of Dublin, Cork, Limerick, Galway, and Waterford, within their existing built-up footprints.

Key future planning and development and place-making policy priorities for this Region include:

Developing and implementing comprehensive and strategic metropolitan area spatial plans for Cork, Limerick and Waterford cities that secure long-term transformational and rejuvenation-focused city development, with a special emphasis on capitalising on the potential of underutilised and publicly owned and centrally located sites and activating their potential to boost the population and economic output levels of city centre areas as drivers for wider regions.

Waterford is the principal urban centre in Ireland's south-east and is unique in having a network of large and strong regional urban centres in proximity within each of the surrounding counties that both complement the role of Waterford and perform strong regional and local economic and developmental roles for their own areas.

The key challenge for Waterford is to build scale and enhance urban quality through employment-led growth. The City's existing employment base included pharma, med-tech and engineering/advanced manufacturing sectors as well as emerging indigenous enterprises.

There is capacity to build on all these strengths while enhancing Waterford's small-city attractiveness and quality of life.

Key future growth enablers for Waterford include:

- Delivering the North Quays SDZ regeneration project for integrated, sustainable development together with supporting infrastructure, including a new pedestrian bridge or a pedestrian/public transport bridge over the River Suir.
- Identifying infill and regeneration opportunities to intensify housing and employment development throughout city centre and inner suburban areas.
- Enabling enhanced opportunities for existing communities as development and diversification occurs, particularly through employment, learning and education support.
- Progressing the sustainable development of new greenfield areas for housing and the development of supporting public transport and infrastructure.
- Public realm and urban amenity projects, focused on streets and public spaces, particularly in the city centre and inner urban area in support of urban intensification.
- The development and expansion of the City's third level institution and integration with the city and region.
- Provision of Citywide public transport and strategic cycleway networks.
- Extension of the Deise greenway to link WIT to the City Centre.
- Enhanced regional connectivity through improved average journey times by road to Cork, Limerick, and ports within the region.
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Waterford's water supply and increase wastewater treatment capacity.
- Improving sustainability in terms of energy, waste management and resource efficiency and water, to include district heating and water conservation.

National Policy Objective 4: aims to Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high-quality of life and well-being.

The cities of Limerick, Galway and Waterford are also important drivers of national growth and key regional centres. All have international visibility to some extent and require greater scale. As part of the National Planning Framework strategy to accelerate the development of and strengthen these Cities, all three should also plan to grow by at least half, i.e., by 50% to 60%, to 2040.

A Metropolitan Area Strategic Plan (MASP) has been prepared for the Waterford Metropolitan Area through the Regional Spatial and Economic Strategy process. Strategically located between Cork and Dublin, with a network of large towns, the south-east has capacity for improved growth, but has not had a focus sufficient in scale to drive the sustained development of the region.

First revision of the National Planning Framework

Since the publication of the NPF in 2018 there have been several significant and critical developments in relation to planning policy, guidance, and legislation, as well as governance and institutional change.

Also, within this time, unprecedented and unforeseen events have occurred with ongoing consequences, such as the impact of Covid-19 particularly in relation to trends in commuting patterns and the emergence of established blended working.

The NPF, based on demographic and econometric modelling, projected that there would be a total of 5.8 million people in Ireland in 2040 which would require significant additional housing and employment. The growth strategy of the NPF seeks to shift the spatial pattern of development in Ireland towards more regionally balanced, city focused and compact growth. The strategy is to target population growth split roughly 50:50 between the Eastern and Midland Regional Assembly Area (EMRA) and the rest of the Country.

Public Consultation on Draft NPF Revision closed in September 2024 and the Updated Draft NPF Revision was published in November 2024, subject to finalisation following environmental assessment. The Revised NPF provides updated National and Regional population projections and growth targets based on updated demographic and econometric modelling developed from the final Census 2022 data prepared by the ESRI (July 2024).

The Revised NPF projects that there will be a total of 6.1 million people in Ireland in 2040 which will require additional housing and employment development over the level projected in the NPF 2018. Since the NPF was adopted in 2018, global events have contributed to accelerated population growth in Ireland and have impacted on economic development trends including:

- The population of Ireland is projected to reach 6.1m people by 2040, an additional 1m people between 2022-2040, resulting in an increased need for 50,000 additional dwellings per year up to 2040.
- The population aged 65+ will more than double by 2040 while the population aged under 15 will decline by 10%.
- Ireland ranks in the top 10 countries globally in terms of GDP per capita and FDI.
- Ireland recorded the highest number of people in employment since records commenced at 2.74m in Q2 2024.
- Ireland ranks in the top 10 countries globally in terms of democracy providing a positive platform for economic growth.
- The ongoing shift to a service-based knowledge economy will demand a more highly skilled and educated workforce.
- The growth of hybrid working will continue to change the nature of work and alter commuting patterns.

The Revised NPF retains the NPF 2018 targeted pattern of growth whereby growth in the Northern and Western and Southern Regional Assembly areas combined would exceed that projected under a ‘business as usual’ scenario and would at least equate to that projected for the Eastern and Midland Region.

Under the Revised NPF, the minimum population growth target for the Southern Regional Assembly area has been revised upwards from:

- +340,000 - 380,000 people between 2016-2040 in NPF 2018 to;
- +450,000 people between 2016-2040 in Revised NPF 2025

In line with the above, the minimum 2024 population growth target for Waterford City and Suburbs has been revised upwards from 85,000 in NPF 2018 to 88,000 in the Revised NPF 2025. A revised ‘NPF Implementation Roadmap’ will be published setting out guidance to ensure that NPF population projections are translated into regional and local planning policy in a consistent manner.

National Development Plan 2021 – 2030

As part of Project Ireland 2040 the National Development Plan (NDP) sets out the Government's over-arching investment strategy and budget for the period 2021-2030. It is an ambitious plan that balances the significant demand for public investment across all sectors and regions of Ireland with a major focus on improving the delivery of infrastructure projects to ensure speed of delivery and value for money.

The NDP outlines a case study for the Waterford Greenway which is a 46km off road cycling and walking trail along the old railway line between Dungarvan and Waterford City. The Greenway was constructed in phases between 2014 and 2017 with a total cost of €21 million with €16 million funded by Waterford City and County Council, and €5 million from the Department of Transport.

The objectives of this Greenway are to attract more visitors to Waterford and key attractions such as the Viking Triangle in Waterford City, Mount Congreve Gardens, the Suir Valley Railway, and town along the route such as Kilmacthomas and Dungarvan in the hopes to strengthen the rural communities and economies along the Greenways, to provide a sustainable mobility route for commuters and to contribute to the population growth targets in the National Planning Framework.

The direct impact of this Greenway contributed to approximately 30-40 direct jobs being sustained over the three years of its construction, over 280,000 trips by the public each year has supported local and economic enterprises, and finally, the economic benefits linked to the Greenway include increased demand for accommodation, food, bike hire and at least 139 new jobs.

Waterford City Centre Regeneration is included in the list of projects with provisional support from the Urban Regeneration and Development Fund (URDF) of €27,661,564 in twenty-two projects across the wider Viking Triangle and Cultural quarter areas.

Further funding will be targeted across a number of strands, which will separately address the needs of cities and towns, reflecting both the experience of the funding calls to date, and the objectives of Housing for All in terms of accelerating new supply and tackling vacancy in towns, which is reflective of the Town Centres First approach. The funding will be aligned with the Town Centre First Approach will seek to provide a toolkit for the enablement of specific visions for towns, specific criteria will be included in the URDF to encourage the activation of vacant properties, and to bring stock back into productive use to promote vitality and vibrancy in the town centres.

Waterford City & County Council expects to spend nearly €12 million on seven projects in the wider Viking Triangle area including the creation of a new 'Friary Precinct'. Plans are in place to create a further plaza to the rear of Parade Quay, linking it with Greyfriars, allowing businesses to open onto the newly created 'Friary Square'. Full views of the city walls are set to be opened up, with a linear park along Spring Garden Alley.

Encouraging a significant modal shift through greater levels of investment and further development of meaningful alternatives to private car uses under the following three major environmentally sustainable mobility schemes:

- Additional cycling and walking infrastructure which will provide additional sustainable mobility options to complement increased capacity and faster, higher quality public transport in our main cities.
- Travel demand management measures.
- Pilot initiatives for low emitting technologies in the transport sector.

Retail Planning Guidelines (2012) and Retail Design Manual (2012)

The third iteration of the Retail Planning Guidelines were published in 2012 by the Department of the Environment, Community and Local Government and accompanied by the Retail Design Manual (2012).

The guidelines provide a framework for regional and Local Authorities in preparation of policies and County Development Plans, to allow Planning Authorities assess planning applications and to assist developers and retailers in formulating development proposals.

The guidelines outline five key policy objectives as follows:

- Ensure retail development is plan-led;
- Promotion of City/Town Centre vitality through a sequential approach to planning;
- Secure competitiveness in the retail sector through the enabling of quality development in suitable locations;
- Facilitate the shift towards easier access to retail via public transport, cycling and walking; and
- Delivering quality urban design.

One of the key tools to enable the above objectives is the requirement for the preparation of Retail Strategies to inform the Development Plans, by prescribing levels and form of additional retail floorspace and identifying a retail hierarchy. Through this, the guidelines state that applications for retail development are to be in line with the role and function of the settlements identified in the retail hierarchy.

Any proposal should also accord with the scale and type of retail development identified in the retail strategy to support the vitality and viability of these settlements. A presumption against large out-of-town retail centres is further identified. Retail Impact and Traffic Impact Assessments are also required to accompany planning applications ensuring any potential impact on existing retail and in particular the vibrancy and vitality of the Town Centre is avoided.

The guidelines state that planning applications should be assessed using the 'Sequential Test'. The overall preferred location for new retail development is within City and Town Centres. Retail development may also be appropriate within District Centres identified in the settlement hierarchy at a scale appropriate to the needs of the area.

Only where the applicant can demonstrate and the Planning Authority is satisfied, that there are no sites or potential sites within a City, Town Centre or designated District Centre should an edge-of-centre site be considered.

In addition, only in exceptional circumstances where it can be demonstrated that there are no sites, or potential sites, available either within the centre or on the edge of these centres, should an out-of-centre site be considered. Regarding classification of location for retail development the 2012 Retail Planning Guidelines provides clear guidance as follows:

Table 59 Classification of location for Retail development (Source: RPGs, 2012)

Retail Core Area	That part of a Town Centre which is primarily devoted to shopping.
Centre	For the purposes of these guidelines, a centre refers to a city or Town Centre and can also refer to the centre of a district or Neighbourhood Centre which has been identified in the settlement hierarchy of a Development Plan.
Edge-of-Centre	A location within easy walking distance of the primary retail area of a City Centre, Town Centre or District Centre. This distance should generally not exceed 300-400 metres. The appearance and perceived safety of the connection to edge-of-centre retail and the strength of attraction is also of relevance.
Out-of-Centre	A location that is clearly separate from a Town Centre but within the town development boundary, as indicated in a Development Plan or Local Area Plan.

The Retail Planning Guidelines also provide a classification of the types of retail goods categories, convenience, and comparison. Annex 1 defines each category as follows:

Table 60 Classification of types of retail goods categories (Source: RPGs, 2012)

Convenience	This category includes all supermarkets, smaller convenience stores and retail food outlets (excluding fast food takeaways, restaurants and cafes) serving food, alcoholic and non-alcoholic beverages, tobacco and non-durable household goods.
Comparison Non-Bulky	The list of goods which fall under this category is as follows: clothing and footwear, furniture, furnishings and household equipment (excluding non-durable household goods), medical and pharmaceutical products, therapeutic appliances and equipment, educational and recreation equipment and accessories, books, newspapers and magazines, goods for personal care, goods not elsewhere classified and bulky goods.
Comparison Bulky	While the bulky goods category is listed under the classification of comparison floorspace above, it is considered appropriate to make a distinction within the Retail Study between pure comparison floorspace and floorspace used for the sale of bulky goods.

The Annex 1 definition includes a (non-exhaustive) list of goods which are considered to fall within the bulky goods category as follows: Goods generally sold from retail warehouses where DIY goods or goods such as flat pack furniture are of such a size that they would normally be taken away by car and not be portable by customers travelling by foot, cycle or bus, or that a large area would be required to display them e.g. repair and maintenance materials, furniture and furnishings, carpets and other floor coverings, household appliances, tools and equipment for the house and garden, bulky nursery furniture and equipment including perambulators, bulky pet products such as kennels and aquariums, audio visual, photographic and information processing equipment, catalogue shops and other bulky durables for recreation and leisure.

With regard to the retailing and settlement hierarchy, the Retail Planning Guidelines advocate for the sustainable organisation of retail activity in Ireland to reflect the existing national settlement structure. Taking account of historical patterns, in addition to preceding retail planning policies, the retail hierarchy should reflect the broad tiers of urban development recognising that such a system of classification is indicative only, with scope for overlap between the specific retail functions provided in each tier.

The Guidelines specifies in very exceptional circumstances in preparing retail strategies for larger Gateways like Waterford provide a range of high-order comparison shopping, there is a leeway to introduce a small downward revision to the floorspace cap in appropriate circumstances where the size of existing town centres is small in relation to the scale of the cap, and the potential for convenience goods expenditure growth is limited and where accordingly development of convenience stores up to the full extent of the relevant floorspace cap could have a negative impact on the vitality and viability of the town in question. However, if the planning authority wishes to propose a small downward revision to the floorspace cap the justification should be fully substantiated by an expert study, which would demonstrate how effective local competition and consumer choice would be protected.

The importance of quality urban design is acknowledged in the Retail Planning Guidelines (2012). This is underlined further with the accompanying document, the Retail Design Manual (2012) which sets out key principles of urban design which might form the framework for policies to promote quality design in Development Plans and Local Area Plans. The Design Manual for Urban Roads and Streets (2013) provides additional design guidance for public spaces, seeking to achieve integrated street design within urban areas that is influenced by the type of place in which the street is located and balance the needs of all users.

Given the requirement to protect and preserve Waterford City Centre's historic built architecture, design is a key consideration and one which has and will continue to influence the success or otherwise of planning applications for retail developments. In Waterford City Centre a General Conservation Area has been designated within the city comprising the Viking and Norman City and the later 18th century streets such as The Mall, Parnell Street and O'Connell Streets. Within Waterford City Centre, Trinity and South Quays are categorised as existing Architectural Conservation Areas (ACAs). Any new development that is being considered within the historic core should respect the existing character of the area.

Joint Retail Strategies

The Retail Guidelines refer to the preparation of Joint Retail Strategies at Section 3.5 and set out guidelines in Annex 3. It notes certain Development Plans and Local Area Plans must be informed by joint or multi-authority retail strategies which should assess retail activity and demand needs that transcend Planning Authority boundaries.

To give these strategies statutory backing the policies and objectives of the strategy should be adopted into the Development Plan and Local Area Plan as appropriate or adopted as a variation to a Development Plan. The joint or multi-authority retail strategies for urban areas identified in the guidelines must be prepared or reviewed as appropriate to inform the relevant Development Plan review process.

This Strategy has been commissioned as a Joint Retail Strategy for the Waterford the Metropolitan Area, which includes lands within the administrative areas of both Waterford City and County Council and Kilkenny County Council, while the study area borders the administrative area of Wexford County Council. The analysis and policy recommendations set out in this strategy are based on the comprehensive review of data for both Counties.

Framework for Town Centre Renewal (2017)

The Framework for Town Centre Renewal prepared for the Retail Consultation Forum and published in April 2017 sets out an Action Plan for Town Centre Renewal. The Retail Consultation Forum was established in May 2017 under the Action Plan for Jobs 2017 to provide a platform for structured engagement between the retail sector and relevant Government Departments. The forum is made up of a range of retail sector representatives and industry chief executives as well as public bodies including representatives from all relevant Government Departments.

The Framework for Town Centre Renewal is intended as a blueprint for towns and villages to guide their stakeholders (community organisations, businesses, residents, Local Authority, public agencies etc.) through the key stages of Town Centre renewal, including carrying out a Town Centre health check, preparing a Town Centre Plan, nominating a local business champion, adopting a place making strategy, ensuring strong occupancy and a pleasant visual appearance.

Other elements including securing financial supports for projects, optimising the potential for artisan food and craft supports, adopting a programme of events and promoting via online platforms to reach a wide audience including tourists. The above health checks and Town Centre plans would be community-driven initiatives, which aim to mobilise groups within towns to formulate their vision and action plan.

Health Checks and Town Plans may draw heavily on the content of County Retail Strategies; however, their focus would be wider than retail alone and would examine all the stakeholders and influencing factors for Town Centres. The Figure below identifies the numerous health check indicators outlined in the Framework for Town Centre Renewal:

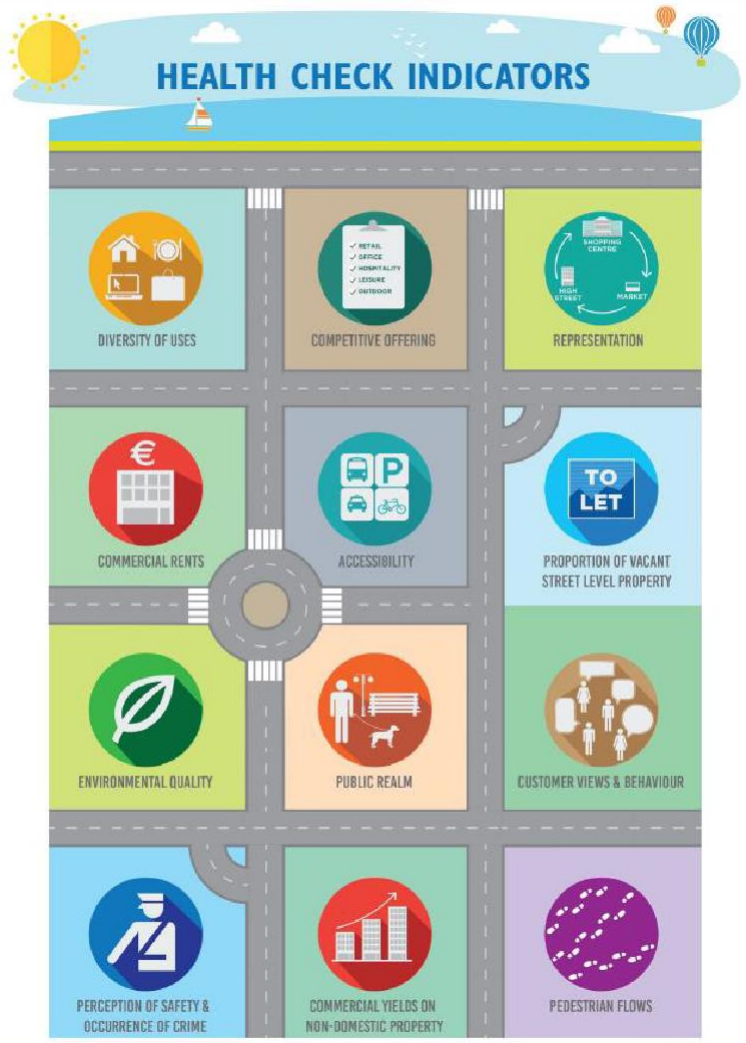


Figure 87: Health Check Indicators (Source: Framework for Town Centre Renewal, DBEI 2017)

Town Centre First Policy (2022)

Town Centre First (TCF): A Policy Approach for Irish Towns was published on 3 February 2022 builds on the foundations of the National Planning Framework and Our Rural Future, represents a new approach to the development of our towns, where local communities and local businesses can be central to reimagining their own towns and planning their own futures. With towns and villages across Ireland facing significant challenges and opportunities that require a coordinated and comprehensive approach, TCF aims to facilitate that response by towns of all sizes across the country so that their centres can function as the sustainable and vibrant heart of the communities they serve, in ways that are adaptable and appropriate to 21st Century needs.

One of the key priorities of this policy includes 'Town Centre First Toolkit' which is a best practice model for developing TCF plans and provides access to all available TCF resources and funding. This toolkit will build on work advanced by the Heritage Council, RGDATA and the Retail Consortium, in collaboration with a number of other stakeholders, which developed and delivered a trans-disciplinary Collaborative Town Centre Health Check Programme (CTCHC).

The policy notes that it is also necessary to assess the impact of development in relation to Town Centre First policy objectives. The planning system currently enables retail impact assessment of large-scale retail development and includes the concept of a 'sequential test' for development or zoning in relation to proximity to the centre of a town.

The policy acknowledges that town and village centres are perceived as less attractive places in which to live or operate businesses. Many traditional town centres have suffered from a decline in retail activity due to the loss of their immediate population base and shifting retail patterns, including an increase in on-line sales. This leads to increased rates of vacancy and can have a major impact on the vibrancy and vitality of a town centre. In response to the international trends, many large retailers are also moving towards a model where shops act more as showrooms for goods to be viewed, ordered, and delivered to home.

Traditional city, town and village centres are in an optimal position to take advantage of the shift toward more blended retailing as many of the non-retail 'experiences' exist in such locations in the form of built heritage, parks and squares, and cultural institutions. Town centres can capitalise on this potential and generate additional footfall through enhanced place making and an appropriate balance between vehicle use and quality public realm. Through engagement with the Retail Forum, the TCF builds on how towns can build on these opportunities through the implementation of this policy.

Portlaw, Co. Waterford has been selected as one of 26 pathfinder towns in the Town Centre First Plan, which will act as demonstrators of the Town Centre First approach and lead best practice to inform the approach for towns that are at an earlier stage in the TCF process. The Draft Town Centre First Plan outlines a vision for Portlaw's future and a series of projects that can be funded under the plan. Being prepared on the recommendations of the Portlaw Community Strategic Plan 2022, the draft town centre first plan aim towards revitalising Portlaw's heritage and amenity while improving the quality of life of residents. It is currently at consultation stage and is being developed through collaboration with the local community and businesses via the Portlaw Town Team.

Urban Regeneration and Development Fund

The Urban Regeneration and Development Fund (URDF) has been established to support more compact and sustainable development, through the regeneration and rejuvenation of Ireland's five cities and other large towns, in line with the objectives of the National Planning Framework and National Development Plan. Through the scheme, €2 billion worth of funding has been made available up to 2027.

Types of projects eligible for funding include, but are not limited to the acquisition, enabling and/or development of areas, sites and buildings, relocation of uses, public amenity works, community facilities and infrastructure related to housing, economic or skills development (including enterprise and tourism), transport, services infrastructure and/or transition to a low carbon and climate resilient society, in an urban context.

Bid proposals must be co-funded and will require a minimum 25% stakeholder contribution. Bids must also demonstrate a further requirement for 100% (euro-for-euro) leveraging of committed wider private sector investment (i.e., development) arising from fund expenditure.

Funding Allocation for the Waterford Metropolitan Area

WCCC have received €80,600,000 and €30,000,000 under Urban Regeneration Development Funding by the Department of Housing, Local Government and Heritage and National Transport Authority Funding from the National Transport Authority respectively. These funds will be key in carrying out the infrastructural developments within the North Quays Strategic Development Zone.

The Urban Regeneration Development Fund was established primarily to support the compact growth and sustainable development of Ireland's cities and large urban areas. Waterford's role as an important driver of national growth and a regional city of scale is identified in the National Planning Framework and confirmed in the Regional Spatial and Economic Strategy for the Southern Region and recently adopted Waterford City Metropolitan Area Strategic Plan 2020.

The North Quays project is the largest commercial development in Waterford and currently the largest urban regeneration project in the Country. The combined private and public investment in the project is estimated at over €500m, with the private development delivering nearly 2,300 full time jobs by 2023

and with the creation of a further 4,500 indirect jobs in the community. Waterford's economy is anticipated to grow by 7% and this will result into a 1.5% growth to the wider Southeast economy.

Visitor numbers to the region are expected to increase with the creation of a flagship visitor's centre in the heart of the North Quays that can cater for one million visitors. The provision of high-quality office space and complimentary facilities will increase the attractiveness of the region for foreign investment. This will, in turn, leverage increased economic activity for local business and the local economy.

The North Quays project will act as a catalyst for the development of commercial and residential land with direct sustainable access via the greenway to the City Centre and intercity locations allowing for active travel and associated health benefits, journey time saving, modal shift to more sustainable transport and reduced emissions. This plan led, holistic and sustainable approach to development is in line with current Government policies and the National Planning Framework. It will ensure the South act as a key enabler into the future for Waterford City and the wider region.

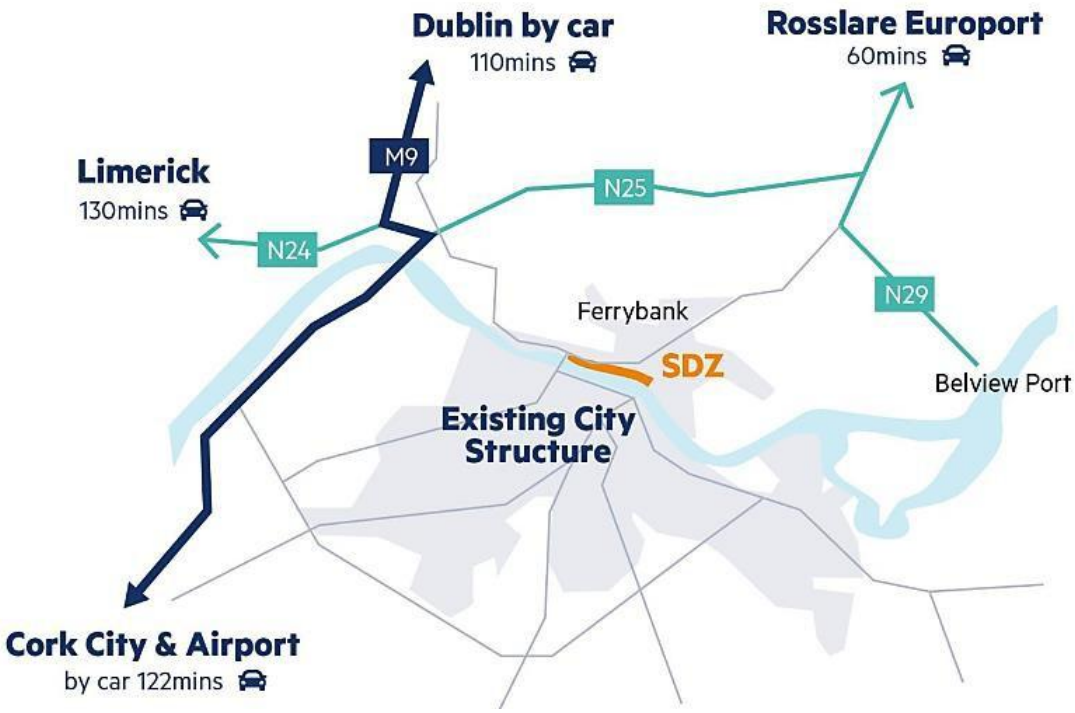


Figure 88: Waterford North Quays connectivity (Source: waterfordnorthquays.ie)

Figure 89: Waterford North Quays project area (Source: waterfordnorthquays.ie)

Report of the Night-Time Economy Taskforce

The Report of the Night-Time Economy Taskforce was published by Government in September 2021. It presents innovative solutions to some of the challenges and opportunities for the retail sector in Ireland which has been badly hit by COVID-19. The Night-Time Economy is multi-layered, covering a range of sectors and stakeholders with a diverse offering including cultural activity, entertainment, hospitality, festivals, sport and retail activity, with the aim of providing a safe and secure space to work and/or socialise between 6pm to 6 am. Ireland's cities and towns are uniquely engaging places to live, explore and work in at night; offering a wide range of experiences that appeal to all ages and interests; and are easy to access no matter the hour. Hence, the vision of the Night-Time Economy is supported by a cohesive policy and legislative environment which enables the creation of vibrant and inclusive night-time experiences that are appropriate to their character and embraced by all local stakeholders.

It highlights diversity and inclusivity as two key components of the Night-Time Economy in Ireland. Diversity is linked to choice, whereas inclusivity talks about create a diverse and appealing Night-Time Economy. Enhancing and using Ireland's public realm in imaginative way is a recurring theme of the Night-Time Economy force. The Taskforce welcomes the schemes contributing towards the public realm of the country and recommends a coordinated approach to planning and alignment of spend to fund high impact, best-in-class initiatives that have the potential to positively impact the NTE. A more planned and integrated approach to the development and operation of the NTE includes new pilot project establishing NTE Advisors and committees in six cities/towns across Ireland, development of a new guidance to enable local authorities plan for an effective and vibrant NTE, reviewing Noise Regulations, and standardising event planning system across Local Authorities. A modernised regulatory regime is going to be established for the NTE which will introduce interim measures to ease pressure on businesses, include reduction of SEO fees, increase the capacity of outdoor dining and entertainment. A major reform of the licensing laws is scheduled to be implemented which will support the culture and hospitality sectors and modernise and diversify the NTE offerings.

It highlights that extensive late-night public transport plays an essential role for further development of the Night-Time Economy. The Taskforce believes that 'more 24-hour options' should extend to the Evening and Night-Time Economy where it can not only respond to demand but serve to stimulate activity by providing access to and from cities or towns. The taskforce's another area of emphasis is public safety and security. Safeguards to be put in place to protect women and other vulnerable people engaged in Night-Time Economy activities and best practice safety campaigns for promoting across businesses operating in the Night-Time Economy is to be implemented across the country.

A further significant step would be to establish supports for longer term measures. The Taskforce recognises the importance of solutions and ideas coming from the ground up with interventions to

stimulate Night-Time Economy activity being based on needs of the town/city area identified as part of detailed local planning.

In the framework of this report, the Taskforce has made an effort to explore a variety of the potential and issues related to the night-time economy. It has been recognised, even though that numerous of the issues and proposals surrounding them are complicated and will require time to develop and implement. Moreover, the Night-Time Economy is inherently dynamic and subject to constant change. Over time, new initiatives may inevitably arise, and it may be essential to adopt new policies in response.

Regional Planning Context

The following section outlines the regional policies, which guide retail planning in Ireland. It includes the overarching regional plans and strategies as well as setting the regional settlement hierarchy including a classification of settlements in the Waterford Metropolitan Area. Analysis is included of the implications of these policies for retail planning in region.

Regional Spatial and Economic Strategy for the Southern Region

The Regional Spatial and Economic Strategy (RSES) for the Southern Region is a high-level document with the overarching aim of supporting the implementation of the NPF. It provides a strategic framework through which the policies and objectives of the NPF are delivered over a twelve-year period. As such, it will address spatial and economic issues around population growth, housing, employment, industrial and commercial development, retail development and the identification of regional strengths and opportunities for growth.

The RSES promotes a co-ordinated, co-operative and collaborative approach between each of the Cities and Key Towns within the region through the establishment of Metropolitan Area Strategic Plans (MASPs) for Cork, Limerick-Shannon and Waterford Metropolitan Areas and the identification of several Key Towns.

The central key objectives are to support the “Town Centre” first approach in the context of the retail hierarchy and promote the vitality and viability of existing centres by focusing development in them and encouraging a wide range of services, in a good environment which is accessible to all.

Waterford Metropolitan Area Spatial Plan

The Metropolitan Area Spatial Plan (MASP) provides a high-level strategic framework for the sustainable development of the Waterford Metropolitan Area based on the ambition for the City and Metropolitan area as an innovative centred, enterprising, University City with a diverse population, a vibrant cultural sector, a thriving economy, and a significant and substantial profile that brings European and International recognition.

The Waterford Metropolitan Area is located around Waterford Harbour and the River Suir. It is centred on the City of Waterford and its suburbs with an extensive rural area beyond the built-up area which includes a number of small rural settlements such as Passage East, Cheekpoint and Slieverue.

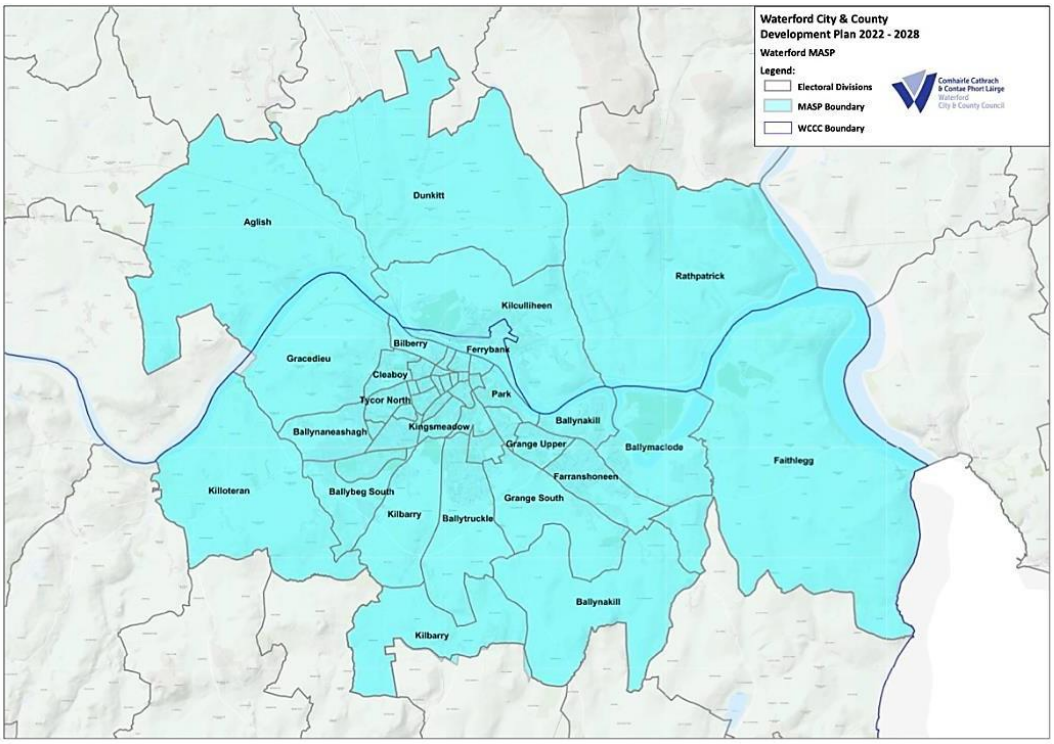


Figure 90:Waterford Metropolitan area (Source: Waterford City and County Development Plan 2022-2028)

Waterford MASP Policy Objective 1:

It is an objective to promote the Waterford Metropolitan Area as a cohesive metropolitan area with the city centre as the primary location at the heart of the metropolitan area and region.

The joint retail strategy will aim to increase the profitability of the county and deliver greatest possible consumer experience.

Waterford MASP Policy Objective 2:

It is an objective to support the role of the Waterford Metropolitan Area as a primary economic driver for the Southern Region in conjunction with the Key Towns of Carlow, Clonmel, Dungarvan, Kilkenny and Wexford, to strengthen inter-regional and intra-regional connectivity.

Waterford MASP Policy Objective 6 (a):

It is an objective to achieve the National Strategic Outcomes for Regeneration through:

Regeneration, consolidation and growth of the City Centre, Cultural Quarter, and suburbs. As well as delivery of the North Quays Innovation District SDZ regeneration project for integrated sustainable development through the provision of supporting transport infrastructure and services. Lastly, through regeneration, consolidation, and growth of strategic residential, employment and nodal locations along public transportation corridors.

Waterford MASP Policy Objective 7: Regional Connectivity

It is an objective to support the development of improved Regional Connectivity through development and maintenance of strategic transport infrastructure to support the sustainable development of Waterford and the South-East subject to the outcome of WMATS where applicable, appropriate appraisal, environmental assessments and the planning process.

Waterford MASP Policy Objective 12: A Smart Metropolitan Area and Strengths in Attracting FDI

It is an objective to seek investment in the sustainable development of initiatives of IDA Ireland and Enterprise Ireland in strengthening enterprise assets, fostering competitive locations and conditions for enterprise growth in the Waterford Metropolitan Area. It is an objective to implement and develop novel technologies, build a sustainable knowledge base and engage citizens in digital transformation, while minimising the risk of digital inequalities in the Waterford Metropolitan Area.

Waterford MASP Policy Objective 18

It is an objective to support investment in infrastructure, to maximise the potential of tourism subject to the outcome of environmental assessments and the planning process. It is also an objective to support the Waterford Metropolitan Area as a tourism destination.

Retailing supports the considerable investment by the public and private sectors in urban renewal, by providing shopping facilities to residents and by adding to the vitality and attractiveness of inner areas of cities and towns which is important also in the context of the tourism sector.

Waterford MASP Policy Objective 19: Retail

The Joint Retail Strategy shall include the defined area of the Core City Shopping Area, the location of Suburban or District Shopping Centres and a map to indicate sustainable travel routes to/from each shopping area.

It is an objective to protect and enhance customer experience of visiting Waterford City Centre through facilitating a mixed expansion of services including high order comparison retailing in conjunction with service, cultural and entertainment facilities in the wider City Centre.

The Joint Retail strategy will review the future use of the Ferrybank and Ross Abbey Shopping Centre and ensure that any future uses should be cognisant of the role of Ferrybank in the context of Waterford City, the north quays, and the region as a whole.

The Ferrybank neighbourhood is divided between two local authorities, with the electoral division of Ferrybank located in Waterford City and the Kilculliheen electoral division located in County Kilkenny. Ferrybank neighbourhood is served by an area of lands identified on the zoning map as general business which currently accommodates a number of local retail and commercial services.

A site within the Ferrybank neighbourhood, is designated as a District Centre. A mixed-use development has been constructed on this site providing for comparison and convenience retail, retail warehousing and more.

Waterford faces similar challenges to other large urban centres due to the increased spend on online retailing. The Retail Planning Guidelines published in 2012 states that ‘Joint or Multi-Authority Retail Strategies must be prepared’ for urban areas and identifies Waterford and Kilkenny, Tipperary and Wexford as the planning authorities which should participate in the preparation of the Joint Retail Strategy.

The MASP will support the continued public realm improvements to the city centre including development of a more walkable city centre, improved access by public transport including development of the new transport hub and development of digital technologies to support and attract consumers to a unique retail experience.

The objective of this Strategy is to address the requirement in Policy 19 to prepare a Waterford Metropolitan Area in accordance with the Retail Planning Guidelines.

Waterford Metropolitan Area Transport Strategy

The Waterford Metropolitan Area Transport Strategy (WMATS) sets out the framework for an accessible, high-quality and integrated transport network that provides for the travel demand and supports the sustainable growth of the Waterford Metropolitan Area as a major growth engine of the Southern Region, and an internationally competitive European City Region as envisaged by the National Planning Framework 2040.

WMATS is a metropolitan area-scale plan, which is directly informed by National and Regional Level policies; in particular, by the Regional Spatial and Economic Strategy (RSES) for the Southern Regional and the Waterford Metropolitan Area Strategic Plan (MASP).

It is informed by the following key national policy documents: the National Planning Framework 2040 (NPF), the National Development Plan 2021-2030 (NDP), the National Investment Framework for Transport in Ireland (NIFTI) and the recently published National Sustainable Mobility Policy (NSMP). A detailed review of the WMATS is presented in Chapter 6 of this report.

Kilkenny Retail Strategy 2021-2027

Kilkenny Retail Strategy set out clear, evidence-based objectives and policies related to the level and form of retailing activity appropriate to the various components of the settlement hierarchy in County Kilkenny and presents a comparative review of Kilkenny City with other major competing centres.

Kilkenny City sits at the top of the hierarchy as a major town centre / county town. Ferrybank is included at the second tier as a district centre, the tier above the remaining district towns of Callan, Castlecomer, Graiguenamanagh and Thomastown.

Kilkenny City Centre offers an appropriate range and quality of retail to ensure that trade is not drawn to regionally competing centres, most notably Portlaoise, Waterford, Carlow, Clonmel and Wexford, which are amongst the biggest competitions to the existing retail offer in County Kilkenny. These centres offer a good range of retail facilities and generally have an attractive setting.

The four district town centres focus on the provision of local shops and services. The district towns in Kilkenny have a lower proportion of comparison good stores in compared to other Irish towns, however, Kilkenny City is the major comparison goods destination in the county. The Retail Core Area of Kilkenny City Centre comprises of 450 units, whereas other in other four district towns, the units are 40-70. Graiguenamanagh is facing a high vacancy rate of 32.7%.

County Kilkenny consists of small settlements like Knocktopher, Glenmore and Kells which offer very limited shops and comprises of no more than 10 units. There is also a large retail park (also known as Out of Centre Retail) on the outskirts and south of the city. In addition to the retail park, there are a number of local neighbourhood centres located within the bounds of Kilkenny.

The Retail Strategy finds that there is negative capacity for convenience and bulky goods floorspace up to 2027. The plan identifies spending capacity to accommodate -353 sqm and -5041 sqm. of net retail convenience and bulky goods floor area up to 2027 across the County. However, it identifies that there is capacity for 14,986 sqm comparison goods floorspace up to 2027.

Wexford Retail Strategy 2021-2027

County Wexford borders Waterford towards the north-east. The current retail strategy for County Wexford features in volume 8 of the Wexford County Development Plan 2021-2027. The Wexford Retail Strategy aims towards creating the appropriate conditions necessary to foster a healthy and vibrant retail environment in County Wexford over the Development Plan period of 2021-2027 and beyond with recommendations to help improve the retail environment and enhance the vitality and effectively manage and support change.

Wexford Town is the primary retail centre in the County. The towns of Enniscorthy, New Ross and Gorey are located in Level 2 of the retail hierarchy which accommodates Large Sub-Regional towns.

New Ross Town is the closest large town to County Waterford and its success as a retail centre has implications for County Waterford. New Ross Town is classified as Level 2: Large Sub Regional Town including ‘Large to Medium scale convenience and medium scale comparison’. New Ross has 22% of the overall retail floorspace within the four main towns which accounts for 31,177sq.m., with the largest offering bulky goods retail floorspace in the County (35% of the total County Bulky goods provision).

Each of the towns has a small supermarket, alongside a level of comparison shopping. Villages and rural settlements are the final tier in the retail hierarchy. Their main function is to serve localised residential areas. They include small shops usually associated with petrol filling stations and post offices.

The Retail Strategy finds that the existing convenience, non-bulky comparison, and bulky comparison Retail Floorspaces are 46,802 sqm, 59,036 sqm, and 37,789 sqm in County Wexford. As of 2020, the total net Retail Floorspace recorded for County Wexford is 143,627 sqm. For convenience goods, Enniscorthy and Wexford are the only two catchment areas which exhibit an immediate residual capacity whereas for comparison goods (both bulky and non-bulky) Enniscorthy and Gorey exhibit an immediate residual capacity. Countywide, the additional Retail Floorspace available till 2027 for convenience, non-bulky comparison, and bulky comparison retail are 12,100 sqm, 8,590 sqm, and 975 sqm respectively.

Cork Retail Strategy 2022-2028

The current retail strategy for County Cork features in chapter 9 of the Cork County Development Plan 2022-2028. A Draft Joint Retail Strategy and Study for Metropolitan Cork is in the process of being prepared currently.

The retail hierarchy for the county in Cork County Development Plan 2022-2028 has in part been informed by the 2013 Joint Retail Strategy in relation to floorspace projections, Cork County Council will continue to take into account the floorspace potential figures agreed in the 2013 Joint Retail Strategy and included within the 2014 Cork County Development Plan until such time as a new Joint Retail Strategy is finalised for the Metropolitan Area.

Cork City Centre is the principal retail centre of the Southwest Region, particularly for higher order comparison goods and is positioned at the top of the retail hierarchy. The towns of Mallow and Clonkality are located in Level 2 of the retail hierarchy which accommodates key towns and performs an important function in the North and West of the County. It is noted that the comparison-shopping function of the city centre has to be protected and retail floorspace devoted to ancillary products should not exceed 20% of the total net retail floorspace.

The plan identifies spending capacity to accommodate up to between 90,000 and 100,000 sq.m. of net retail comparison floor area up to 2023 of net retail comparison floor area up to 2023 within the wider catchment. In relation to Convenience floorspace within the Metropolitan Area, the distribution will be in accordance with planned population growth.

The indicative convenience floorspace potential for the Cork Metropolitan Area up till 2022 was projected to be 43,173 sqm.

Tipperary Retail Strategy 2022-2028

The current retail strategy for County Tipperary features in chapter 7.3 of the Tipperary County Development Plan 2022-2028. The location of new retail development in town centres where it is easily accessible by public transport, and on foot, is a key component of this policy approach. The Council recognises the role of retail quality and choice in settlements, both in meeting local shopping needs, and in contributing to the viability of town centres and the wider economy. The Strategy aims to ensure that an appropriate range and quality of retail is provided so that trade is not drawn to Limerick, Cork and Waterford.

Clonmel is the primary retail centre providing high quality convenience and comparison retail in the County as well as beyond its immediate catchment. The sub regional towns in the county includes Nenagh and Thurles which service a large rural catchment in Limerick Shannon region and is not expected to compete with each other or Clonmel. District towns in Tipperary consist of Carrick on Suir,

Roscrea, Tipperary, Cashel, Cahir and Templemore. shopping centres. There are established central areas with varying levels of retail vacancy and the strengthening of and environmental improvement of these will be a priority. Carrick on Suir is located as a close proximity to County Waterford. There are established central areas with varying levels of retail vacancy and the strengthening of and environmental improvement of these will be a priority.

Local Policy Context

The following section outlines the primary local policy that guides retail planning for the Waterford Metropolitan Area.

Waterford City and County Development Plan 2022-2028

The Plan has been prepared by the Waterford City and County Council Planning Authority and covers the whole local authority area for a six-year period from 2022-2028.

The Waterford Metropolitan Area Strategic Plan (MASP) recognises that Waterford is the largest urban centre in Ireland's South-East, and the State's fifth largest city. The vision for the Waterford MASP is to develop a concentric city, north and south of the river, based on the guiding sustainable growth principles established in the Waterford Planning, Land-use and Transportation Study 2004-2020 (PLUTS).

The Waterford MASP has identified a number of strategic goals which targets towards achieving future expansion, economic growth, social inclusion, carbon neutrality, and compact growth in Waterford.

The Strategic Objectives for Waterford City and MASP are outlined below:

- "Plans for and deliver a future for Waterford City as envisaged in the NPF, Waterford PLUTS and Waterford City MASP where Waterford fulfils its role as the Regional City and home to the Southeast Technological University."
- "As a leading member of the MASP implementation body, in collaboration with the Southern Regional Assembly, Kilkenny County Council, State and other agencies/stakeholders, we will implement the priorities and objectives of the Waterford MASP to support the critical mass required for Waterford City to function as a regional city of scale in support of the broader southeast region".
- "We will identify investment priorities to deliver the concentric city model founded on the principle of transport-orientated and infrastructure led development."

Waterford City is a key asset for Ireland in terms of its location, ability to compete national and internationally and capacity to grow and to relieve pressure on Dublin and surrounding counties.

The Policy objectives relevant to Waterford City and MASP are as follows:

W City 22 - MASP Implementation:
"Plan for, and deliver, the concentric city envisaged in the Waterford PLUTS and Waterford City MASP, as a leading member of the MASP implementation body, in collaboration with the Southern Regional Assembly, Kilkenny County Council, and other principal stakeholders with regard to governance and implementation, service and infrastructure delivery."

W City 09 – Vibrancy and Vitality: Land Use Mix Policy Objectives

''In the interest of vitality and viability of the city centre and the delivery of a vibrant diverse community and mix of uses across the city centre we will:

- Manage the spread of uses that could lead to a reduction in the attractiveness of, and the retailing function of the principal shopping streets.
- Promote and support the provision of retail, service and employment uses across the city centre in order to enhance its commercial resilience and vitality and the experience of visitors and

residents alike while managing the extent of retail and commercial developments, of a type and scale which are more appropriate to the City Centre, outside the central area;

- Promote and enhance the evening economy in the City Centre with a view to enhancing the function of the broader City Centre area in this regard.
- To adhere to the principle of the primacy of the City Centre as set out in the Retail Planning: Guidelines for Planning Authorities 2012 (DOECLG) and the Waterford City and County Retail Strategy; and,
- Facilitate where appropriate "meanwhile uses" and temporary uses of vacant or underutilised properties/opportunity sites where such uses are consistent with the proper planning and sustainable development of the area.''

W City Retail 03 – Primacy of City Centre

''To affirm, maintain and protect the status of Waterford City Centre's Retail Core Area as the primary shopping area for high and medium order retail goods in the Southeast Region, affording a variety and mix of shopping, cultural and leisure attractions.''

W City Retail 04 – City Centre First Approach/ Sequential Approach

''The retail core area will form the main focus and preferred location for new retail development. The Council will apply the sequential approach to retail development proposals outside the city centre retail core area. Edge of centre sites or out of town centre sites will only be considered when it has been clearly demonstrated that all suitable available and viable sites in the city retail core area/ suburban district centres have been fully investigated and considered in accordance with the Retail Planning Guidelines and in particular the sequential test.''

The Development Plan and core strategy will give support through relevant policy objectives to enable the delivery of the key growth enablers and the transformational change required across Waterford City as envisaged in the NPF, RSES and MASP. Waterford City and County Council will implement the NPF, RSES and MASP through the Development Plan strategies and policy objectives over the period to 2028 and pursue specific project investment through the National Development Plan, the Urban Regeneration Development Fund and other available funding mechanisms.

Kilkenny County Development Plan

This Development Plan sets out Kilkenny County Council's policies and objectives for the proper planning and sustainable development of the City and County from 2021 to 2027.

Waterford is the largest urban centre in the South-East and the State's fifth largest city and is unique in having a network of large and strong urban centres in close proximity. It has a diverse industrial and commercial base and has the fifth largest employment base in the State.

The metropolitan area extends beyond the physical built up area into a defined metropolitan area extending to County Kilkenny and County Waterford. Ferrybank and Belview Port is included in the Waterford Metropolitan Area Strategic Plan (MASP) area and although located in Kilkenny, will be developed as part of an agreed Waterford Metropolitan Strategy.

The vision for the Waterford MASP area is to develop a concentric city both north and south of the River Suir with services appropriate to its status as one of the five national cities and recognising the people of the area as the heart of its potential.

Kilkenny County Council is committed to developing Ferrybank/Belview as part of a concentric city as envisaged in the Waterford MASP and remains conscious of maintaining the area's social, cultural, sporting and political identify into the future.

Objective 4I: “To commence the review of the Ferrybank/Belview Local Area Plan within 6 months of the coming into effect of this Plan having regard to the MASP and to incorporate into the Kilkenny City & County Development Plan by way of variation.”

The Port of Waterford is located at Belview, approximately 5km east of the City Centre in County Kilkenny which is also included. The Waterford MASP area encompasses an area of 143sq.km of which 85.05sq.km is in Waterford City and County Council and 57.60sq.km is within Kilkenny County Council’s administrative area.

Regional Planning Objective 164 and Waterford MASP Policy objective 6 (a) aims to develop a Metropolitan Area Transport Strategy (WMATS) for the Waterford Metropolitan Area with the NTA, TII, Local Authorities and the relevant stakeholders, integrating priorities for the Metropolitan Area identified by the RSES and support investments in actions under this strategy. Kilkenny County Council supports this aim of the RSES and will facilitate the improved integration of the Ferrybank area of the MASP into the Waterford Metropolitan Transport Area whilst adhering to the principles of the concentric city model.

The Transport Strategy will see the development of sustainable travel options to support and facilitate improved access to the Waterford City Centre, from the wider urban area, north and south of the river by walking, cycling and public transport including provision for Park and Ride facilities in tandem with the Green Route, and additional cycle lanes.

12Q: “To, in combination with Waterford City and County Council, the NTA, TII and other stakeholders, undertake a Metropolitan Area Transport Strategy in accordance with Waterford MASP Objectives 6 (a) and 6 (b), covering the Waterford MASP area of County Kilkenny and to implement the adopted strategy to guide investment priorities in accordance with Waterford MASP Objectives 3.”

12R: “Support the improved regional connectivity of Kilkenny with Waterford and the South East Region generally through the development and maintenance of Strategic Transport Infrastructure in accordance with Waterford MASP Objective 7 and to prioritise transport investment accordingly.”

Kilkenny County Council will co-operate in the development of a high-quality bus-based public transport system in the Waterford MASP area and in the identification of an optimum site for a Park and Ride facility. This will be reviewed in the Waterford Metropolitan Area Transport Strategy, in conjunction with the National Transport Authority, Kilkenny County Council and Waterford City and County Council.

Retail Objectives:

5P: To ensure that the synergies between tourism and retailing are taken advantage of.

5R: To enhance and promote the vitality and viability of Kilkenny City Centre, and to support the centre’s role as the dominant retail destination within the County.

5S: Promote Kilkenny City Centre as a shopping destination that is competitive with other comparable shopping destinations in the South East and further afield.

5U: To ensure a town centre approach is adopted for all future retail development across the County, whereby the order of priority for the sequential approach will be City and Town Centre sites first, then edge-of-centre sites, and then out of centres sites.

5Y: To promote investment in Place making and high-quality public realm through new development and the enhancement of existing public realm in the city as well as throughout the County’s centres. The aim is to provide more attractive and vibrant urban centre and village locations, supporting retail activity and the wider commercial economy of our settlements and thereby increase footfall.

5Y: Promote the adaptive reuse of existing units as a priority ahead of developing sites for additional floor space, unless there is a demonstrated need.

5Z: A Joint Retail Strategy shall be undertaken between Kilkenny County Council and Waterford City and County Council for the area covered by the Waterford Metropolitan Area Strategic Plan (MASP) in

accordance with the retail guidelines of the RSES and to carry out the Joint or Multi-Authority Retail Strategy for the Waterford Metropolitan Area within 12 months of the coming into effect of this Plan.

Kilkenny City sits at the top of the hierarchy as a major town centre/key/county town while Ferrybank is included in the second tier as a district centre.

Policy 2: Retail Hierarchy

Development in the County's centres should be of a type, size and scale appropriate to the centre, having due regard for the retail hierarchy and the appropriate level of development at each tier.

Policy 15: Joint Retail Strategy

In co-operation with Waterford City and County Council, develop a mechanism and deliverable timelines to carry out a joint Retail Strategy with Waterford City and County Council for the area covered by the Waterford Metropolitan Area Strategic Plan (MASP) in accordance with the Retail Guidelines and Waterford MASP policy Objective 19 of the RSES within 12 months of the coming into effect of this Plan.

The Ferrybank Belview Local Area Plan (2017) recognises the relationship between nearby Waterford City Centre and Ferrybank. The designated district centre has remained unoccupied for retailing since it was constructed in 2009. It currently houses a branch library and the Council Area Office.

Waterford City Retail Strategy 2012-2019

The aim of the Retail Strategy is to ensure that Waterford City fulfils its role as the principal retail destination in the County and also its wider regional role as the key gateway for the South East Region. Waterford has an overall vibrant and attractive City Centre. The main shopping streets have a pleasant shopping environment; however, it is noted that there are parts of the city that would benefit from rejuvenation and investment in maintenance of public pavements and the public realm.

Waterford has in general a good array of multiple representation, the city does not have the level of such retailer representation compared to other gateway Cities such as Limerick, Galway and Cork. Waterford is underperforming in this regard and its retail profile is not commensurate with its status as a Gateway City. Hence, there is clearly a scope for improvement to strengthen the city's retail core to compete effectively with its counterparts and develop a retail profile that is in line with its Gateway status.

Table 61 Waterford Retail hierarchy (Source: Waterford City Retail Strategy 2012-2019)

Level	Centres
City (Level 1)	The City Centre
District Centre (Level 2)	Ardkeen, Farronshoneen, Lisduggan, The Inner Relief Road/Tramore Road, Abbeylands in the northern environs in County Kilkenny
Neighbourhood Centre (Level 3)	Cleaboy, Kilcohan, Ballinakill, Proposed sites in Knockboy, Carrickphierish, Ballybeg
Other hierarchies include Corner Shops and Retail Warehousing.	

The city is well served by District Shopping Centres, including: Ardkeen/Farronshoneem, Lisduggan, The Inner Relief Road/Tramore, and Abbeylands. Most of these shopping centres are in a good shape except Lisduggan which has a poor retail environment. A significant retail scheme known as Ferrybank shopping centre has been permitted in Abbeylands to the north of the city in the administrative area of Kilkenny County Council. It is notable that this scheme although fully constructed, is vacant at present and its future is uncertain. It essentially serves the catchment area of Waterford City. It is noted that the

Ferrybank/Belview Local Area Plan (2009) has designated Ferrybank Abbeylands SC as a 'Gateway Suburban Centre' a level above District Centre, however, Gateway Suburban Centre is not defined in the Retail Planning Guidelines and this designation is not in accordance with the hierarchical definitions as set out in the RPG's. The centre is also permitted to expand by a further 3000 sq.m which is inappropriate in the context of the level of retail floorspace already permitted at the centre and the relationship of the Centre to Waterford City Centre.

It will be important to maintain the existing district centres in Waterford City at an appropriate scale and level to ensure that the primacy of the City Centre is retained and to ensure that these centres provide a more localised and lower order shopping role for the city.

There are three dedicated neighbourhood centres serving the Waterford City suburbs, which are: Cleaboy, Kilcolan, and Ballinakill. Waterford is well served by retail warehouse development. The Buttlerstown Retail Park is the only fully developed retail park in the city but is not fully occupied.

The Retail strategy estimates that by 2022, it is anticipated that there is a total capacity for 5,647 sq. m. of convenience floorspace and between 33,685 and 38,490 sq. metres of comparison floorspace. There is no requirement for additional retail warehouse floorspace within the catchment up to 2022.

Waterford City must ensure that an appropriate range and quality of retail is provided to ensure that trade is not drawn to regionally traditional competing centres, most notably Wexford, Kilkenny, Tramore, Dungarvan, Carlow, Carrick-on-Suir, New Ross and Clonmel. Kilkenny is a significant competitor to the city and Waterford needs to enhance its retail offer in order to compete more effectively with Kilkenny. This Joint Retail strategy will be a key to support Waterford's retail while balancing it out against Kilkenny's retail offerings.

Kilkenny County Retail Strategy 2021-2027

The Kilkenny Retail Strategy focusses on Kilkenny City as the primary retail destination within the County, however, also considers retailing in the four district towns of Callan, Castlecomer, Graiguenamanagh and Thomastown, as well as Ferrybank.

Ferrybank is located in the far south of Kilkenny County and borders with Waterford County. On the basis of the anticipated growth in the area, Ferrybank's vacant Shopping Centre designated as District Centre in Retail Hierarchy, a tier above the remaining district towns of Callan, Castlecomer, Graiguenamanagh and Thomastown. However, the Retail strategy also notes that Ferrybank does not meet the criteria for a district centre at the current time as it straddles the boundary between Kilkenny and Waterford and this joint retail strategy must reassess its hierarchy.

The area is served by a small number of local shops, many of which are within Waterford County Administrative area. Ferrybank consist of 26 retail units and two vacant shopping centres which includes Ferrybank Shopping Centre and Ross Abbey Shopping Centre. The unoccupied Ferrybank development has a gross floor area of over 34,000 sq. metres with a net retail floor area in excess of 7,000 sq. metres. At present, Mr. Price is the only operational store in Ross Abbey Shopping Centre. The strategy highlights that the two shopping centres could be considered as major development opportunities. Ferrybank is a small commercial area with retail offering being local in nature, particularly for doing grocery shopping. Aldi is the biggest convenience retail on the north of River Suir. The main retail offerings in the area are along Fountain Street and other disjointed shops and services extend up to Aldi on Belmont Road.

In 2015 Waterford Council sought SDZ designation for the North Quay Area of the Waterford City, which is expected to enhance and transform Waterford with major knock-on effects for Ferrybank and Kilkenny County. To promote the vitality and viability of Ferrybank, the retail strategy outlines some recommendations specific to Waterford MASP area:

- ''Continue to engage with Waterford City and County Council in the support of sustainable retail provision in the Ferrybank area, and in particular, as the North Quay Area comes forward for development.''

- ''With the proposed link road between Belmont and Abbey Road likely to come forward in the near future, Ferrybank has the potential to be an important retail location. Work with the ownership and management of the vacant shopping centres to formulate a strategy to bring the shopping centre into use as a shopping centre. Or alternatively if considered unviable, then consider how the shopping centre could be repurposed for alternative uses. Options that may be considered include residential, leisure or performing arts.''

In addition, the retail strategy notes policies as part of the overall Kilkenny County Development Plan 2021-2027 to ensure that all development within the County is carried out in keeping with the ideals of sustainable development. The policies and objectives with regard to Waterford MASP area are following:

Policy 2: ''Retail hierarchy Development in the County's centres should be of a type, size and scale appropriate to the centre, having due regard for the retail hierarchy and the appropriate level of development at each tier.''

The policy suggests Ferrybank to be classified as ''Smaller towns and villages'' while noting that the entry for Ferrybank is purely indicative as the centre partly sites within the Waterford CCC area and would need agreeing with Waterford CCC in due course.

Objective 15: ''A joint Retail Strategy shall be undertaken between Kilkenny County Council and Waterford City and County Council for the area covered by the Waterford Metropolitan Area Strategic Plan (MASP) in accordance with the retail guidelines and RSES.''

North Quays SDZ Planning Scheme 2018

The North Quay Area of Waterford City received an SDZ designation in 2015. The total area of SDZ is 8.23 hectares and consists of underutilised former commercial docks under River Suir. The SDZ site has a very significant presence in Waterford City, forming part of the City Centre and being visible from the main northern approaches to the city as well as from the City Centre and South Quays.

The SDZ designation and Planning Scheme draw on a series of previous studies of the North Quays. The Architectural Service of the Office of Public Works (OPW) prepared a Development Vision for the North Quays in 1998. The Waterford Urban Design Framework Plan for the North Quays (2008) built on the 1998 OPW Study setting out a vision for the redevelopment of the area including a new bridge to provide easy access to the bus station and the core shopping area in the City Centre.

The redevelopment of North Quays aims towards redefining the City Centre and under this planning scheme a sustainable transport bridge is to be provided which will provide necessary connectivity and create a more central focus from City Centre under PLUTS (Planning and Land use Strategy). The area adjacent to the sustainable transport bridge landing is the area of highest activity and footfall and will be the preferable location for retail development. The concentration of retail development in this central area will also maximise connectivity with the existing City Centre shopping areas and form part of the extended retail spine from Michael Street through to Barronstrand Street and across to the North Quays. The Scheme envisages the North Quays developing as a transport hub facilitating the mixed-use development on the North Quays but the entire city. The development of the North Quays area presents an opportunity, long acknowledged as being necessary, for the City to relocate the train station from its present isolated location to the west of Rice Bridge into the City Centre.

The principal goals of the Planning Scheme include, inter alia:

- *"To create a strong and **complementary extension** of the City Centre.*
- *To form a sustainable, smart connected **urban area of regional significance** acting as a **gateway to the city**.*
- *Provide a dynamic new **economic engine** for the City and Region.*

- *To promote the **expansion of the City Centre** to the north of the River Suir in a manner that enhances and supports balanced and sustainable growth in Waterford City and **encourages its vitality and viability.***
- *To link the north and south side of the city by providing a new **sustainable transport bridge crossing** and improve accessibility and connectivity by creating an environment that facilitates internal **pedestrian and cycle movements**.*
- *To provide a rich and diverse mix of uses where a **sustainable balance of retail, working, living and recreation** can be achieved."*

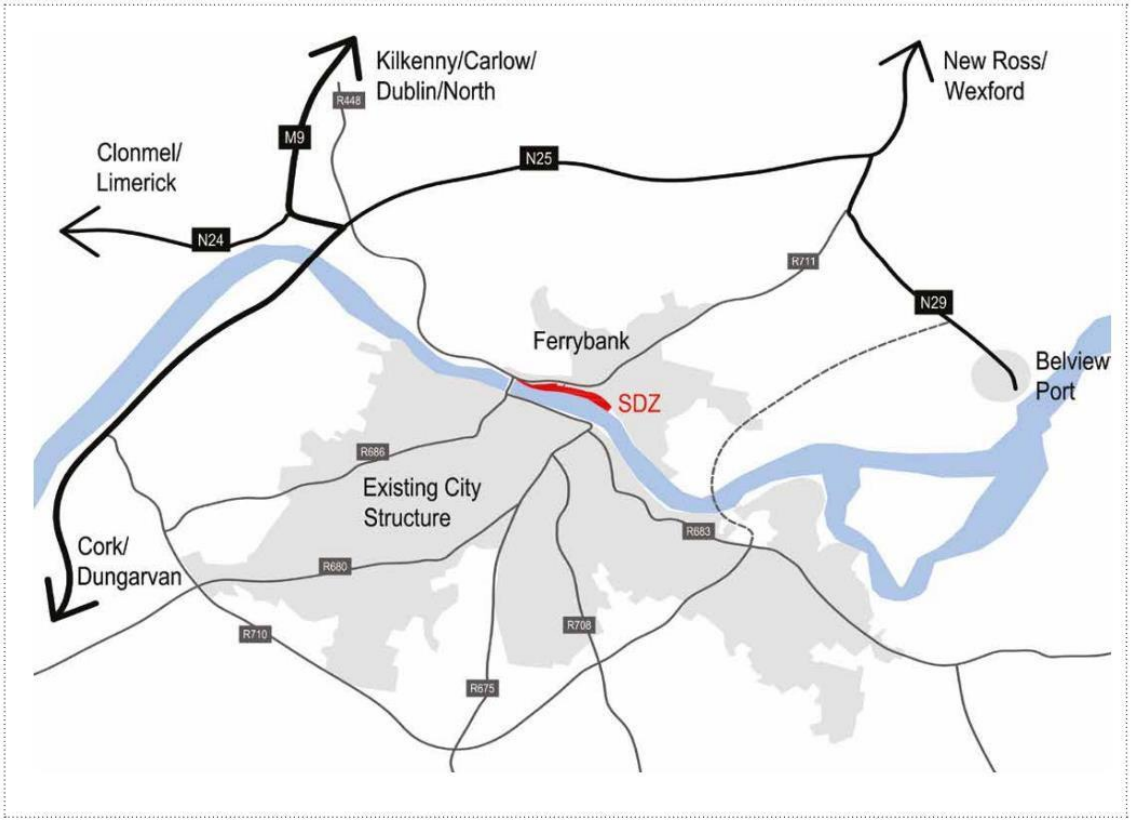


Figure 91: North Quays SDZ Site Context

The Planning Scheme provides for a significant volume of new commercial and residential development comprising:

- Overall, 150,000 sqm City Centre mixed use development
- Minimum 20,000sqm and maximum 30,000sqm net retail comparison floor area
- Minimum 5,000sqm up to maximum 70,000sqm food and beverage floor area
- Minimum 10,000sqm and maximum 15,000sqm office floor area
- Minimum 10,000sqm and maximum 15,000sqm Hotel and Conference Centre
- Minimum 10,000sqm and maximum 15,000sqm for Tourism/Cultural /Enterprise/Light Industry/ Community Facilities Uses including a large-scale tourism attraction.
- New public open space: including a multifunctional riverside promenade with a minimum width of 10m generally.

The Planning Scheme is underpinned by an update of the 2012 City Retail Strategy quantitative retail needs assessment using actual 2016 CSO population statistics for the City and Region. The updated Retail Assessment indicates a requirement for between 43,503 sqm - 49,783 sqm additional comparison net retail floorspace. It identifies that this requirement will be met through; existing development proposals for the city provide circa 7,000 sqm; the North Quays has the planned potential

to provide 30,000 sqm of this requirement; and the shortfall will be made up over time from improvements to existing retail units on lands currently zoned for City Centre use.

Ferrybank-Belview Local Area Plan 2017 - 2023

The Ferrybank-Belview Local Area Plan (LAP) outlines a strategy for the proper planning and sustainable development of an area of land in south Co. Kilkenny, stretching from Grannagh to Belview and from the River Suir to the line of the Waterford bypass. This LAP is consistent with the policies and objectives of Kilkenny County Development Plan 2014-2020.

The LAP area is made up of four EDs: Kilculiheen, Rathpatrick, Dunkitt, and Aglish within County Kilkenny. The bulk of LAP area is made up of Kilculiheen while the LAP area outside Kilculliheen is mainly zoned as agricultural and open space and has little potential for significant population growth.

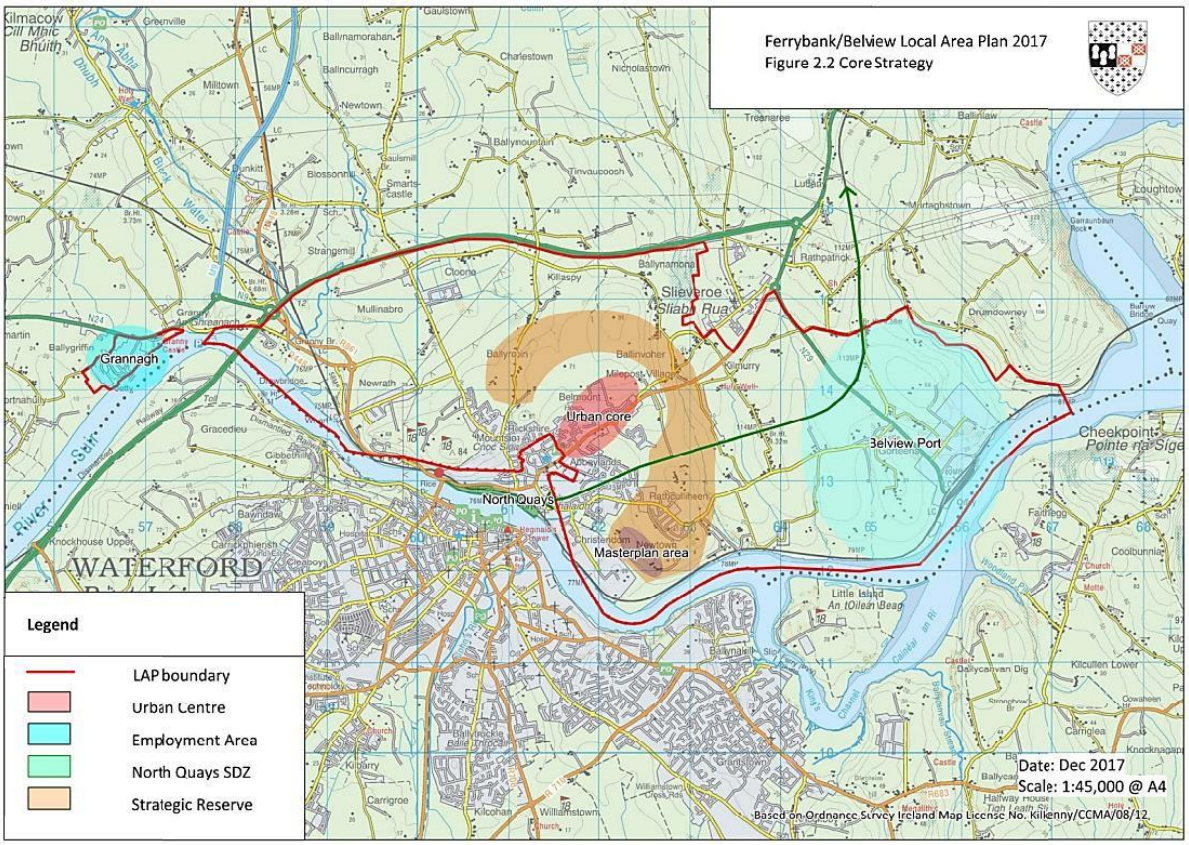


Figure 92: Ferrybank-Belview LAP Boundary 2017 (Source: Ferrybank LAP 2017)

The plan acknowledges that the opening of the Ferrybank District Centre (for retail use) would help in the creation of a focal point for the plan area and stimulate business activity in the area, however, considering the primacy of Waterford City Centre there will be no increase to the net retail area currently permitted at the centre. It is noted that results of this joint retail strategy will inform the ultimate retail hierarchy and the strategic planning framework for the greater Waterford City region. It is an objective of the plan to engage with the other relevant local authorities within the region in the preparation of a joint retail strategy for the greater Waterford City area.

The LAP identifies a number of transport objectives amongst which one of them is to work towards the delivery of the proposed N25 Green Route Link between Belview and the North Quays, to include bus stops and pick up points throughout the proposed urban village.

Draft Ferrybank-Belview Local Area Plan 2025 – 2031

The Ferrybank-Belview LAP is currently being revised by Kilkenny County Council. The Issues Paper was published in June 2024 for public consultation. Based on the published programme therein it is expected that the revised LAP will be adopted between February-May 2025.

The OPR published their submission on the Issues Paper for the Ferrybank-Belview Local Area Plan 2025-2031 on 12/07/2024. In respect of retailing, and the joint retail strategy it notes:

> *"The facilitation of retail facilities also need to be considered to provide for the anticipated population growth. Particular regard should be given to the sequential approach to the location of retail development and other provisions of the Retail Planning Guidelines for Planning Authorities (2012), and the position of the town in the retail hierarchy of the Development Plan.*
>
> *The Office understands that a joint Retail Strategy is currently under preparation by your authority and Waterford City and County Council, and it will be important that the LAP is aligned to the forthcoming policy framework."*

The Draft LAP notes that the Ferrybank Shopping Centre was constructed in 2009, but other than the library and Council Area Office, has not been occupied. The KCC CDP designated Ferrybank as a Level 2 "District Centre". It is also designated as a Level 2 Sub Regional District/Suburban Centre within the retail strategy of the WCC CDP. The role of district centres is defined within the Retail Planning Guidelines "to provide a range of retail and non-retail service functions (e.g. banks, post office, local offices, restaurants, public houses, community and cultural facilities for the community at a level consistent with the function of that centre in the core strategy. They should not serve as a retail destination in their own right sufficient to adversely impact on the city/town centre to which they are subservient."

The Ferrybank Shopping Centre, which is now owned by Dunnes Stores, has permissions for a total of approximately 4,500 sq. m convenience and 4,300 sq. m comparison net retail area. The total permitted gross floorspace of the Shopping Centre is 34,289 sq. m. This is permitted as a mixed-use development, which can contain 6,361 sqm of office space.

The Ferrybank Shopping Centre building could be utilised and/or repurposed for a range of other uses including but not limited to offices, education, enterprise, student accommodation and/or residential, or cinema. A key objective must be to ensure the building is brought into use rather than being left vacant. For this reason, the zoning applied has been changed to reflect this, with the new zoning allowing for mixed use.

It is proposed that delivery of Neighbourhood centre uses at Rockshire Road/Newrath Road is phased to align with the development of associated residential development. Policies on the retail impact assessment are set out under Section 6.3.1 as follows:

"The overarching objective of the Retail Planning Guidelines is to enhance the vitality and viability of city and town centres in all their functions through sequential development. Sequential development, in the case of Ferrybank, means that:

1. The overall preferred location for new retail development is within city and town centres, i.e. for this Plan within the District Centre and two neighbourhood centres (the existing Ross Abbey Neighbourhood centre and a further one, at a future date, proposed at the Rockshire Road/Newrath area) and,

2. Subject to the requirements below, only where the applicant can demonstrate and the planning authority is satisfied, that there are no sites or potential sites within a city, town centre or designated district centre should an edge-of-centre site be considered. In addition, only in exceptional circumstances where it can be demonstrated that there are no sites or potential sites available either

within the centre or on the edge of these centres should an out-of-centre site be considered. All applications for significant retail development should be assessed against a range of criteria, as outlined in Section 4.9 Retail Impact Assessment of the Retail Planning Guidelines 2012. The Kilkenny CDP requires that a Retail Impact Assessment will be required for development which features proposals of greater than 500 sq. m of net retail floorspace in all other settlements (outside Kilkenny City), including extensions to existing units."

Waterford Local Economic & Community Plan 2023-2029

The purpose of the Waterford Local Economic Community Plan (LECP) is to set out the objectives and actions needed to promote and support the economic development and the local and community development of the local authority area over a six-year period. It is aligned to the vision set out in the Waterford City and County Development Plan 2022 – 2028, which states:

"By 2028, Waterford City and County will have continued to grow and will be evolving to become an even more attractive, prosperous, resilient, and sustainable place, anchored by Waterford City and Metropolitan area as the Regional Capital, a University and Learning City, and an economic driver for the region. It will be the best City and County in which to live, learn, visit and do business".

The LECP provides a roadmap for how Government, WCCC, development agencies and others will work together to improve the lives of all living and working throughout the City and County. The LECP identifies the high-level goals, objectives, actions and enablers needed to develop and sustain a vibrant economy and society. The actions identified are undertaken, both by the Council and in partnership with other economic and community development stakeholders.

The LECP outlines eight High-Level Goals which are intended to be mutually reinforcing and complementary.

Table 62. Waterford Local Economic Community Plan (LECP) High Level Goals

Ecomonic Development Goals	
1	Low Carbon & Sustainable Economy: Waterford is a flagship demonstrator where research, business and the wider community will coproduce integrated solutions that will be scaled for roll out across Waterford and internationally.
2	Economic Diversity & Sustainable Growth: **Waterford's economy is well connected, innovative, creative, able to adapt** and will enable people to create their own opportunities.
3	Sustainable Placemaking & Destination Management: **Waterford is a place of choice for talent, investment and visitors.**
4	Innovation & Digital Transition: Waterford is a location which embraces the opportunities that digital technologies create, transitioning with resilience and innovation towards a SMART technology future to future proof our economy.
Community Development Goals	
5	Liveability & Quality of Life: Inclusive, sustainable development will help to ensure that Waterford continues to develop as a great place to live with **high quality physical, social, cultural, educational and employment opportunities for all.**
6	Health & Wellbeing: The health, wellbeing and the quality of life of individuals and communities will be improved through equitable access to resources and **facilities that promote positive life choices, healthy habits and active lifestyles.**
7	Inclusion & Accessibility: Waterford's publicly funded agencies will strive to ensure access to a full range of supports and resources for all demographics, ages and abilities.

8	Resilience & Sustainability: Effective communication, representation and networking will empower sustainable, resilient, inclusive and engaged communities.

Kilkenny LECP

Kilkenny's second Local Economic and Community Plan (LECP) runs from 2023 to 2028. The current LECP is built on Kilkenny LECP 2016-2021 and provides a new framework to deliver positive change within Kilkenny City and County. The LECP serves to ensure that economic and community strands are inter-related and aligned, recognising that progress against one will have material benefits for the other.

Recognising the structure of existing governance arrangements within the Council, however, the goals are sub-divided under twin pillars of Economic and Community Theme but are cross cutting, responding towards the overarching commitment towards climate change. Climate Change emerged as a central topic during the process of developing the High-Level Goals, and it would play a crucial role in determining whether or not the other Goals would be successful. As a result, climate change is recognised as a broad "theme" with its own High-Level Goal, objectives, and results. The LECP encourages population and creating a resilient economy in the region while simultaneously working to safeguard and enhance biodiversity and Kilkenny's natural heritage.

Where people, households, and communities have been and will continue to be impacted by the effects of broader global economic events, addressing the causes of poverty and achieving social inclusion remain of utmost importance in this LECP.

The Implementation Plan which is unveiled alongside the LECP sets out a series of actions against each objective that will make an individual and collective impact in delivering the High-Level Outcomes.

It acknowledges the economic strategy of the Development Plan and its identification of the industry sectors, one of these being 'retail' which will be key to its future economic development and employment growth.

The LECP state that nearly a fifth of businesses (19%) are in the wholesale and retail sector, which is likewise larger than it is nationally (17%) but has grown at a much slower rate of 5%.

The LECP acknowledges that currently there is an overreliance on retail sector in Kilkenny with room for greater diversity.

Waterford Cultural Quarter Strategic Plan 2021-2025

The Waterford Cultural Quarter area spans from Great George's Street to Waterford Distillery. Waterford's second Cultural Quarter Strategic Plan runs from 2021-2025. The first Waterford Cultural Quarter Strategic Plan sought to develop the O'Connell Street area of Waterford City via culture-led regeneration. It is an aim of the WCQ Plan *'To deliver inclusive and sustainable innovation and growth for the cultural and creative sectors of south east Ireland, to become a distinctive and engaging place to the heart of Waterford which is open, inspiring, and a vital addition to the city's creative, knowledge and vision for economy.''*

The WCQ Strategic Plan Phase II aims to build on the achievements of its predecessor and looks to develop the O'Connell Street area of the city under key themes. These being: Buildings and Uses including Public Buildings, Private Buildings, and Vacant Buildings; Public Realm; Placemaking; Collaboration; Branding, Marketing, and Communications; and Governance.

The Plan outlines that there are a number of currently vacant or under-utilised buildings within the Cultural Quarter that could be revitalized to achieve the strategic vision for a transformational place-based change in the area. The Cultural Quarter hosts a number of hospitality providers including numerous independent retailers who are the soul of the quarter. The Plan mention if successful, funding

will be allocated to upgrade the key identified buildings within this plan to support the aims of URDF application and the Strategic Plan.

It states that Cultural production and creative industry should continue to be the core elements of the quarter with a mixture of performing and thinking spaces to complement community development and retail business.

Appendix 2 Stakeholder Engagement Summary

Retail Survey Results Summary

Asked about the areas respondents shop in, Waterford City Centre received the highest responses, followed by Ardkeen Retail Park and Ardkeen/Farronshoneen (district centre with focus on mix of convenience and comparison goods), Waterford Retail Park (focus on bulky goods), Kilbarry, Tramore Road, Inner Relief Road (spread on all types of goods), and Waterford Shopping Centre Lisduggan (district centre with focus on convenience and comparison goods).

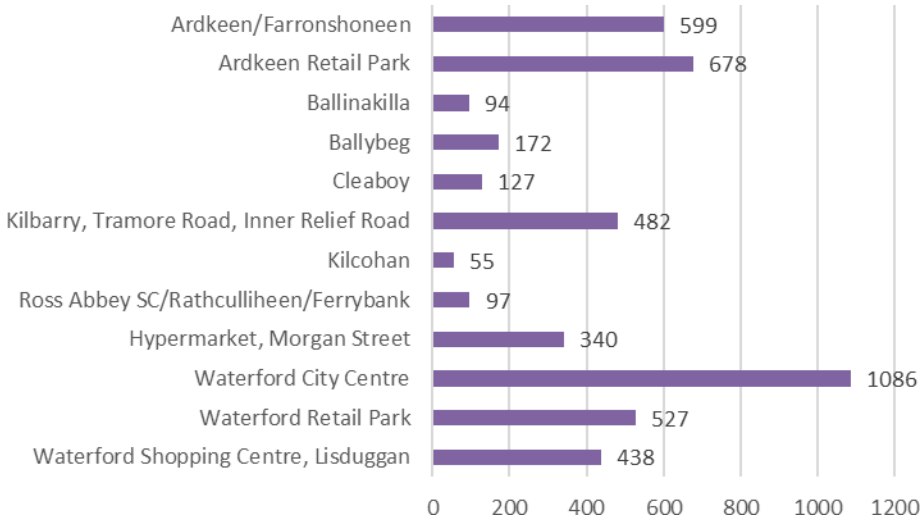


Figure 93: Responses to survey question: Which areas do you shop in? (Source: KPMG Future Analytics)

To the question how often retail centres/ shopping streets in Waterford are visited, two thirds (66%) responded they visited every day, a few times a week or about once a week. The remaining 33% visited Waterford retail centres and shopping streets less often than weekly.

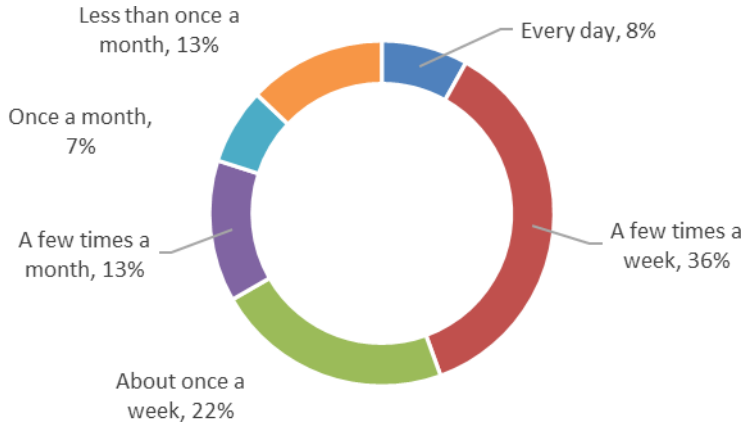


Figure 94: Responses to survey question: How often do you visit retail centres/ shopping streets in Waterford? (Source: KPMG Future Analytics)

When asked about the mode of transport used to access Waterford's retail centres and shopping streets, 96% respondents stated they used private car, 60% stated they walked. Values for all other modes of transport were significantly lower, with 34% of respondents using the bus, 25% taxi, 9%

bicycle, 3% micro mobility (i.e., e-bike or e-scooter). It was possible to provide more than one answer. Response patterns varied by frequency of usage, with bike, bus and taxi mostly used for less often than monthly shopping. Private car and walking predominated in daily and weekly shopping.

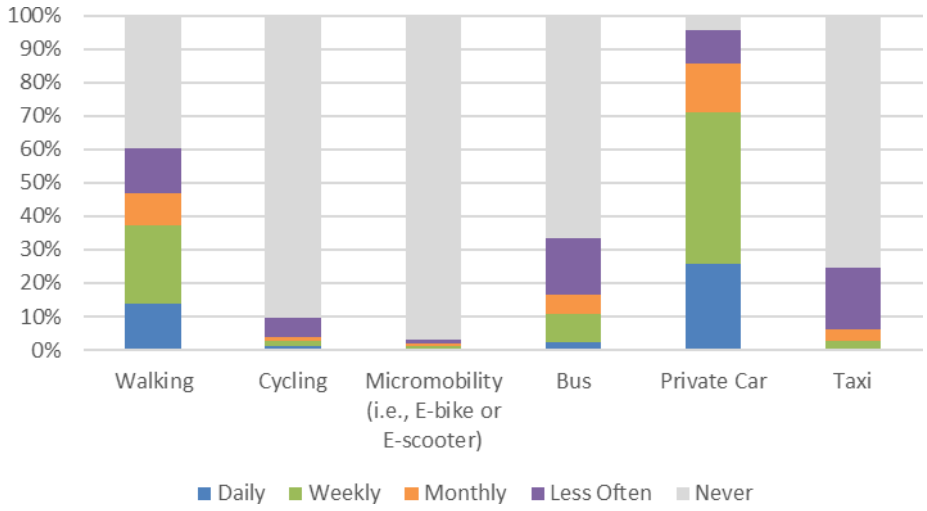


Figure 95: Responses to survey question: How often do you travel to retail centres/ shopping streets in Waterford by the following transport options? (Source: KPMG Future Analytics)

Looking specifically at daily, weekly, and monthly shopping, it becomes evident that private car and walking are the predominant modes of transport for accessing the shopping facilities in Waterford.

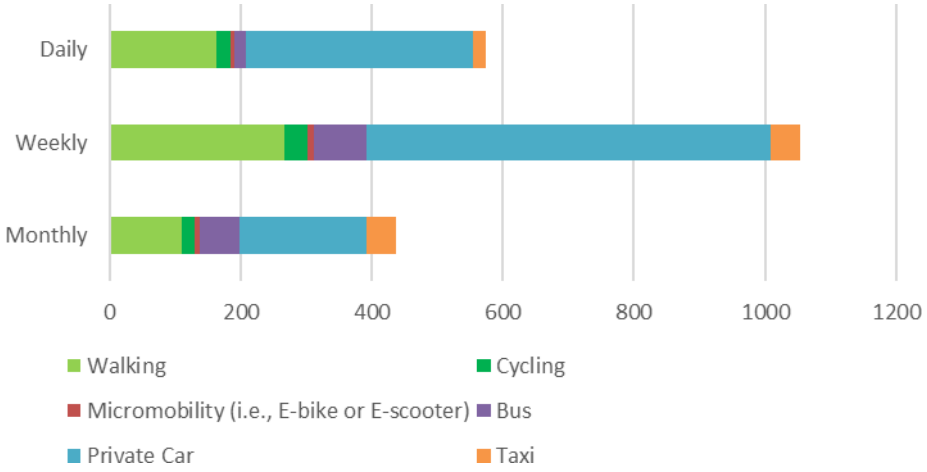


Figure 96: Responses to survey question: How often do you travel to retail centres/ shopping streets in Waterford by the following transport options? (2) (Source: KPMG Future Analytics)

Regarding main reasons for visiting retail centres/ shopping streets in Waterford, respondents primarily carried out food and grocery shopping as well as 'top-up' grocery shopping and visited a restaurant or café on a daily or weekly basis, while all other activities are carried out mostly on a monthly or less often basis. 18% of respondents never visit Waterford's retail centres and shopping streets for arts, books and music (highest value), 4% for visiting a pub or bar (lowest value).

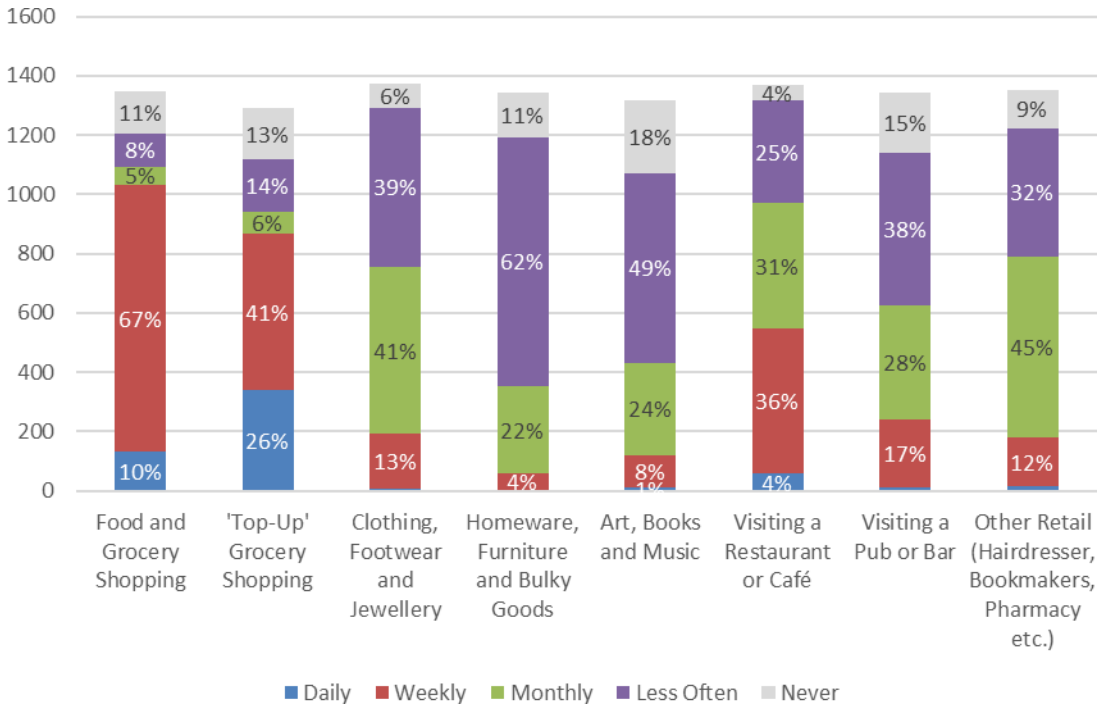


Figure 97: Responses to survey question: What are your main reasons for visiting retail centres/ shopping streets in Waterford? (Source: KPMG Future Analytics)

When asked about average spending on different retail activities, low amounts are spent on arts, book and music as well as 'top-up' grocery shopping. In contrast, the highest amounts are spent on food and grocery shopping, clothing, footwear and jewellery, and homeware, furniture and bulky goods.

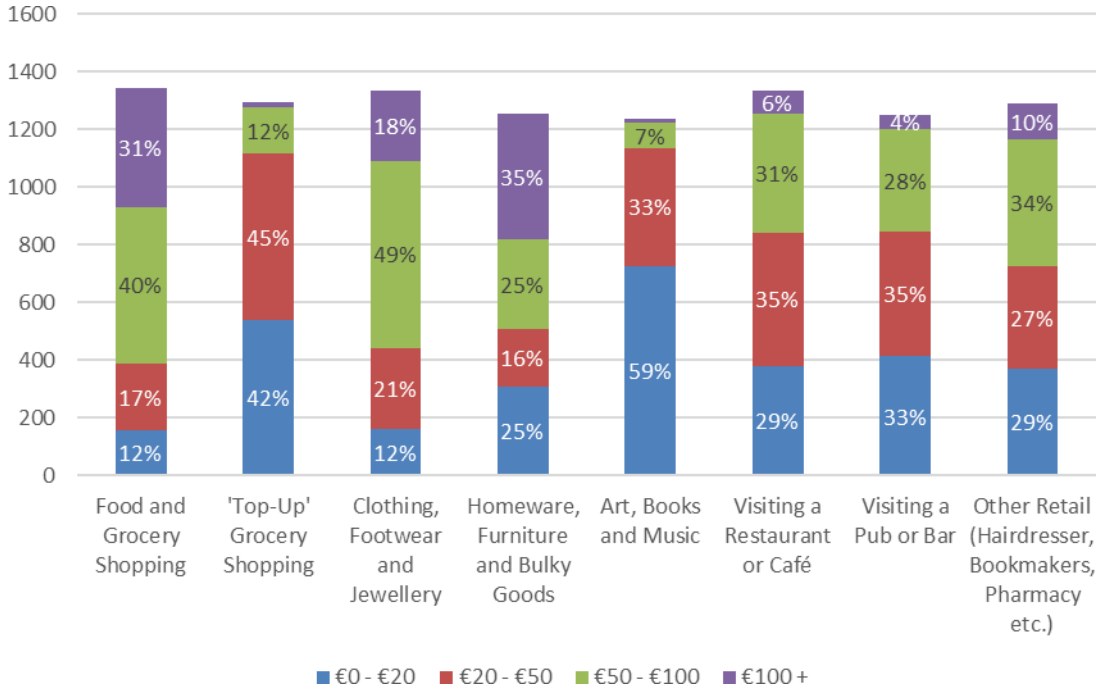


Figure 98: Responses to survey question: On average, how much do you spend on each of these retail activities per trip? (Source: KPMG Future Analytics)

The shopping experience in Waterford is generally seen in a negative light. Only 5% noted that 'Waterford City has a good retail environment', while 21% stated that 'Waterford City has an okay retail environment, where improvements can be made'. The remaining 74% stated that 'Waterford City has a poor retail environment. Challenges exist, such as a lack of large brands and high-quality local businesses in the city'.

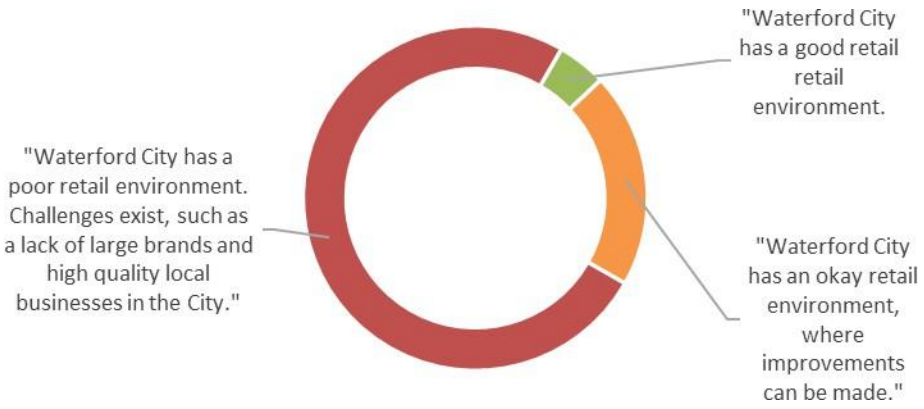


Figure 99: Responses to survey question: What statement best describes the retail/ shopping experience of Waterford? (Source: KPMG Future Analytics)

This perception translates into responses for main strengths of Waterford's retail environment. Only answer options related to hospitality ('good selection of places to eat and drink during the day' and 'good selection of places to eat at night') had average answers above the medium score of 3.5. All other answers were considered to be less of a strength in Waterford's retail environment, particularly 'attractive shop fronts' and 'large brands and retailers'.

Figure 100: Responses to survey question: What are the main strengths of Waterford's retail environment? Please rank, with '1' being the greatest strength and '7' being the least great strength (Source: KPMG Future Analytics)

This picture is also reflected in the question on main weaknesses of Waterford's retail environment. 'A lack of large brands and retailers' is rated the greatest weakness by a margin, while hospitality-related answers are generally considered to be less of a weakness.

Figure 101: Responses to survey question: What are the main strengths of Waterford's retail environment? Please rank, with '1' being the greatest strength and '7' being the least great strength (Source: KPMG Future Analytics)

Waterford's retail centres and shopping streets are frequented primarily in the mid-morning hours (28%), in the afternoon (28%) and in the morning (16%). In contrast, early morning hours (6%), evening (8%), and late evening (1%) are considered less significant.

When asked about shopping locations outside of Waterford, a majority of respondents stated Kilkenny, Dublin, and Cork as alternative shopping destinations, while Clonmel, Kildare Village, and Wexford are less common destinations. Most respondents, however, travel to these destinations less often than on a monthly basis. Kilkenny has the greatest pull of all the destinations for monthly or more frequent shopping. In an open-ended question on other shopping locations, variations of mentions related to online shopping featured 53 times, variations of mentions related to Dungarvan followed with 38 mentions.

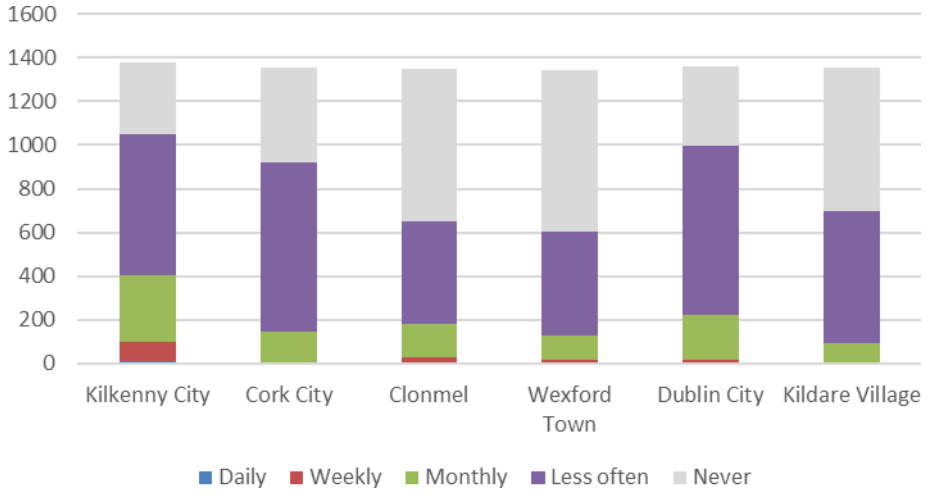


Figure 102: Responses to survey question: How often do you shop at these locations outside of Waterford? (Source: KPMG Future Analytics)

When asked for the main reasons for shopping at locations outside of Waterford, 'large brands and retailers' was by far given as the most common answer (more than 1,000). 'Good access with car parking and public transport', 'high-quality local and independent retailers' and 'good selection places to eat and drink during the day' followed with more than 500 replies each.

Figure 103: Responses to survey question: What are the main reasons for shopping at these locations? (1) (Source: KPMG Future Analytics)

The above results are reflected in the responses given in an open-ended option to this question. Variations around Variety/choice of products and accessibility were the most significant mentions.

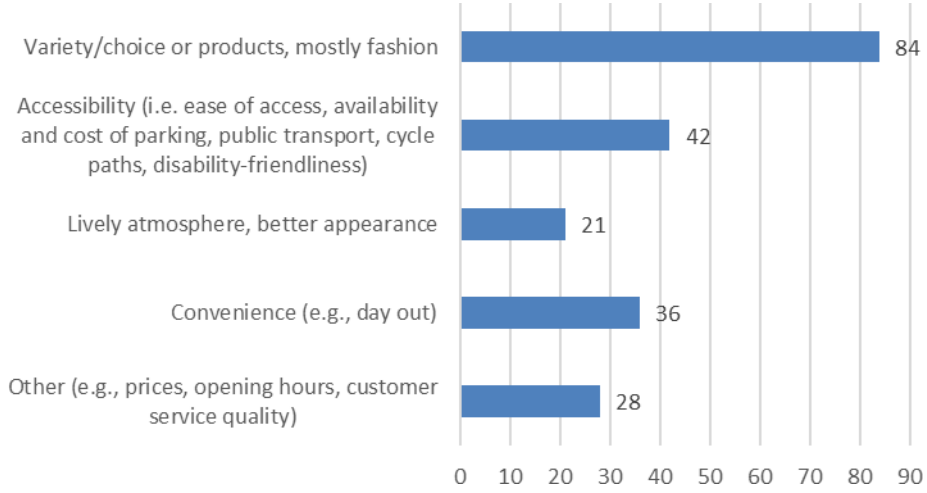


Figure 104: Responses to survey question: What are the main reasons for shopping at these locations? (2) (Source: KPMG Future Analytics)

When asked about the types of products shopped online, there was a clear distinction between 'clothing, footwear and jewellery', 'art, books and music', 'homeware, furniture and bulky goods' on the one hand, which are primarily shopped online, and 'food and groceries and 'top-up grocery' which are primarily shopped offline.

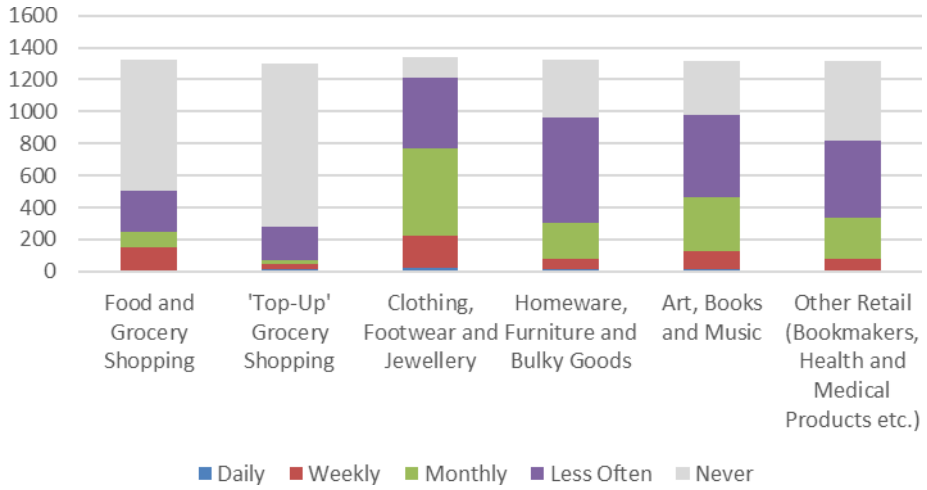


Figure 105: Responses to survey question: How often do you shop online for the following products? (Source: KPMG Future Analytics)

When asked for the main reasons to shop online, 88% gave most or more significance to a 'greater choice of products' as their motivation. 41% of respondents gave most or more significance to 'easier for comparison shopping' as their motivation to shop online. 42% gave most or more significance to 'better deals and more affordable' as a reason to shop online. In contrast, 61% gave less or least significance to convenience, such as next day delivery, as main motivation to shop online, and 83% gave less or least significance to 'better opening hours of retailers' as main motivation to shop online.

	Greater choice of products	Easier for comparison shopping	Better deals and more affordable	Convenience, such as next-day delivery	Better opening hours of retailers
1 (most significant)	70%	8%	13%	7%	2%
2 (more significant)	18%	33%	29%	13%	7%
3 (neutral)	8%	27%	37%	19%	8%
4 (less significant)	3%	21%	14%	46%	16%
5 (least significant)	1%	10%	6%	15%	67%

Figure 106: Responses to survey question: What are the main reasons for shopping online for these products? Please rank in order of significance, with '1' being most significant and '5' being least significant. (Source: KPMG Future Analytics)

An open-ended question asked for motivations that would make respondents shop more often in Waterford than online. Most respondents singled out variety and choice of products, mostly in relation to fashion and to a minor degree in relation to eating options and independent/ boutique shops. Other important motivations for shifting from online to local shopping include accessibility, particularly ease of access by car and public transport, parking costs, safety for cycling, disability-friendliness. A third topic was atmosphere and vibrancy as well as appearance and safety in shopping areas, particularly in city centre locations.

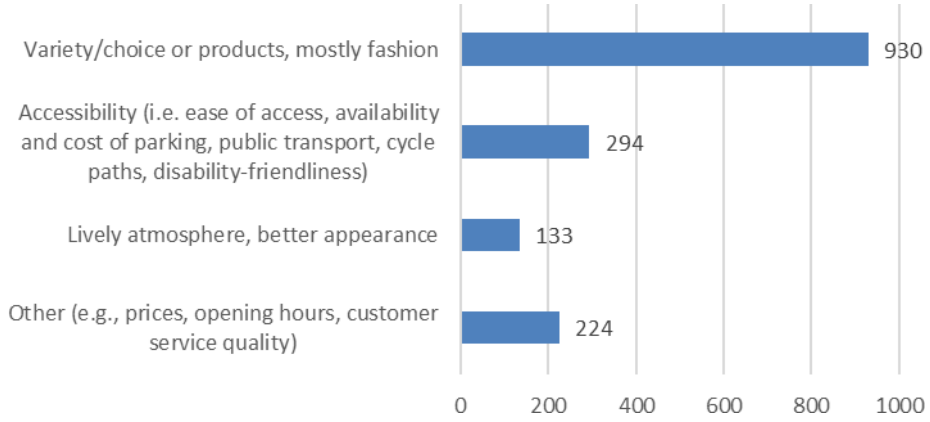


Figure 107: Responses to survey question: What would make you shop more often in Waterford than online? (Source: KPMG Future Analytics)

Responses to an open-ended question on further views on retail in Waterford confirms the general perception that the variety & quality of retail requires significant improvement. Respondents emphasise the lack of big brands, especially fashion, and independent retailers. In contrast, there is a current dominance of phone, charity, coffee and vape shops. Further, the sale of fresh local produce, e.g., on food markets could be focused on. Another answer focus – presumably party prompted by the way the question was posed – was on entertainment / leisure options. There is a general perception that Waterford needs a concert/ music venue and additional cultural venues, such as theatres and niche arts and creativity spaces. Fewer respondents pointed to topics related to accessibility (i.e., traffic, transport), safety & appearance (i.e., dereliction, homelessness, crime), atmosphere, liveliness, vibe (i.e., frequency, design of public space), retail rates & business supports.

Figure 108: Responses to survey question: Do you have any views on retail in Waterford? (e.g., more entertainment venues such as cinemas, theatres or concerts)? (Source: KPMG Future Analytics)

Appendix 3 Case Studies

Introduction

This Section presents case studies which demonstrate best practice in town centre rejuvenation. The case studies cover a wide range of town centre rejuvenation initiatives which have been applied in town and city centres across the UK and Ireland. The different initiatives considered in this Study are summarised in the table below they include measures led by the public sector, community (voluntary) sector and the private sector or a combined partnership approach.

Table 63 Summary of town centre initiatives covered in Case Studies

	Clonakilty	Tramore	Limerick	Drogheda	Blackpool UK
Planning Policy & Strategy	X	X		X	
Management Organisations	X		X	X	
Public Sector Funding	X		X	X	
Town Centre Living					
Public Realm & Access	X	X		X	X
Marketing & Branding	X			X	
Town Centre Activation	X				
Asset Management			X		X

An overview of the different measures explored in the case studies is provided below:

- **Planning Policy & Strategy**: preparation of local planning policy and strategy documents which provide a framework for a pro-active and coordinated approach towards town centre management and redevelopment of town centre sites. Examples include site development briefs in CDPs or LAPs and standalone and Town Centre strategy documents (such as Statutory Masterplans, Town Centre First Plans or Actions Plans).
- **Town Centre Management Organisations:** dedicated organisations with the organisational capacity and funding to implement town centre strategies in partnership with Government, businesses, and the voluntary sector. Examples include Business Improvement Districts (BIDs), (e.g., Love Drogheda BID, Dublin Town BID).
- **Public Sector Funding**: creating the right conditions to attract private sector investment in town centres by leveraging public funding to deliver improvements in town centre environments and public realm (e.g., Town and Village Renewal Scheme, Rural Regeneration and Development Fund and Urban Regeneration and Development Fund).
- **Town centre living**: measures to provide additional residential development in the town centres can bring broader economic benefits by increasing footfall, retail spending and enhancing the night-time economy as well as clear sustainability benefits (e.g., Town Centre Living Pilot Initiative).

- **Public realm and Access:** delivering improved access to and within town centres by all modes of transport by prioritizing pedestrian access in the Retail Core Area and improving sustainable access to town centres by prioritising public and active travel modes. Reducing motorised through traffic through town centres provides space for activities on the street including outdoor dining, entertainment, events, and trading such as seasonal markets. Access strategies must provide efficient access for persons with reduced mobility through provision of sufficient conveniently located accessible car parking facilities and designing/upgrading public transport interchanges to be accessible for all.
- **Marketing and branding**: linked with the below, drive increased footfall and retail spending in town centres by proactively marketing business and events (e.g., Love Drogheda BID and Dublin Town BID).
- **Town Centre Activation**: linked with the above, drive increased footfall and retail spending in town centres and enhance the visitor experience by organising events, festivals, markets, and other temporary uses.
- **Asset Management:** improve the quality and/or diversity of the retail offer and reduce commercial vacancies through proactive asset management by property owners to reduce vacancy and provide a curated mix of retailers. Create forums for regular dialogue between public and private sector bodies to understand how public sector funding could be leveraged to attract additional private sector investment and attract targeted retail operators.
- **Monitoring**: set key performance indicators for monitoring town centre performance and carry out regular monitoring to test the effectiveness of different short and long-term interventions in town centres.

Clonakilty Co. Cork

Introduction

Clonakilty is a heritage town located in West Cork. Less than 50-minutes from Cork City and having a population of just under 5,000 people in 2022, the town is recognised as the primary settlement within the West Cork Municipal District, hosting key employment and retail services in West Cork. Outside of its strategic importance for employment and retail, the town is also known for its cultural importance, being a hub for tourism in West Cork.

Clonakilty has benefited from a variety of rejuvenation measures over a sustained period which has transformed Clonakilty into an award-winning town for its pedestrian-focused urban design and placemaking. Significant public realm improvements have been undertaken in the town centre by Cork County Council since 2013 informed by long-term vision plans. Other complimentary initiatives include the smarter travel initiatives and a range of supports for local businesses.

Planning Policy and Strategy

The Cork County Development Plan 2022 – 2028 (CDP) contains various planning policy objectives which support the transformation of Clonakilty's public realm.

The strategic functions of Clonakilty as outlined within the CDP have provided Cork County Council with the opportunity to implement public realm improvements in the town. The CDP also supports the possibility of further pedestrianisation schemes within the town centre.

The Clonakilty 400 Urban Design Master Plan ('Clonakilty 400') brings together various policy objectives for Clonakilty town centre into a single Masterplan document. Adopted in 2013, Clonakilty 400's key objectives were to re-organise the town centre environment to create a pedestrian-focused public realm along Clonakilty's main streets. This re-organisation included works such as:

- Increased footpath widths, improved pedestrian crossings and the extension of footpath paving over side street junctions to increase pedestrian mobility, such as Asna Square.
- Rationalisation of on-street carparking.
- New street furniture and periodic changes to the carriageway surfaces including the creation of shared spaces integrated with public squares.
- Retention and protection of architectural, cultural and natural heritage within Clonakilty, such as the Emmet Square redesign.

Figure 109. Before (left) and after (right) Asna Square public realm intervention in Clonakilty. Source: Government of Ireland.

Management and Marketing

Cork County Council is responsible for any capital works within the County which includes the works contained in Clonakilty 400 and the Development Plan for Clonakilty.

Clonakilty Chamber of Commerce manage the day-to-day commercial and business activities within the town, such as attracting and retaining business, organising social and networking events and business training. The Chamber of Commerce also operate Clonakilty.ie and the Clonakilty Vouchers Scheme which is available to purchase on the website and to spend in sixty-four stores in the town.

Funding

Most funding for the Clonakilty 400 public realm works was sourced through State funding via Cork County Council. The Master Plan was strategically phased over a 10-year period to attract investment from various funding streams including town council funds (P1), drainage & roads funds (P2) and OPW flood relief funds (P3). Other local funding initiatives, such as the Clonakilty Charity Ball organised by the Children of Clonakilty Project also provided capital for town centre projects.

Key outcomes

Clonakilty has been transformed into a multi-award-winning town for its pedestrian-focused urban design, placemaking and visitor facilities. These awards include:

- Ireland's first Autism-friendly town.
- European Destination of Excellence.
- Best Town in Europe 2017
- Main Street Clonakilty, winner of the RIAI Best Place in Ireland, 2017; winner RIAI Awards People Choice, 2015; winner RIAI Awards People Choice, 2014.
- Clonakilty was named best town in Ireland and the UK by the Academy of Urbanism in 2016, beating 40 other short-listed towns to the title.

Cork County Council has seen a rise in the value of properties within Clonakilty but have also seen a reduction in vacancy rates since completion of the public realm works. While these public realm works had the potential to impact on the existing built heritage of the town, efforts were made by Cork County Council and Town Council to preserve traditional shopfronts along Main Street. The result of this effort was the re-establishment of social activities on the street, which benefitted local retailers as footfall within the town centre increased significantly.

Key findings

The main takeaways are:

- Understanding the importance of creating a people-first public realm. A public realm which is designed for people invariably impacts on the overall health of a town or village centre.
- Places where people, families, elderly and those with disabilities feel safe to navigate increases overall footfall. Footfall is further increased through complimentary interventions such as street furniture, public lighting and public bins/waste facilities.
- Delegation of operations within a town/village can improve the outputs and outcomes of projects.
- The phasing of public realm improvements can help diversify and expand funding streams for projects through the ability to submit applications to various state funding programmes.

Tramore Co. Waterford

Introduction

Tramore is an attractive and well-known seaside town in Waterford County which serves as a key satellite town to Waterford City. The 4.5km beach is a major visitor attraction throughout the year. However, the town centre has suffered through lack of investment, weak access routes and no defined town centre. The challenging topography of the main street has become an exacerbated constraint due to poor footpaths and pedestrian linkages with the beach areas to the south of the town centre.

Planning Policy and Strategy

Tramore is identified as a Large Urban Town within the Settlement Strategy of the Waterford County Development Plan 2022 – 2028 (CDP). It holds functions for housing, employment, retail and being a key commuter town for Waterford City. Its population also increased by roughly 8% between 2016 and 2022, making it Waterford's second largest urban area. The primary policy objectives for Tramore within the CDP aim to facilitate the transition of the town from a commuter town to a more self-sustaining town by expanding its employment function. Supporting this, the Waterford Retail Hierarchy within the CDP identifies Tramore as a District/Suburban Centre, aiming to promote further retail development within

the town. These policy objectives were also outlined within the previous iteration of the CDP for the 2011 – 2017 period.

Tramore Town Centre Design Strategy

To realise the policy objectives within the CDP for the 2011 – 2017 and 2022 – 2028 period, The Tramore Town Centre Management Plan was produced by the Tramore Town Centre Management Group (TTCMG). Established in 2015, the TTCMG created the Tramore Town Centre Management Plan 2016 – 2018. The main proposals within the Plan included:

- Creating significant additional off-street parking thereby permitting some reduction in on street parking and a more balanced pedestrian friendly public realm.
- Improving vehicular access to the town centre by a new circulation system and better signage and identification of location of parking.
- Improvement to the public realm by creating high quality pedestrian friendly areas, level platforms to combat the steep gradients, improved linkages to the beach amenity areas, a future transport hub and undergrounding of disfiguring overhead services.
- Address vibrancy by acquiring and improving a centrally located vacant premise (9 Main Street) and returning it to beneficial use. It also implemented a grant support scheme to kick start complimentary businesses to diversify the town's retail offer.

Public Realm and Access

A key issue which the Plan aimed to address was improved accessibility to the town centre, primarily for pedestrians and cyclists. Waterford City and County Council commissioned dhb architects and DBFL Consulting to create an integrated traffic, parking and public realm solution for Tramore Town Centre. This involved removing vehicular traffic from Main Street in order to create a new 'urban street' which was fully pedestrianised. Solutions to achieve this included new mid-level car park (located at the rear of Tramore Library), rationalisation of on-street carparking, reassignment of road carriageway, new junction configurations and one-way vehicle circulation strategy, footpath widening, formal pedestrian crossing facilities, new traffic management regulations and streetscape/public realm enhancements.

Figure 110. Before (left) and after (right) images of Main Street public realm works. Source: Google 2024.

Funding

The total project budget for these works, as outlined by WCCC in 2018 was €2.9 million. A pipeline of twelve projects has also been outlined for the wider Tramore area, which total €13.9m in estimated costs. Several sources comprised funding for the town centre works: €2.2m from the Urban Regeneration Development Fund (URDF) and €1m in direct funding from Waterford City.

Key outcomes

Completed in 2022, the project was successful in achieving both the retail and communal potential of the town centre. The diversion of vehicular traffic from Main Street has provided the town centre with a cohesiveness which was previously lacking. It now represents a defined town centre and pedestrian converging point, which the diversification of retail being a direct result of the public realm works.

In 2023, Tramore Town Centre was shortlisted for the RIAI Public Choice Award. The success of the project has also opened up opportunities to pursue a pipeline of capital projects in the Tramore area – in 2023, €4m in capital funding was earmarked for the redevelopment of Queen Street and Pond Road out to the Lafcadio Hearn Japanese Gardens. This redevelopment work will further consolidate Tramore's town centre assets, creating a connected, diverse and vibrant destination. These works are projected to occur across 2025 and 2026.

Key Findings

Given the relevance of Tramore to Waterford City, several important insights can be gained from the success of the Tramore Town Centre Management Plan:

- The rationalisation and relocation of car parking from main streets and high streets to more non-invasive sites provide the public area needed to redefine town and village centres.
- Having a pipeline of capital projects which are strategically linked and phased can help receive funding from state funding programmes.
- Providing an evidence-base and rationale for the preferred project option within business case proposals and funding applications can increase likelihood of being awarded state funding and investment.
- Acquiring and leasing commercial properties by local authorities along newly pedestrianised streets can provide sufficient incentive to attract new businesses to town and village centres, further diversifying local retail offerings.

Limerick City Co. Limerick

Introduction

Limerick City is the largest urban centre in Ireland's Mid-West and the country's third largest City, located 200km from the capital Dublin. According to Census 2022, Limerick City and suburbs has a population of 102,287. Limerick City Centre is the principal employment location for the Mid-West Region with 44,625 jobs in 2016.

Planning Policy and Strategy

Limerick Development Plan 2022-2028

The Limerick Development Plan 2022 – 2028 contains various planning policy objectives which support the transformation of Limerick's public realm. A number of strategic brownfield consolidation sites have been identified for redevelopment in Limerick City Centre, which will have transformational effects on the revitalisation of the city. The development plan aims to protect the unique character of Limerick. This includes supporting and facilitating revitalisation and consolidation of the city, towns and villages, through public realm and place-making initiatives.

Figure 111 Public realm works on Main Street as seen from Market Street junction. Source: Waterford City and County Council.

The Plan recognises that the retail sector is pivotal to regeneration and renewal of Town Centre areas, their economic viability and delivery of a high-quality public realm, built environment and sense of place. The Development Plan also references the Limerick 2030 Plan, which aims to create a modern City Centre that includes world-class office accommodation and residential developments, linked through a series of transformational City Centre public realm projects, including the Great Streets Programme.

Limerick Shannon Metropolitan Area Strategic Plan

The MASP supports innovative approaches to securing long term transformation and rejuvenation and focused compact City growth, including unlocking the potential of centrally located sites. Sustainable densification will be facilitated through the assembly of brownfield sites for revitalisation of the City Centre. The MASP prioritizes public realm improvements in the City Centre including the development of a city- wide interconnected set of public parks and urban renewal within the Georgian Neighbourhood.

Retail Strategy for Limerick Shannon Metropolitan Area and County Limerick

The Retail Strategy supports initiatives and improvements to the customer experience of the City Centre, including a number of projects which will be undertaken over the lifetime of this Plan. Such initiatives and projects include the preparation of a City Centre Public Realm Strategy, the revitalisation of O'Connell Street, the Limerick Laneways Project, the Wayfinding and Orientation Strategy, the Living Limerick City Centre Initiative and the World Class Waterfront.

Town Centre Initiatives

Limerick Business and Retail Incentive Scheme

In 2021, Limerick City & County Council introduced a new Business & Retail Incentive Scheme in Limerick City Centre which provides financial incentives to encourage new businesses to open in

designated areas of Limerick City including Abbeyfeale, Kilmallock, Newcastle West and Rathkeale. Occupiers of vacant properties are offered incentives for higher order retail, office and business uses. The scheme is intended to address vacancy rates, improve streetscapes and to support the business community. The grant relief provided under the scheme for vacant property is:

- **Year 1** – Grant relief is based on certified fit out costs subject to a maximum of 50% of the annual rates liability.
- **Year 2** – Grant relief is based on original certified fit out costs (as submitted at year 1) subject to a maximum of 25% of the annual rates liability.

Limerick Twenty Thirty Strategic Development DAC

Limerick Twenty Thirty Strategic Development DAC is a local authority wholly owned special purpose group created in Ireland to deliver a city and countywide programme of investment. Limerick Twenty Thirty (LTT) was established by Limerick City and County Council (LCCC) in 2016.

The core objective of the Limerick Twenty Thirty Strategic Development DAC is to invest in Limerick city and county through the assembly, master planning and development of sites, thereby directly impacting employment levels and improving the general socio-economic conditions of Limerick.

Figure 112. Gardens International development delivered by LTT DAC

O'Connell Street Revitalisation

Plans have been unveiled by Limerick City and County Council for the re-development of Limerick's premier street – O'Connell Street. The O'Connell Street Revitalisation Project covers the area between the junctions with Denmark Street/ Arthur's Quay and Cecil Street/ Lower Cecil Street. The overarching aim of the project is for the street to be primarily pedestrian priority, while being flexible in use. The project includes:

- Wider footpaths to facilitate people gathering, on-street trading, and 'spill out zones' from shops and cafés on the street.

- Provision of street furniture on O'Connell Street including seating areas, trees, planting, bicycle stands, and lighting, as well as features such as sculptures, pedestrian plazas and water installations.
- Dedicated cycle lanes to facilitate active travel.
- Introduction of public transport infrastructure and reduction in the width of traffic lanes
- Raised table junctions to slow down traffic.
- Relocation of parking and loading spaces from O'Connell Street to adjacent side streets

Under the phase one of O'Connell Street Revitalisation Project, Limerick city saw a major transformation in early 2023. Phase two is currently under construction.

Figure 113. Development in Block 3, O'Connell Street between Bedford Row/Thomas St and Roches St (Source: Limerick.ie)

Funding

Limerick Twenty Thirty DAC is tasked, in the first instance, with delivering over €500m worth of transformational investment infrastructure across Limerick, focussing on strategic sites capable of record inward investment and jobs.

The O'Connell Street Revitalisation project is co-funded with €4m from the European Regional Development Fund's S&E Regional Operational Programme 2014-20 Designated Urban Centres Grants Scheme, managed by the Southern Regional Assembly, and Limerick City and County Council.

Key outcomes

As of 2021, LTT DAC have master-planned four projects, completed two, and commenced one other project. Some of the key projects by LTT in Limerick city centre are listed below.

Table 64 Projects by LTT in Limerick City (Source: LTT)

Project	Status
Gardens International	-Gardens International is emerging as one of the most talked-feats of office architecture in the state today. The 112,000 sq. ft of Grade

Project	Status
	A office accommodation was completed in Q4 2018 after a twelve month build programme. -Completed, tenants in place.
Opera Square	-The 3.7-acre Opera Square project will be a landmark commercial development. The development involves the construction of the campus-wide basement and the 6 Storey LEED Platinum Office Building. - Work commenced in Q4 2020, currently under construction.
Cleeves Riverside Quarter	- Cleeves Riverside Quarter is a strategic brownfield site in Limerick City centre. Located adjacent to the Condell Road, which is a main access route to the city, and the River Shannon, this potential gateway site extends to approximately ten acres overall and has a number of distinct character areas. -Masterplan stage
Mungret Park	-The 60-acre site is located on the grounds of the former Mungret College and associated buildings. The project will be part of a wider, multi-serviced campus complete with already developed schools, a public park, play-ground area and existing residential all adjacent to it. -1,252 units completed by 2025

Key findings

Given the relevance of Limerick City to Waterford City, several important insights can be gained from the success of the town centre initiatives in Limerick City:

- To increase the footfall and reduce the vacancy rates in town centre, commercial incentive scheme could be introduced in Waterford City such as the grant relief scheme implemented by Limerick City & County Council.
- Consider establishing a property development company to redevelop and manage city centre regeneration sites where the private sector has not delivered.
- Prioritization of pedestrian-friendly measures for town centre in order to increase the accessibility and aesthetic appeal of the area for pedestrians. Some feasible pedestrian-friendly measures may encompass the widening of pavements, relocation of on-street servicing areas on main frontages and the integration of traffic calming measures.

Drogheda Co. Louth

Introduction

According to Census 2022 results, Drogheda is the largest town in Ireland with a population of 44,135**.** Drogheda is located within the administrative areas of Louth and Meath County Council. The town centre and urban core is located in Louth with the southern fringes extending into Meath.

Supporting the population of Drogheda, there is a wide range of services and amenities including an extensive convenience and comparison retail portfolio in town centre and edge of centre locations, a regional hospital at Our Lady of Lourdes, primary and secondary schools, an adult education facility, community centres, play parks, and open spaces, as well as a range of local and international businesses, production, and manufacturing facilities located in the business and enterprise parks in the town.

Planning Policy and Strategy

Louth County Development Plan 2021-2027

The Louth County Development Plan 2021 – 2027 (CDP) contains various planning policy objectives which support the transformation of Drogheda's public realm.

In the CDP, revitalising and redeveloping the Drogheda town centre is a priority. This includes the regeneration of opportunity site and integrated physical, economic and social regeneration to capitalise on existing infrastructure. Areas identified include the Heritage Quarter and the Westgate Area, which received funding under the Urban Regeneration Development Fund (URDF).

Public Realm Initiatives

Love Drogheda BID

The Drogheda Business Improvement District (Love Drogheda BID) works towards making Drogheda a great place to work, live and socialise. It is a collaboration of 1,561 levy payers. Local Business funding and local improvements have been in operation since we were mandated in 2019. There are several initiatives taken by Love Drogheda BID to improve the retail and town centre and make it a more attractive and inviting place to live, shop, and work. The initiatives are set below:

- The town dressing initiative includes road signage, Louth County and Irish flag bunting, a flowering project dedicated to assisting businesses with the cost of flowering their business, attractive parklets and coming-soon new dedicated lamppost banners. These efforts in conjunction with the increased bin collection, new street artwork, TUS team litter picks and the Looking Good Drogheda campaign.
- Organising family friendly activations like music, characters, jugglers, stiltwalkers, facepainting, balloon modelling and more, all designed to increase footfall, extend dwell time and make the town centre a more interesting and welcoming place to spend saturday afternoons.
- Providing BIDs members with the opportunity to apply for a flower grant of up to €200 per business to assist with the cost of flowering outside their businesses. Flowers outside business premises help bring colour and added vibrancy to the town, adding to the entire streetscape and making the town look more attractive and welcoming.

Westgate Development Scheme

The Drogheda Westgate project scheme vision was lodged in 2018 with an aim to provide significant enhancement of the town centre, helping to recover the streetscape, create high quality public spaces, provide positive regeneration, while also protecting and promoting Drogheda's unique historical and cultural landscape.

The proposed improvements to the public realm in the Westgate area will encompass several streets including Georges Street to Dominick Street and from Fair Street to Father Connolly Way included among the proposed works are:

- A new gateway plaza at George's Square
- Flexible community and cultural space
- Public art installation marking the location of the medieval West Gate
- Revitalising the river front
- Repair and restoration of the Old Abbey and the Medieval Wall
- The project is envisaged to be implemented in three subsequential stages consisting of short term (3 months-3 years), medium term (3-5 years), and long term (5-10 years) projects.

Figure 114. Proposed Westgate riverside development along Drogheda

St. Laurence Plaza Development Scheme

- The proposed development scheme in St. Laurence Plaza includes significant improvements to the public realm, lighting and road alignment.
- St. Laurence Plaza Development Scheme is a €45-million urban regeneration project in the heart of Drogheda comprising a town centre shopping mall, apartments, offices, a community hall, and a 19th century church restoration.
- The total size of this mixed development stands at 44,200 sq.m, with the double mall housing 40 retail units over a two--storey basement car park. The design integrates new retail space into the historic walled town to provide residents with a modern shopping experience.
- The objective of this proposal is to create a new shopping centre on an underutilised brownfield land to stimulate the out-of-town commercial development.

Funding

Funding for the Drogheda Town Centre public realm works was sourced through the URDF, via Louth County Council. The Westgate development project and St Laurence Plaza development scheme was commissioned by Louth County Council, led by its Placemaking & Physical Development Team and is funded through the URDF, a flagship initiative of Project Ireland 2040, and match funded by Louth County Council.

Results of Initiatives

- The final litter survey of 2023 by business group Irish Business Against Litter shows Drogheda is officially ‘clean’.
- Planning Application lodged in 2023 for the regeneration of Westgate area.
- St. Laurence Plaza redevelopment is being progressed and is currently under construction.

Conclusion

Given the relevance of Drogheda to Waterford City, several important insights can be gained from the success of the Town Centre initiatives in Drogheda:

- Optimize the potential of natural and historical sites within the city through the implementation of strategic regeneration initiatives. By conserving and revitalizing the riverfront and protected structures in Waterford, the city's rich cultural and natural heritage could be effectively showcased whilst simultaneously fostering economic growth and development within the local business community.
- Organising programmes and campaigns to raise awareness among business owners in the town centre with the aim of establishing Business Improvement Districts (BIDs).

Blackpool UK

Introduction

Blackpool is a coastal town in Lancashire, England located in close proximity to Liverpool, Manchester and Leeds. It has been a popular destination for domestic tourism since the mid-nineteenth century however with the growing popularity of overseas tourism since the end of the twentieth century, Blackpool has experienced economic decline which has significant impacts its retail sector. Blackpool Council has taken proactive measures working in partnership with the private sector to reserve the economic and physical decline of the town centre and to revitalise the retail sector.

Houndshill Shopping Centre

In 2019, Blackpool Council purchased the Houndshill Shopping Centre with an adjoining multi-storey car park, Abingdon Street market and an adjacent vacant site for £48 million. This move was made to secure the future of the shopping centre following its descent into receivership. Despite losing Debenhams as its key anchor in 2021, Ellandi replaced the original asset manager in 2022. Their brief was to ensure that the centre continued to produce returns for the Council that aligns with the Town Centre Strategy and the successful development of an IMAX cinema and Wilkinson's store. The Council's objectives include:

- A holistic approach that treats Houndshill as part of a much larger plan and makes it an engine for change across the town.
- A space that will serve its community by driving regional and national footfall, cementing Blackpool's position as a designation and acting as a key contributor to the local economy.
- A space that makes the town an attractive prospect for future investors and drives ambition for social and economic change across the town.

In addition to appointing a new asset manager for Houndshill, several other actions by Blackpool Council aimed to tackle the town's retail challenges:

A new leisure anchor for Blackpool

Blackpool Council had agreed terms of lease for a new cinema complex anchored by a new IMAX cinema, restaurant and Wilkinson's store. The project was in difficulty with the existing store manager. Ellandi's development team had been appointed to manage them more effectively and liaise with the key tenants to ensure delivery of project that works for the occupiers and Blackpool more generally.

Addressing the oversupply of retail

Ellandi identified a significant oversupply of retail floorspace within the town centre. They anticipated that 75% of the shopping centre's income would expire over the next five years due to lease expiry

dates. Combining this data with research from asset management and development teams, they established a comprehensive leasing and repurposing strategy for the shopping centre and adjacent streets. This focuses on the rationalisation of the existing portfolio; relocation of surrounding tenants and the introduction of alternative/food and beverage uses to complement the current retail offer.

Reimagining Victoria Street

Victoria Street is a major retail thoroughfare in Blackpool town centre. Connecting the waterfront to the winter gardens, it has the potential to be an incredibly prominent location within the town centre. However, it has suffered from significant under-investment. Ellandi is creating a concept design for this space, introducing higher quality paving, lighting, street furniture and planting to vastly improve the streetscape and create a new identity.

Key Outcomes

Houndshill has consistently outperformed similar secondary centres in northern England by maintaining a high-quality line up of prominent, national fashion tenants. The closure of Debenhams was a threat to long term occupancy and income. Ellandi have successfully completed a lease with Frasers Group to take c. 95,000 sq. ft to deliver Frasers, Flannels, Game, Sports Direct and a beauty hall.

Key Findings

Several important learnings can be taken from the Houndshill Shopping Centre case study. These include:

- The acquisition/purchase of commercial property by local authorities can help realise retail objectives within town and village centres. By bringing private commercial buildings into public ownership, opportunities are created to change asset management structures in order to improve the quality and longevity of retail centres such as Houndshill.
- Creating links between Council-led initiatives regarding retail and public realm can result in benefits for town and village centres more generally. As seen through the Houndshill acquisition, the improvements made to the shopping centre had ‘spill-over’ benefits for Victoria Street. By working to keep Houndshill operational, footfall volume has been retained along Victoria Street, benefitting other retailers along the street.

Appendix 4 Proposed District Centre Boundaries

Figure 115: Proposed Ardkeen District Centre Boundary

Figure 116: Proposed Kilbarry District Centre Boundary

Figure 117: Proposed Waterford Shopping Centre Lisduggan District Centre Boundary

Figure 118: Proposed Ferrybank District Centre Boundary

Appendix 5 Waterford City Centre Opportunity Sites

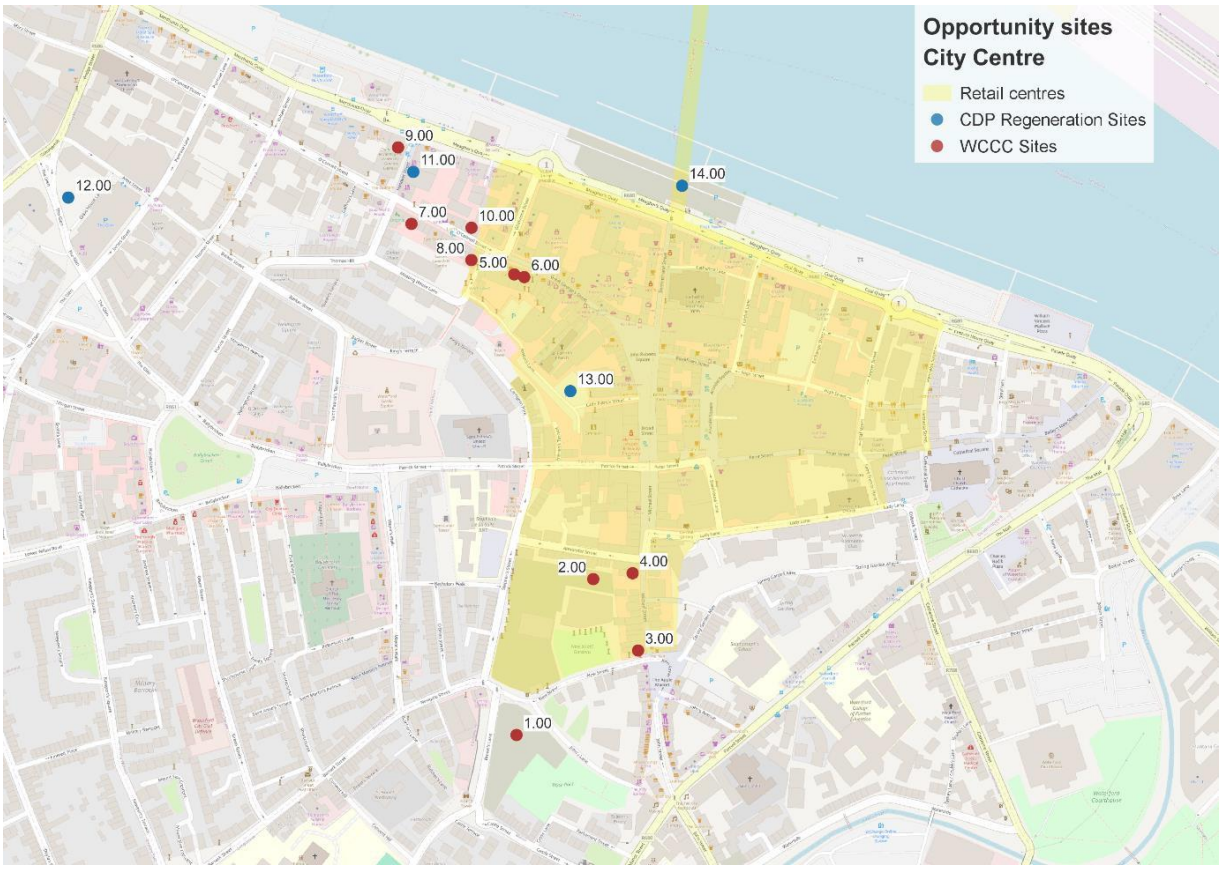
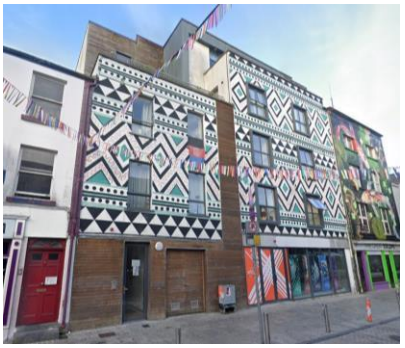


Figure 119: Map of Waterford City Centre Opportunity Sites

Site ID and Name	ID: 9.00 The Granary
Site Location and Surroundings	The Granary is located on Hanover St and Merchants Quay in Waterford City Centre and currently occupied by Waterford School of Architecture SETU. Existing and surrounding uses include: The Granary Café (on-site), Waterford School of Architecture SETU (on-site), Café Goa Restaurant, The Rendezvous Café French Café, Phoenix Yard Market, Waterford Greenway Bike Hire.
-Site Area	Approx 753 m²
Ownership	WCCC
Key Planning Policy	The site is located outside of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.''

	Further select policies for Waterford City Retail Policy Objectives are set below: • ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s Retail Core Area as the primary shopping area. • W City Retail 04: City Centre First Approach - The Retail Core Area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ The site is within the Waterford Cultural Quarter: “The Cultural Node around O’Connell Street and Garter Lane – The Waterford Cultural Quarter.” “The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation.” The Waterford Cultural Quarter Strategic Plan 2021-2025 has included The Granary with below statement: “The Granary building is leased from Waterford City and County Council to the Granary Café and to Waterford Institute of Technology (WIT) Architecture Department. The Architecture Department runs its academic programmes from this location on O’Connell Street and brings a valuable addition to the vibrancy of the area while also being an important resource for urban study and research on the Waterford Cultural Quarter area.” Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: “To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within.

	To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." Specific Development Objective – WCDO13 It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter. Summary ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. P8 02/23 – City of Lights, Urban Animation Scheme – N/A Ref. 20401 - Granary Café Section 254 Licence for Outdoor Seating – Granted 04/08/2020. Adjoining Sites Ref. 23196 - Cafe Goa Restaurant ground floor alteration and extension – Granted 11/01/2024
Funding	N/A
Recommendation	Maintain the current educational and café use of the Granary Building as the city centre campus for SETU Department of Architecture, while preserving the architectural heritage of the area. Recommendation: not recommended for new retail development; the site is in alternative productive use.

Site ID and Name	ID: 7.00 16, 17 & 18 O'Connell Street
Site Location and Surroundings	The site is located on O'Connell Street in Waterford City Centre. Surrounding uses include Waterford Gallery of Art, Garter Lane Arts Centre, Thomas Maher bar, Tully's Bar Waterford, Phoenix Yard Market, Lam's & Eskimo Pizza Waterford, NCBI Waterford (charity shop). 
Site Area	Approx 235.71 m²
Ownership	WCCC
Key Planning Policy	The site is located outside of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.''

	Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' The site is within the Waterford Cultural Quarter: "The Cultural Node around O'Connell Street and Garter Lane – The Waterford Cultural Quarter." "The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation." Relevant actions stated in Waterford Cultural Quarter Strategic Plan 2021-2025: o Collaborate with WCQ stakeholders to utilise buildings as a class rooms, meeting rooms with hot desks for art projects, workshop space for craft workers, rotating artistic display area (window), weekend drama classes, visual arts classes for youths of the area, cooking demonstrations. o Investigate buildings in the O'Connell Street area with potential to host pop-up style centres for artists and cultural practices. o Endeavour to ensure that street level spaces of buildings in the WCQ can be prioritised for access to cultural spaces to entice locals and visitors to participate in activities. Specific Development Objective – WCDO13

	"It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter." ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 04500589 – Construction of single retail unit with 3-4 storeys above comprising 3 no. one-bedroom and 16 no. two-bedroom apartments – Granted on appeal 15/09/2005. Ref. 07500386 – Subdivide the existing retail unit into 2 retail units – Granted 26/11/2007. Adjoining Sites Ref. 23228 – Tully's Bar renewal of S254 Licence for outdoor table and chairs on O Connell Street – Granted 11/09/2023. Ref. 23171 – Thomas Maher Pub renewal of S254 Licence for outdoor table and chairs on O Connell Street – Granted 25/07/2023. Ref. 22706 – Phoenix Yard Market S254 Licence for outdoor table and chairs on O Connell Street – Granted 29/09/2022. Ref. 221032 – Phoenix Yard Market extend the existing permission for the sale of Food / Crafts in an artisan food and craft outdoor market – Granted 09/02/2023
Funding	
Recommendation	There is potential for the ground floor retail unit centres for artists and cultural practices and to prioritise for access to cultural spaces. Potential uses also include classrooms, meeting rooms with hot desks for art projects, workshop space for craft workers, rotating artistic display area (window), weekend drama classes, visual arts classes and cooking demonstrations. Gross floor area: 174.1 sq.m. at ground floor level. Net retail floor area: 121.87 sq.m. (i.e., 70% of 174.1 sq.m.)

Site ID and Name	ID: 10.00 The Art Gallery
Site Location and Surroundings	The site is located on O'Connell Street in Waterford City Centre currently houses the Waterford Gallery of Art. Surrounding uses include: Waterford Gallery of Art (on-site), Garter Lane Theatre, Lam's & Eskimo Pizza Waterford, V&M Perfect Garden, HD Keane & Solicitors, Southern Regional Assembly.
Site Area	Approx 205 m²
Ownership	WCCC
Key Planning Policy	The site is located near the boundary but outside of the Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres.

	• Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' The site is within the Waterford Cultural Quarter: "The Cultural Node around O'Connell Street and Garter Lane – The Waterford Cultural Quarter." "The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation." The Waterford Cultural Quarter Strategic Plan 2021-2025 has included Waterford Gallery of Art (WGOA) with below statement: "Moved to its new location at 32/33 O'Connell Street and opened its doors in 2020. WGOA is home to a permanent collection, the Waterford Municipal Art Collection, started by the Quaker community in the 1930s." Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: "To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within.

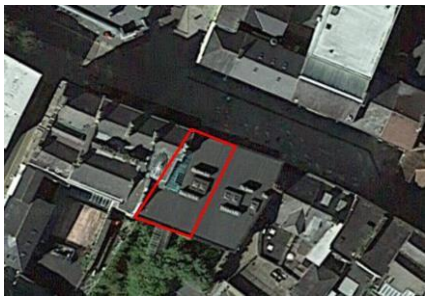
	To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." Specific Development Objective – WCDO13 "It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter." ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 00500012 – Alteration and extension to the existing building (Protected Structure) – Granted 29/02/2000. Ref. P8 02/23 – City of Lights, Urban Animation Scheme. – N/A Adjoining Sites Ref. 16167 - Southern Regional Assembly change of ground floor and basement from pub to offices – Granted 05/05/2016
Funding	
Recommendation	Maintain the current use of the building as Waterford Gallery of Art, preserve architectural heritage while exploring opportunities for maximum public visibility of the cultural activities and engagements. Recommendation: not recommended for new retail development; the site is in alternative productive use.

Site ID and Name	ID: 8.00 25 & 26 O'Connell Street
Site Location and Surroundings	The site is located on O'Connell Street in Waterford City Centre. Surrounding uses include: Waterford Gallery of Art, Garter Lane Arts Centre, Southern Regional Assembly, Waterford Chamber of Commerce, V&M Perfect Garden, Brophy Cusack Real Estate.
Site Area	Approx 213.89 m²
Ownership	WCCC
Key Planning Policy	The site is located at the junction of O'Connell Street and Great George's Street, on the boundary of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres.

	• Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' The WCC CDPWCC CDP designated Zone 1 street types including the site: "Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George's Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter's Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined." The site is within the Waterford Cultural Quarter: "The Cultural Node around O'Connell Street and Garter Lane – The Waterford Cultural Quarter." "The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation."

	Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: "To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within. To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." Relevant actions stated in Waterford Cultural Quarter Strategic Plan 2021-2025: o "Collaborate with WCQ stakeholders to utilise buildings as a class rooms, meeting rooms with hot desks for art projects, workshop space for craft workers, rotating artistic display area (window), weekend drama classes, visual arts classes for youths of the area, cooking demonstrations. o Investigate buildings in the O'Connell Street area with potential to host pop-up style centres for artists and cultural practices. o Endeavour to ensure that street level spaces of buildings in the WCQ can be prioritised for access to cultural spaces to entice locals and visitors to participate in activities. o Explore different options to make WCQ buildings socially inclusive for all who wish to use them." ▪ Specific Development Objective – WCDO13 "It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter." ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 03500563 – Demolition of existing building and construction of 4 storeys apartments and 2 storeys car park and office – Granted 01/07/2004 – Not constructed. Adjoining Sites Ref. 03500110 – Change of use from office to medical use – Granted 30/04/2003.

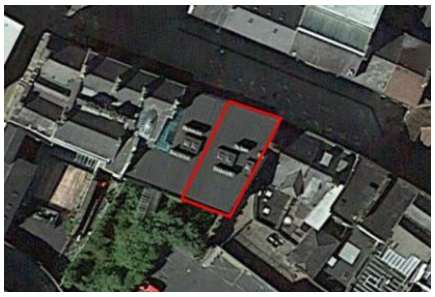
	Ref. 16167 - Southern Regional Assembly change of ground floor and basement from pub to offices – Granted 05/05/2016. Ref. 21825 – Change of use from hair salon to auctioneer's office – Granted 21/10/2021
Funding	Public funding has been secured for this site through the Waterford City Centre Regeneration URDF which provides €48m for 22no. individual projects focused on six key areas. This Opportunity Site forms part of the Beach Tower Square and Jenkins Land development area. The first phase of this development will focus on refurbishing 3 & 4 Georges Street for a GOVLAB and Smart City Headquarters. A Masterplan is being prepared for Beach Tower Square and Jenkins Land development area by WCCC in collaboration with WIT which will set out development objectives for the area.
Recommendation	Considering the location of the site at the edge of the Retail Core Area and the close proximity to other arts and cultural uses, the building has the potential to be used as cultural spaces to host pop-up style centres for artists and cultural practices or as a class rooms, meeting rooms with hot desks for art projects, work shop space for craft workers, rotating artistic display area (window), week end drama classes, visual arts classes for youths of the area, cooking demonstrations. Higher/medium order retail use would also be suitable for ground floor, with other non-retail uses such as pubs, cafés, restaurants can also be considered. Gross floor area: 204.47 sq.m. at ground floor level. Net retail floor area: 143.12 sq.m. (i.e., 70% of 204.47).

Site ID and Name	ID: 5.00 3 Great George's Street
Site Location and Surroundings	The site is located on Great George's Street in Waterford City Centre. Surrounding uses include: Waterford Gallery of Art, Garter Lane Arts Centre, Southern Regional Assembly, Waterford Chamber of Commerce, Brophy Cusack Real Estate, John Palmer Music Centre, Bell Pepper Waterford. 
Site Area	Approx 159.59 m²
Ownership	WCCC
Key Planning Policy	The site is located within the boundary of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below:

	• ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ The WCC CDPWCC CDP designated Zone 1 street types including the site: “Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George’s Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter’s Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined.” The site is located on the edge of the Waterford Cultural Quarter: “The Cultural Node around O’Connell Street and Garter Lane – The Waterford Cultural Quarter.” “The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation.” Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: “To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within.

	To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." The site (3&4 Great Georges Street) has been included in Waterford Cultural Quarter Strategic Plan 2021-2025 with below statement: "(The Presbytery) These buildings are in the ownership of the Diocese of Waterford and Lismore and are on lease to Waterford City and County Council. They are on the Record of Protected Structures registry maintained by WCCC. These buildings have many potential uses including third level and / or enterprise uses by WIT or a private developer or as a centre for cultural production /training, bearing in mind their position as an important and prominent feature of the streetscape, contributing to the sophisticated and historic character of Great George's Street." Specific Development Objective – WCDO13 "It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter." ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. P8 02/23 – City of Lights, Urban Animation Scheme – N/A Ref. 22142 – S245 Licence for Outdoor seating area – Refused 20/04/2022 – 3&4 Great George St is not a hotel, restaurant, public house or other establishment where food is sold therefore S245 does not apply. A Adjoining Sites Ref. 16700 – Retention of change of use from retail to tea tooms at ground floor – Granted 01/06/2017. Ref. 16565 – Change of use from shop to restaurant with associated retail element – Granted 13/10/2016
Funding	Public funding has been secured for this site through the Waterford City Centre Regeneration URDF which provides €48m for 22no. individual projects focused on six key areas. This Opportunity Site forms part of the Beach Tower Square and Jenkins Land development area. 3 Georges Street is a part of the first phase of this development that will focus on refurbishing the development area for a GOVLAB and Smart City Headquarters.

Recommendation	The building has the potential uses including third level and / or enterprise uses by SETU or a private developer or as a centre for cultural production /training, bearing in mind the important architectural heritage of the area. Gross floor area: 197.6 sq.m. at ground floor level. Net retail floor area:138.32 sq.m. (i.e., 70% of 197.6).

Site ID and Name	ID: 6.00 4 Great George's Street
Site Location and Surroundings	The site is located on Great George's Street in Waterford City Centre. Surrounding uses include: Waterford Gallery of Art, Garter Lane Arts Centre, Southern Regional Assembly, Waterford Chamber of Commerce, Brophy Cusack Real Estate, John Palmer Music Centre, Bell Pepper Waterford. 
Site Area	Approx 180.50 m²
Ownership	WCCC
Key Planning Policy	The site is located within the boundary of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below:

	• ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ The WCC CDP designated Zone 1 street types including the site: “Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George’s Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter’s Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined.” The site is located on the edge of the Waterford Cultural Quarter: “The Cultural Node around O’Connell Street and Garter Lane – The Waterford Cultural Quarter.” “The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation.” Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: “To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within.

	To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." The site (3&4 Great Georges Street) has been included in Waterford Cultural Quarter Strategic Plan 2021-2025 with below statement: "(The Presbytery) These buildings are in the ownership of the Diocese of Waterford and Lismore and are on lease to Waterford City and County Council. They are on the Record of Protected Structures registry maintained by WCCC. These buildings have many potential uses including third level and / or enterprise uses by WIT or a private developer or as a centre for cultural production /training, bearing in mind their position as an important and prominent feature of the streetscape, contributing to the sophisticated and historic character of Great George's Street." Specific Development Objective – WCDO13 "It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter." ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. P8 02/23 – City of Lights, Urban Animation Scheme – N/A Ref. 22142 – S245 Licence for Outdoor seating area – Refused 20/04/2022 – 3&4 Great George St is not a hotel, restaurant, public house or other establishment where food is sold therefore S245 does not apply. A Adjoining Sites Ref. 16700 – Retention of change of use from retail to tea tooms at ground floor – Granted 01/06/2017. Ref. 16565 – Change of use from shop to restaurant with associated retail element – Granted 13/10/2016
Funding	Public funding has been secured for this site through the Waterford City Centre Regeneration URDF which provides €48m for 22no. individual projects focused on six key areas. This Opportunity Site forms part of the Beach Tower Square and Jenkins Land development area. 4 Georges Street is a part of the first phase of this development that will focus on refurbishing the development area for a GOVLAB and Smart City Headquarters.

Recommendation	The building has potential uses including third level and / or enterprise uses by SETU or a private developer or as a centre for cultural production /training, bearing in mind the important architectural heritage of the area. Gross floor area:196.3 sq.m. at ground floor level. Net retail floor area: 137.4 sq.m. (i.e., 70% of 196.3).

Site ID and Name	ID 4.00 13 Michael Street
Site Location and Surroundings	The site is located on Michael Street in Waterford City Centre. Surrounding uses include: Finders Keepers Gift Shop (on-site), Phone Land, Yakuza Tattoo Shop, Gentleman's Barbershop.
Site Area	Approx 55.79 m²
Ownership	WCCC
Key Planning Policy	Location in Retail Core Area. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres.

	• Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' The WCC CDP designated Zone 1 street types: "Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George's Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter's Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined." W City Retail 06: Multifunctional Centres We will support the development of Waterford City Centre, Suburban District Centres and Neighbourhood Centres as accessible, multifunctional centres which are of a high-quality urban realm and placemaking standard, which provide a variety of uses at an appropriate scale, which facilitate the development of the City's 10-minute neighbourhood concept and meet the needs of the communities they serve. In relation to the Retail

	Core Area in Waterford City Centre we will promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets set out in Table 3.4. ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 21365 - Section 254 Licence Application - tables and chairs outside premises - Refused: 08/06/2021 - Not a hotel, restaurant, public house or other establishment where food is sold therefore S245 does not apply.
Recommendation	Considering the Retail Core Area location, surrounding uses, and previous use as footwear shop, the ground floor unit of the building would be suitable for higher/medium order retail use. It is noted that the site is currently occupied by 'Finders Keepers' gift shop, it is considered appropriate to maintain the current use or promote similar retail uses to sustain the primary retail function of the street. Gross floor area:155.32 sq.m. at ground floor level. Net retail floor area: 108.72 sq.m. (i.e., 70% of 155.32).

Site ID and Name	ID 2.00 Michael St Car Park Site
Site Location and Surroundings	The site is located on Michael Street in Waterford City Centre including the former WCCC multi storey New St Car Park and other derelict structures. Surrounding uses include: HIO Electrics (on-site), Christy's Tree Service (on-site), Finders Keepers Gift Shop, Phone Land, Yakuza Tattoo Shop, Gentleman's Barbershop.
Site Area	Approx 1.42ha
Ownership	WCCC
Key Planning Policy	Located in Retail Core Area, with frontages along zone 1 (Michael St) and Zone 2 (New St). Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres.

	• Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' The WCC CDP designated Zone 1 street types: "Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George's Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter's Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined.". W City Retail 06: Multifunctional Centres We will support the development of Waterford City Centre, Suburban District Centres and Neighbourhood Centres as accessible, multifunctional centres which are of a high-quality urban realm and placemaking standard, which provide a variety of uses at an appropriate scale, which facilitate the development of the City's 10-minute neighbourhood concept and meet the needs of the communities they serve. In relation to the Retail

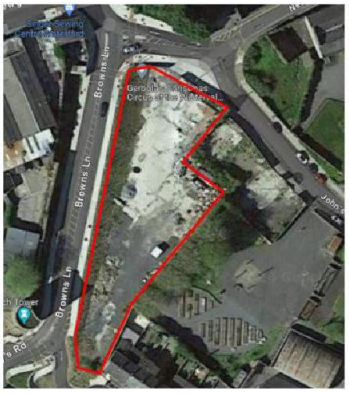
	Core Area in Waterford City Centre we will promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets set out in Table 3.4. Regeneration and Opportunity Sites OPS27 The site has been included in the CDP as part of regeneration site OPS27 with below vision: o Development on this key city centre site should provide strong architectural design within the City Conservation Area. o Create a sustainable and compact urban quarter through a mixed-use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living. o It will be vital that pedestrian and cycle links through the site are incorporated into the design of any proposed development. o Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. o Any development should incorporate natural assets and include potential open space and provide green infrastructure links to Wyse Park. o The development should address the extensive street frontage of the site and be designed to an exceptional standard. o The site has potential to accommodate taller building(s). ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 16175 - Date Granted 23/08/2016 (Includes lands for Former WIT): (i) a shopping centre principally bounded by Alexander St to the north; Michael St to the east; Stephen's St to the west and New St to the south (total gross retail area of 10,030sqm and cafe/restaurant area of 635sqm) (ii) a multi-storey car park principally bounded by John's Lane to the north; Wyse Park, the Quaker graveyard and the rear of existing structures to the east and south and Brown's Lane to the west. (iii) Demolition of existing structures.

	(iv) provision of a new landscaped urban garden at St Stephen's Graveyard Ref. 06/526 & Pl.31.224299 – Date Granted: 02/07/2007 (Includes lands for Former WIT): The proposed development will consist of demolition and development of approx. 2.13ha site comprising a shopping centre with 60 no retail units (c. 20,000sq.m gross), 107-bed hotel, 26 no apartments, 11 no office units. The retail, commercial, residential, tourism, leisure & community amenity elements.
Recommendation	Considering the previous planning history of the site, the site is suitable for new retail development as part of a high-density scheme alongside a mix of tourism, employment, and residential city living together with the Former WIT Site (ID 1.00). Recommendation: the site has capacity to accommodate up to c. 20,000sqm gross/16,000sq.m net retail floor space over two or more level together with the Former WIT Site (ID 1.00).

Site ID and Name	ID 3.00 25 Michael Street
Site Location and Surroundings	The site is located on Michael Street in Waterford City Centre. Existing and Surrounding uses include: The Rogue (on-site), The Hub, Joe's Family Butcher, Widgers Butcher, Irish E-Juice Direct.
Site Area	Approx 36.62 m²
Ownership	WCCC
Key Planning Policy	Location in Retail Core Area, zone 1. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below:

	• ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ The WCC CDP designated Zone 1 street types: “Includes the main shopping streets of Michael Street, Broad Street, Barronstrand Street, Great George’s Street, Blackfriars Street, Arundel Lane, Arundel Square and Peter’s Street within Waterford City Retail Core Area. In order to strengthen the retail offer of these streets, the land-use objectives will be in favour of higher/medium order retail use at ground floor level. Proposals for service outlets such as, call centres, bookmakers, take-aways, amusement arcades and casinos will be discouraged at ground floor level. Other non-retail uses such as pubs, cafés, restaurants, will be considered on their merits; such developments will be permitted provided the primary retail function of the street will not be undermined.”. W City Retail 06: Multifunctional Centres We will support the development of Waterford City Centre, Suburban District Centres and Neighbourhood Centres as accessible, multifunctional centres which are of a high-quality urban realm and placemaking standard, which provide a variety of uses at an appropriate scale, which facilitate the development of the City’s 10-minute neighbourhood concept and meet the needs of the communities they serve. In relation to the Retail Core Area in Waterford City Centre we will promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets set out in Table 3.4.

	Regeneration and Opportunity Sites OPS27 The site has been included in the CDP as part of regeneration site OPS27 with below vision: o Development on this key city centre site should provide strong architectural design within the City Conservation Area. o Create a sustainable and compact urban quarter through a mixed-use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living. o It will be vital that pedestrian and cycle links through the site are incorporated into the design of any proposed development. o Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. o Any development should incorporate natural assets and include potential open space and provide green infrastructure links to Wyse Park. o The development should address the extensive street frontage of the site and be designed to an exceptional standard. o The site has potential to accommodate taller building(s). ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site: NA
Recommendation	The site is located on the edge of the Retail Core Area and used as an art gallery. Considering the fact of being included in regeneration site OPS27, it is recommended to maintain the current use of the building as art gallery until the regeneration site being developed to create a sustainable and compact urban quarter through a mixed-use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living.

Site ID and Name	ID 1.00 Former WIT
Site Location and Surroundings	The site is a vacant site located in Waterford City Centre bound by New St, Johns Ln, and Browns Ln. Surrounding uses include: residential terraced properties to the south/southeast, Wyse Park to the east and the Michael Street Shopping Centre Opportunity Site (ID 2.00) to the North. 
Site Area	Approx 2,660.27 m²
Ownership	WCCC
Key Planning Policy	Outside of the Retail Core Area. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.''

	Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' Vibrancy & Vitality: Land Use Mix Policy Objectives W City 09 In the interest of vitality and viability of the city centre and the delivery of a vibrant diverse community and mix of uses across the city centre we will: ○ Manage the spread of uses that could lead to a reduction in the attractiveness of, and the retailing function of the principal shopping streets. ○ Promote and support the provision of retail, service and employment uses across the city centre in order to enhance its commercial resilience and vitality and the experience of visitors and residents alike while managing the extent of retail and commercial developments, of a type and scale which are more appropriate to the City Centre, outside the central area. ○ Promote and enhance the evening economy in the City Centre with a view to enhancing the function of the broader City Centre area in this regard. ○ To adhere to the principle of the primacy of the City Centre as set out in the Retail Planning: Guidelines for Planning Authorities 2012 (DOECLG) and the Waterford City and County Retail Strategy.

	Facilitate where appropriate “meanwhile uses” and temporary uses of vacant or underutilised properties/opportunity sites where such uses are consistent with the proper planning and sustainable development of the area. ‘’In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.’’
Planning applications	Subject Site Ref. 16175 - Date Granted 23/08/2016 (Includes lands for Former WIT): (i) a shopping centre principally bounded by Alexander St to the north; Michael St to the east; Stephen's St to the west and New St to the south. (ii) a multi-storey car park principally bounded by John's Lane to the north; Wyse Park, the Quaker graveyard and the rear of existing structures to the east and south and Brown's Lane to the west. (iii) Demolition of existing structures. (iv) provision of a new landscaped urban garden at St Stephen's Graveyard Ref. 06500526 – Date Granted: 02/07/2007 (Includes lands for Former WIT): For mixed use development on site bounded by Stephen Street, Alexander Street, Michael Street, New Street and former WIT New Street campus bounded by Wyse Park, Browns Lane, John's Lane, Castle Street and New Street. The proposed development will consist of demolition and development of on approx. 21,300 sq. m. (2.13 hectares) retail, commercial, residential, tourism, leisure & community amenity elements.
Recommendation	Given the site planning history, city centre location, and the close proximity to regeneration site OPS27, the site has the potential to be developed concurrently with site OPS27 to provide for new retail development as part of a high-density scheme alongside a mix of tourism, employment, and residential city living.

Site ID and Name	ID: 11.00 Munster Express 37 Merchant's Quay
Site Location and Surroundings	The site is the Munster Express located on Merchant's Quay in Waterford City Centre. Existing and Surrounding uses include: The Munster Express (on-site), The Granary Café, Waterford School of Architecture SETU, The Rendezvous Café, Phoenix Yard Market.
Site Area	Approx 898 m²
Ownership	Munster Express
Key Planning Policy	The site is located outside of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.''

	Further select policies for Waterford City Retail Policy Objectives are set below: • ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ The site is within the Waterford Cultural Quarter: “The Cultural Node around O’Connell Street and Garter Lane – The Waterford Cultural Quarter.” “The linear streetscape of fine buildings which was once the business and enterprise hub of Waterford now offers an opportunity to repurpose the area to support liveability, knowledge, experimentation, creativity and innovation.” The Waterford Cultural Quarter Strategic Plan 2021-2025 has included Munster Express as “buildings in private ownership that could potentially be repurposed for cultural and creative uses” with below statement: “Munster Express newspaper production offices and old print works - These are two significant buildings in the WCQ area located on Hanover Street and Thomas Hill. Both buildings have substantial heritage and cultural linkages to the area as well as housing businesses and organisations such as South East Maker Space (SEMS)” Waterford Cultural Quarter Strategic Plan 2021-2025 Objective: “To increase the use of WCQ buildings, bearing in mind the important architectural heritage of the area, creating maximum public visibility of the cultural activities and engagements that are accommodated within.

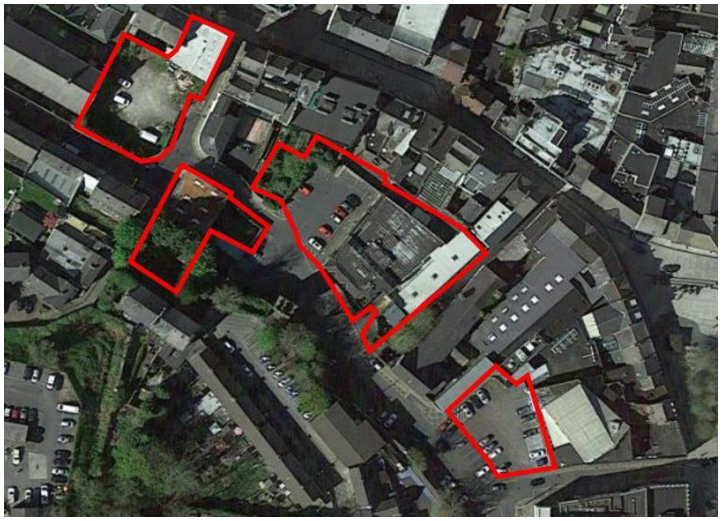
	To establish a number of well managed buildings within WCQ to become inclusive spaces that can be used as hubs of activity for groups and organisations while tackling vacancy rates in the area." Specific Development Objective – WCDO13 It is the objective of the Council to enhance the pedestrian environment in and around O'Connell Street and Waterford Cultural Quarter. ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Proposed Part 8 development - Munster Express building (37 Merchant's Quay, Waterford) CONSULTATION END DATE: 15th August 2023. The development will consist of: Refurbishment works to 37 Merchant's Quay, including removal of internal partitions, new roof, removal of western chimney and newly constructed lift to rear. Construction of a three-storey building, connected with 37 Merchant's Quay, to provide exhibition, workshop and office spaces, with plant, data collection, and solar energy generation infrastructure at roof level. The development will require the removal of existing warehousing and commercial units along the eastern side of Hanover St. extending to, and including, 41 O'Connell St. Other works will include the provision of substation, lifts, hard landscaping and public realm enhancements directly connected with the development proposals. Ref. P8 02/23 - City of Lights, Animation Scheme – N/A Ref. 00508888 - Retention of change of use from shop to hackneys/taxi office – Granted 28/07/1994.
Funding	Public funding has been secured for this site through the Waterford City Centre Regeneration URDF which provides €48m for 22no. individual projects focused on six key areas. This Opportunity Site is located near the Hanover Street Plaza which forms part of the future elements of the Cultural Quarter Projects across

	Waterford City Centre. Other Opportunity sites in this area includes Clarendon Court, 7 Thomas Street, and 8 Thomas Street.
Recommendation	To facilitate the delivery of Part 8 development to provide exhibition, workshop and office spaces which will respond to actively to Waterford Cultural Quarter Strategic Plan 2021-2025. Recommendation: not recommended for new retail development over the lifetime of the Waterford MASP – planning permission recently granted for alternative use.

Site ID and Name	ID: 12.00 O'Byrne Garage Site - Regeneration Site OPS26
Site Location and Surroundings	The site is located on The Glen in Waterford City Centre. Existing and Surrounding uses include: O'Byrne's Garage (on-site), ALDI, Revenue Regional Office.
Site Area	Approx 0.1Ha
Ownership	n/a
Key Planning Policy	The site is located outside of Core Retail Shopping Area as designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below:

	• ‘’W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre’s retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.’’ Regeneration and Opportunity Site OPS26: the site is identified in the CDP as part of regeneration site OPS26 with the below objectives: o Potential mixed-use development. o The development should address the street frontage of The Glen/ Glasshouse Land and be designed to an exceptional standard. o The site has potential to accommodate taller building(s). Regeneration Policy Objectives: To maximise the efficient use of existing infrastructure and services and promote a positive modal shift towards sustainable transport use, we will facilitate the sustainable, compact, sequential regeneration and redevelopment of urban areas through the appropriate development of identified key infill and brownfield sites as per Table 3.2 and Appendix 21 for a mix of uses appropriate to the location. To assist in this regard, we will carry out a viability assessment for key brownfield sites during the lifetime of the development plan with a view to assisting in delivery of regeneration projects. Development proposals which are not fully consistent with the provisions of the land use zoning matrix (Volume 2 – DM Standards Table 11.2) will be considered on their own merits where it can be demonstrated that the proposed development is consistent with the ‘Vision’ for the site and is in accordance with the proper planning and sustainable development of the area.

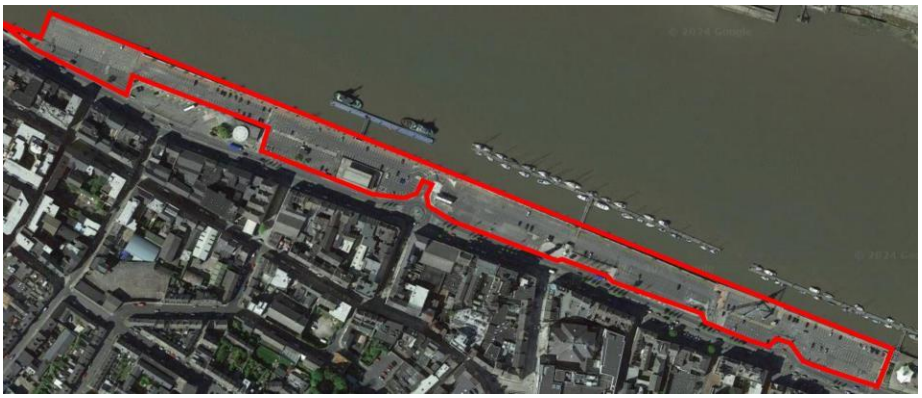
	''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 05500594 – Demolition of 4 no. dwellings and construction of 4-storey mixed developments – Granted 21/09/2006 – Not constructed.
Recommendation	Development of mixed-use development of increased building height with active ground floor commercial frontages in line with CDP Regeneration zoning objectives and potential to accommodate improved/rationalised City Centre car parking as part of a mixed-use development subject to the findings of the City Centre Car Parking Strategy. Gross floor area: 1,132.2 sq.m. at ground floor level. Net retail floor area: 792.54 sq.m. (i.e., 70% of 1,132.2).

Site ID and Name	ID: 13.00 Jenkins Lane Site - Regeneration Site OPS04
Site Location and Surroundings	The sites are located along Little Patrick St in Waterford City Centre. Existing and Surrounding uses include: Car parking (on-site), vacant, SignPro (on-site), Mighty Tweezers beauty salon, Waterford Heritage Services, Halim's Barber Shop. 

Site Area	Approx 0.48Ha
Ownership	n/a
Key Planning Policy	The site is partly located within the Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by

	a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' Regeneration and Opportunity Sites OPS04: the site is identified in the CDP as regeneration site OPS04 with below vision: o Development on this key city centre infill site should provide strong architectural design within the City Conservation Area. o Create a sustainable and compact urban quarter through a mixed-use high-density development with an emphasis on employment, retail, apartments and residential city living. o It will be vital that pedestrian and cycle links from Great George's to Patrick Street are incorporated into the design of any proposed development. o Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. o Any development should incorporate natural assets (city walls etc.) include potential open space and provide green infrastructure links. o Potential Housing Yield 10 Units. Regeneration Policy Objectives: To maximise the efficient use of existing infrastructure and services and promote a positive modal shift towards sustainable transport use, we will facilitate the sustainable, compact, sequential regeneration and redevelopment of urban areas through the appropriate development of identified key infill and brownfield sites as per Table 3.2 and Appendix 21 for a mix of uses appropriate to the location. To assist in this regard, we will carry out a viability assessment for key brownfield sites during the lifetime of the development plan with a view to assisting in delivery of regeneration projects. Development proposals which are not fully consistent with the provisions of the land use zoning matrix (Volume 2 – DM Standards Table 11.2) will be considered on their own merits where it can be demonstrated that the proposed development is consistent with the 'Vision' for the site and is in accordance with the proper planning and sustainable development of the area. ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living

	Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. 03500563 – Demolition of existing building and derelict storage building and construction of 4 storey apartments and 2 storey office and car park – Granted 01/07/2004 – Not constructed. Ref. 08500248 – single storey retail extension – Granted 12/09/2008.
Recommendation	Observe the vision set out for the sites and create a sustainable and compact urban quarter through a mixed-use high-density development with an emphasis on employment, retail, apartments and residential city living. Recommendation: the site has capacity to accommodate up to c. 2,000sq.m. net retail floor space at ground floor level based on a maximum building footprint of c. 4,791 sq.m.

Site ID and Name	ID: 14.00 The South Quays - Regeneration Site OPS19
Site Location and Surroundings	South Quays in Waterford City Centre. Existing and Surrounding uses include: Car parking (on-site), bus station (on-site), William Vincent Wallace Plaza (on-site) and various retail, restaurant, office, hotels and other commercial uses along the Quays on the opposite side of the road. 
Site Area	Approx 2.62Ha
Ownership	
Key Planning Policy	The site is located outside of Core Retail Shopping Area designated in CDP. Select policy objectives from the CDP for the Retail Shopping Areas in Co. Waterford are set out below: • ''Retail 01: Retail Guidelines – Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy.

	• Retail 02: Retail Hierarchy and Urban Centres - The type of retail development should be of an adequate level, type, size, scale and the nature of the floorspace proposed should be appropriate to Waterford City Centre having regard to the retail hierarchy and the appropriate level of development prescribed for a Regional City in Waterford. • Retail 03: Town Centre First Approach/ Sequential Approach - The Retail Core Area/town or village centre will form the main focus and preferred location for new retail development and the Council will apply the sequential approach to retail development proposals outside the Retail Core Area or town/village centre. • Retail 05: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of established retail centres. • Retail 06: Retail Impact - A Local Retail Health Check Assessment shall be required in support of applications for moderate scaled retail developments in accordance with the CDP guidelines.'' Further select policies for Waterford City Retail Policy Objectives are set below: • ''W City Retail 01: Retail Guidelines - Ensure that all proposed retail development accords with the relevant policies of the CDP, Retail Planning Guidelines (2012), Retail Design Manual, and Subsequent updates of Waterford Retail Strategy. • W City Retail 02: Retail Hierarchy - Retail development should be of a type, size and scale appropriate to the centre, and shall have due regard for the retail hierarchy and the appropriate level of development at each tier. • W City Retail 03: Primacy of City Centre - To affirm, maintain and protect the status of Waterford City Centre's retail core area as the primary shopping area. • W City Retail 04: City Centre First Approach - The retail core area will form the main focus and preferred location for new retail development. • W City Retail 05: Suburban and Neighbourhood Centres - Any proposal for significant comparison floorspace should be supported by a clear assessment as to whether such development would have a material impact on Waterford City Centre. • W City Retail 06: Multifunctional Centres - To promote active uses at street level on the principal shopping streets in the city centre retail core having regard to the criteria for Zone 1 and Zone 2 streets. • W City Retail 07: Retail Warehousing - Any application for retail warehousing will be required to demonstrate that the proposal will not impact adversely on the vitality and viability of the City Centre in accordance with relevant policies.'' Regeneration and Opportunity Sites OPS19: the site is identified in the CDP regeneration site OPS19 with below vision:

	○ Development on this key strategic city centre site should provide strong architectural design as a key landmark/ gateway to Waterford City. ○ Development should maximise the sites river location and facilitate the development of the greenway/walkway along the riverside. ○ Any development should incorporate natural assets (river side location etc.) include extensive open space and provide green infrastructure links along the quay. ○ Development will be carried out in compliance with the design framework for the South Quays as per W City 29. Regeneration Policy Objectives: To maximise the efficient use of existing infrastructure and services and promote a positive modal shift towards sustainable transport use, we will facilitate the sustainable, compact, sequential regeneration and redevelopment of urban areas through the appropriate development of identified key infill and brownfield sites as per Table 3.2 and Appendix 21 for a mix of uses appropriate to the location. To assist in this regard, we will carry out a viability assessment for key brownfield sites during the lifetime of the development plan with a view to assisting in delivery of regeneration projects. Development proposals which are not fully consistent with the provisions of the land use zoning matrix (Volume 2 – DM Standards Table 11.2) will be considered on their own merits where it can be demonstrated that the proposed development is consistent with the 'Vision' for the site and is in accordance with the proper planning and sustainable development of the area. W City 30 South Quays Design Framework: During the lifetime of the Development Plan, we will prepare a Design Framework for the South Quays. This will be dominated by public amenity and biodiversity spaces building on the imminent Waterford Greenway and Waterford to New Ross Greenway interconnection and be interspersed with commercial uses which respect the built form and historic fabric of the South Quays while interfacing with new development of scale on the North Quays. ''In the CDP, the Site is zoned Town Core in the where uses permitted in principle include Bed & Breakfast Guesthouse, Betting Office, Café/Tea House, Childcare Facility/Creche, Commercial Car Parking, Community Facility, Conference Centre, Cultural Heritage, Dwelling/Principal Private Residence, Education, Enterprise Centre/Units, Health Centres/Clinics, Home based economic activity, Hostel, Hotel/Tourist Accommodation, Kiosks, Night Uses (Night Clubs, Pubs, Fast Food, Takeaways), Nursing Home/Assisted Living Units, Office, Off License, Open Space (Amenity), Park/Playground, Petrol Station (incl. convenience shop), Public House, Residential Scheme, Restaurant, Retail Comparison Goods, Retail Convenience (corner/ neighbourhood shop), Retail Food (Supermarket), Student Accommodation, Traveller Accommodation, and Veterinary Surgery.''
Planning applications	Subject Site Ref. P8 05/19 - Sustainable Transport Bridge – N/A

	Various car park related planning applications
Recommendation	Provide developments with strong architectural design which will be dominated by public amenity and biodiversity spaces building on the imminent Waterford Greenway and Waterford to New Ross Greenway interconnection and be interspersed with commercial uses which respect the built form and historic fabric of the South Quays while interfacing with new development of scale on the North Quays. Recommendation: not recommended for significant new retail development over the lifetime of the Waterford MASP. Suitable for smaller scale retail service, leisure and other commercial units to complement public amenity outdoor space.

Appendix 6 Commercial Planning Applications

Ref no.	Address	Development Summary	Decision	Date	Status
19322	Former Bank of Ireland site, Parnell Street/The Applemarket, Waterford.	Change of use from office/service use to café.	Granted	2019-07-04	Complete
19335	Former Intacta Print Unit, Otteran Place, South Parade, Waterford	Change of use from existing light industrial to Co-working office space to part of ground and first floor of existing building.	Granted	2019-07-09	Not commenced
20234	10 The Mall, Waterford City	Change of use of the ground floor from office to retail.	Granted	2020-07-07	Complete
19928	Waterford North Quays, Dock Road, Ferrybank, Waterford	A ten-year permission for a 129,302sq.m. gross proposed mixed use development on a 7.8 ha site comprising: **29,037 sq.m. retail**; **6,702 sq.m. Food and Beverage**; **2,859sq.m. Leisure Facility**; **3,535sq.m. Cinema** and **5,806sq.m. Visitor Centre;** a 222-bed Hotel; 14,165sq.m. Office Accommodation and 298no. Residential Units.	Granted 10/07/2020	2020-07-10	Not commenced
20236	87 and 88 Meagher's Quay, Waterford	Change of use from retail to financial services/offices and subdivision of existing unit to create 2 no. units.	Granted	2020-09-10	Commenced - Change of use from shop to financial services/offices and subdivision of ground floor into 2 premises with shared facilities.
20619	Units B3 and B4 Railway Square, Waterford	Change of use from retail to office use, amalgamation of units B3 and B4 and a 76 sqm ground floor extension to create a 1,751 sqm office unit.	Granted	2020-10-22	Not commenced

Ref no.	Address	Development Summary	Decision	Date	Status
2010	40/41 Barronstrand Street, Waterford	The proposed refurbishment and part change of use to the Mulligan's Pharmacy including: ground floor - part change of use from retail to retail and cafe kiosk; first floor - change of use from office to retail services and café; second floor - change of use from office to consultation and beauty rooms.	Granted	2020-11-17	Not commenced
20301	The Forum (Licensed Premises), The Glen, Waterford	Change of use to provide restaurant, hair and beauty and amusement/gaming uses at ground floor and offices and studios (film & audio) at first floor level.	Granted	2020-11-19	Complete
20860	48 John Street, Waterford	Change of use from office/commercial to hot food takeaway.	Granted	2021-01-21	Complete
19910	Otteran Place, South Parade, Waterford	The construction of a single storey café and first floor terrace with first floor enclosed storage area.	Granted	2021-01-28	Not commenced
20741	T and M Reid Ltd, 40-42 Arundel Square, Waterford	Subdivision of retail unit to provide 2 no. units (A – 95sq.m. & B – 45sq.m.) and change of use of unit A to Café Use.	Granted	2021-02-04	Commenced
201011	The Kiosk, John Roberts Square, Waterford	Alterations and upgrade of existing single storey coffee kiosk.	Granted	2021-02-23	Not commenced
20853	41-41 Barrack Street, Waterford	Change of use from public house to retail (off licence) store at ground level and 2 x 1 bedroom apartments at first floor level.	Granted	2021-03-25	Commenced - Change of use from public house to retail (off licence) store at ground level and 2 x 1 bedroom apartments at first floor level.
20950	3 Bridge Street, Waterford	Change of use of part of the ground floor of the existing building from Retail to Café and Takeaway.	Granted	2021-09-21	Not commenced

Ref no.	Address	Development Summary	Decision	Date	Status
21825	1 George's Street, Waterford	For change of use from hair salon to auctioneers' office.	Granted	2021-10-21	Complete
22296	1-2 Johnstown, Waterford	Change of use from vacant public house (Wander Inn) to retail and beaty treatment at first floor and 2 no. two bed apartments at second floor level.	Granted	2022-07-21	Complete
22639	3 Conduit Lane and, 87/88 Meagher's Quay	Alterations to layout at first floor and change of use from store to office.	Granted	2022-10-27	Complete
2360358	Anchor Unit 2 (former Debenhams), City Square Shopping Centre, Arundel Square	Internal subdivision of the ground floor only of Anchor Unit 2 to provide 2no. anchor units 2a (1,466sq.m.) including off-licence area and 2b (589sq.m)	Granted	2023-10-02	Not commenced
2360475	12 Barronstrand Street (former Clarks), Waterford, X91 WF21	Subdivision of existing retail unit (previously Clarks) into 2no. units and change of use of 1no. unit from retail to restaurant/takeaway at ground level.	Further info requested	2023-11-30	Proposed Development
2360624	Broad Street Centre, Broad Street, Waterford	Alterations to Broad Street Centre building to provide 396 sqm additional office space, 4no. additional apartments and new communal amenity space at third floor level.	Submitted	2023-12-20	Proposed Development
1322269	70 & 71 O' Connell Street, Waterford.	S179a application. Development of 1no. retail/commercial unit at ground level and 5 no. residential apartments above.	Consultation closes	2024-02-13	Proposed Development
1298150	Munster Express building, 37 Merchant's Quay, Waterford	Part 8 application. Refurbishment of 37 Merchant's Quay, and construction of connecting three-storey building to provide a technological urban lab (SmartSE) comprising exhibition, workshop and office spaces.	Approved September 2023	00/09/2023	Not commenced

Ref no.	Address	Development Summary	Decision	Date	Status
Part 8 Development	123A, 123B, 124-130 Parade Quay, Waterford	Refurbishment of existing terrace at 124-130 Parade Quay to provide 6 ground-floor commercial-units and 13 apartments above ground and demolition of extensions to rear extensions to create a 350sqm new public plaza 'Friary Square'.	Consultation closes	05/02/2024	Proposed Development

Appendix 5
Placemaking Strategy

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 – 2028

Appendix 5

Placemaking Strategy

1.0 Introduction

The following appendix sets out key parameters in relation to design, block size, block form, street frontage and design, topography and urban grain. It is the interrelationship between all these elements that creates an attractive place to live, work and visit, rather than their individual characteristics. Together they create the built environment and contribute to its character and sense of place. It is hoped that the following guidance which is relevant to city and town centres, suburbs, neighbourhoods and villages, will assist developers, architects and planners in creating an integrated urban fabric comprising of well-designed character areas, and linkages between new and existing places.

Well-designed places have compact forms of development that are walkable, and contribute positively to well-being and placemaking. New development should have recognisable streets and other spaces with their edges defined by buildings, making it easy for anyone to find their way around, and promoting safety and accessibility. New development should strive to be memorable features or groupings of buildings, spaces, uses or activities that create a sense of place, promoting inclusion and cohesion

The appendix also outlines guidelines to consolidate urban centres and support the achievement of sustainable towns and villages, and should be read in conjunction with relevant guidelines in this area to include but is not limited to:

- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns and Villages), DEHLG, (2009).
- Urban Design Manual: A Best Practice Guide, DEHLG, (2009).
- Government Policy on Architecture 2009-2012, DEHLG (2009).
- Design Manual for Urban Roads and Streets, DTTS and DECLG (2013).
- Sustainable Urban Housing: Design Standards for New Apartments, DECLG (2015.)

2.0 Design Statement

To ensure a quality and coherent approach in design, all medium to large scale development proposals (i.e. Landmark Buildings, city centre developments, 10 dwellings or more in the case of residential development, or proposed development of over 1,000 sqm in the case of employment or retail/ non-retail services development) should be accompanied by a Design Statement that:

- Includes an integrated 'movement'/ mobility plan that demonstrates existing, and proposed integration with the development of surrounding sites and character areas including vehicular, walking, cycle and public transport connections –
- Demonstrates compliance with the 12 design criteria contained within the DoEHLG Urban Design Manual A Best Practice Guide (2009), in the case of residential development; and demonstrates a mix of dwelling types to support a variety of household sizes and tenure types;
- Include street cross sections and plans that demonstrate compliance with DMURS (2013) in terms of 'Movement, Place and Speed', 'Streetscape', 'Walking and Cyclist Environment' and 'Carriageway Conditions' etc.;
- Includes a Quality Audit addressing street design as outlined under DMURS (2013); and
- For commercial developments (retail), compliance with the 10 design criteria contained within the DoEHLG Retail Design Manual (2012);
- Includes cross sections that demonstrates appropriate design responses to existing and proposed site levels, including those that relate to streets, spaces, building frontages, services, nature based engineering solution and SUDS.

3.0 Landmark Buildings

Landmark Buildings can emphasise the urban identity of a place. Their purpose is to provide a signal of a significant place either in terms of movement or use. These buildings have the potential to act as important landmarks and should therefore address the significance of the site

Suitable locations for these buildings include:

- Important street corners;
- Junctions;
- Corner sites,
- The end of vistas and gateways,
- Local centres; and
- The edges of public squares.

They ensure visual interest and develop a stimulating streetscape and should only occur at these locations. In the development of Landmark Building their design as opposed to building height should be a key determinant. Their design should be unique and distinctive from surrounding buildings in architectural treatment and use of materials. To further distinguish their place-making function, Landmark Buildings should include high quality public realm treatment in terms of surrounding street planting, furniture, lighting and materials etc. The design of such buildings should be based on a coherent design concept that is clearly communicated via a Design Statement and Landscape Plan.

In addition to the above and Design Statements for Landmark Buildings should analyse and illustrate the impact of the proposed development in relation to its immediate and wider context including views/vistas within and beyond the development site and in terms of sunlight and daylight effects.

4.0 Corner buildings

Corner buildings offer another opportunity to define and enclose space. Such sites are visually prominent as they have two frontages facing the public street. These buildings shall be designed with windows and, where appropriate, entrance ways onto both streets. Corner buildings can also provide special opportunities for mixing uses. Figure 1 below illustrates various possible corner treatments e.g. an increase or stepping up in building height, a round corner, a stepped back corner (for example, to create a civic space), or a simple splayed corner. Such buildings shall be designed to an exceptional standard on all elevations

It is important to note that houses on corners need to face two ways; many standard building types used by housing developers are rarely able to do this. It is therefore necessary that more tailored designs be considered for these sites. Corners are best emphasised by incorporating prominent entrances and/or windows at the apex, expressing the height by, for instance, using a 'mansion block' of apartments, or incorporating a special use into the mix (Urban Design Compendium, 2000[1]).

[1] References: Llewelyn-Davies (2000) Urban Design Compendium, English Partnerships The Housing Corporation

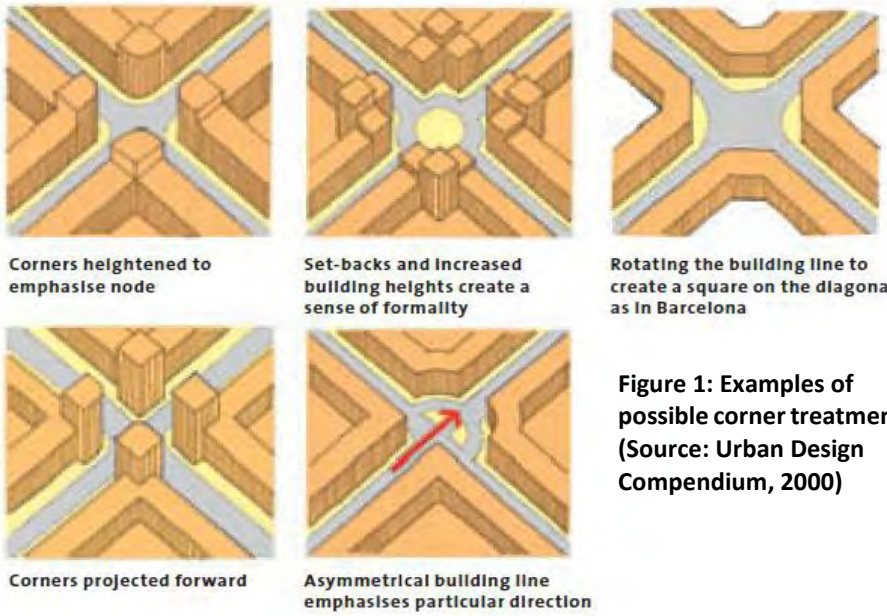


Figure 1: Examples of possible corner treatment (Source: Urban Design Compendium, 2000)

5.0 Building Line and Roof Line

Building lines are is the line created by the building frontage along the street edge. This is important as the position of the building line determines the width of the street, therefore influencing the sense of enclosure created. Established building lines should be maintained. Building lines may be relaxed to accentuate an important building or place or where important areas of public or civic space are required or where innovative design solutions can demonstrate that the design will positively enhance the streetscape.

The scale of buildings and their rooflines have a direct influence on the skyline. Rooftops of traditional buildings are generally constructed of slate and contain features such as chimneys which add visual interest and variety to the skyline. In many contemporary buildings, roofs tend to be flat; where this type of roof occurs on a building with a long façade it can result in monotony. In such cases the monotony can be relieved by variations in building height at appropriate locations (i.e. stepping up heights at the corners or at the centre of a symmetrical building). Regard should be had to the following:

- Rooflines should respond to the articulation of the rest of the façade so that the building can be read from the bottom to the top.
- The roofline should acknowledge the rhythm, harmony and scale of the entire street frontage. − Materials should be chosen for their compatibility with the existing rooftops of towns in the county, e.g. dark grey slate.
- Machine and mechanical plant rooms should be designed as an integral part of the building and should not appear as a disruption of the roof line

6.0 Block Form and Size

Residential layouts should generally utilise the perimeter block principle, as a departure from more recent cul-de-sac type layouts. This will increase pedestrian permeability and legibility of a new development area and will help to define streets and public spaces. Blocks can vary considerably in shape and size according to the configuration of streets, orientation and topography and the nature of plot sub-division and building types that are to be accommodated.

6.1 Block Form

The fundamental requirement in structuring built form within the development blocks is to make a clear distinction between public fronts and private backs. Buildings which front street and public spaces present their 'public face' and create active street frontages. Well designed blocks can enclose private and semi-private open spaces. All blocks should be designed according to the following principles:

- Where possible building massing to the perimeter of the block;
- Building frontage to all sides, including the shorter sides (secondary street frontage) of the block;
- Proper design and attention to corners, avoiding dead or windowless gables;
- A continuity of building frontage, which relates to the local or urban context, and avoidance of blank walls;
- Block layout places some public spaces in front of building lines as squares or greens, and some semi private spaces to the back as communal courts;
- An appropriate scale of buildings to provide the appropriate level of enclosure of the streets and spaces;
- Adequate back-to-back distances within the block;
- Appropriate building set-backs from the street in line with the use of ground floors;
- Adequate arrangements for car parking and access around, within or below the block; and
- Carefully considered subdivision of the block into plots where fine urban grain or mixed use is proposed.

6.2 Block Size

To encourage pedestrian and cyclist permeability and ensure that streets and blocks are dimensioned to reflect their function and setting, reduced block lengths should be utilised. Block sizes on should have dimensions of approximately 60 to 80 metres and should be no more than 100 metres in length/depth as illustrated in Figure 2. Some sites could facilitate larger block dimensions however these should be no more than 100 metres. Larger or irregular blocks of up to 120 metres should be broken up using mid-block penetration. Section 3.3.2 of DMURS (2013) should be consulted in the design of block size.

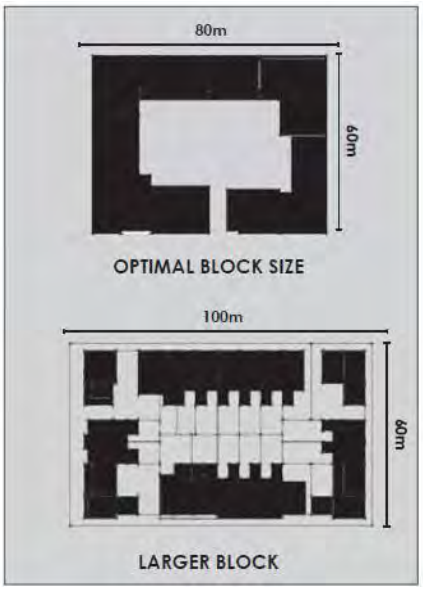


Figure 2: Optimal and Larger Block Sizes which will promote a 'walkable' neighbourhood (Source: DMURS, 2013)

7.0 Urban Grain and Facade Treatment

It is widely accepted that the creation of satisfactory street space requires the enclosure of space, either through buildings, street furniture or planting of trees. These spaces are safe, visually pleasing and create a sense of place.

Connecting buildings to one another creates active street frontages, assists in providing a sense of 'enclosure' minimises heat loss through external walls and allows more economic construction. This should not result in the mono design of terrace buildings, but reflect the fabric of historic town/ village centres which are largely made up of individual buildings which are joined to one another. The architectural diversity, vibrant mix of finishes and building types, will aid in place making, way finding, and add to the legibility of the overall development.

The subdivision of large undeveloped lands within our urban areas, such as Kilbarry and Carrickphierish in Waterford City or Monang in Dungarvan, gives an opportunity for developers to subdivide these into development parcels with distinct character areas. This will enable the areas to develop a richer mix of building types, tenures and uses. The Urban Design Compendium (2010) suggests that parcels of 1 to 2 hectares will avoid a 'monoculture' in any area. Block form and design is explained in more detail in the section below.

8.0 Dwelling Type

All new residential development should be inclusive with regards to the provision for housing of different types, including first time buyers, single people, families, empty nesters and the elderly, in order to ensure a social mix and balance is achieved. Providing this choice will enable people from different backgrounds to benefit from the opportunity afforded by the development, and will help to create a balanced, sustainable community.

On larger developments, the overall mix should be selected to create a mixed neighbourhood that can support a variety of people through all stages of their lives as depicted in Figure 3.

Figure 3: Illustrates a residential scheme with a mix of housing sizes and forms which covers a range of demographics (Source: Urban Design Manual, 2009)

9.0 Suburban District and Neighbourhood Centres

Suburban District and neighbourhood centres, where appropriate, should typically include services and facilities such as shops, pub, post office, crèche, doctor's surgery, health centre, community centre, civic space, park, playground, primary school, as well as some local services and/or employment uses, and should comply as appropriate with the relevant retail provisions of Chapters 3 and 4. Suburban District / Neighbourhood centres should generally be located within 10 minutes walking distance (800m – 1Km) of significant residential development schemes.

10.0 Car Parking

Parking standards are set out in Volume 2 Development Management Standards of the draft Development Plan. Regard shall be had to the following in relation to the location and layout of car parking areas:

- Car parking should be sited within established site boundaries to ensure minimal impact to the amenity of adjoining premises.
- In town centres, suburban district and neighbourhood centres parking spaces should be located behind buildings or underground wherever possible, to encourage the continuity of streetscapes.
- Landscaping, tree planting and nature based solution to surface water management must be provided to counteract the appearance of parking areas.
- Where on-street parking is proposed properly marked car parking spaces shall be provided with regular tree planting and a high standard of kerbing and paving. Generally not more than five perpendicular or two parallel car parking spaces shall be provided between trees.
- Where surface car parking is required it should be designed to be overlooked and therefore comply with the principles of passive surveillance, and should not dominate the street frontage.
- Cycle parking facilities must be conveniently located, secure, easy to use, adequately lit and well posted. Weather protected facilities should be considered where appropriate. In addition, parking should be placed within a populated, well-supervised area, and monitored by CCTV where possible.

11.0 Building Language and Finishes

Good modern architecture and design should prevail throughout developments. There should be consistency in materials, colour, proportions, roof pitches, building detail, street/route surfaces, planting and street furniture within a development. Certain principles will apply in relation to materials and finishes for a development, as follows:

- Finishes and materials should be of a high quality.
- Where possible natural materials should be used including wood, stone, slate etc. The use of native Irish material should be maximised.
- Materials and finishes should, as far as possible, reflect an Irish vernacular and, where appropriate and feasible, a Waterford vernacular.
- In the interests of sustainable development environmentally friendly materials should be used.
- All walking and cycling routes should be overlooked where feasible by adjoining uses to ensure passive surveillance.

12.0 Layout and Design Considerations

Design considerations should include:

- Recognisable routes, intersections and key buildings should be provided to help people find their way around.

- Priority should be given to pedestrians and cyclists by providing routes that are direct, safe and secure.
- Streets should be designed and well lit to give control to pedestrians and therefore encourage pedestrian activity.
- Attractive and successful outdoor areas should provide a quality public realm which is essential to providing each area with its own individual identity.
- Passive supervision of the public realm, which is the most effective means of preventing anti-social behaviour.
- Buildings should be orientated to maximise privacy, where appropriate, and elements such as planting and boundary treatment used to maximum effect.
- Residential layouts should, where appropriate, utilise the perimeter block principle as a departure from cul-de-sac type layouts.
- All housing should at a minimum be dual aspect and designed so that greatest advantage is taken of southwest orientation.

13.0 Street Layout

The street network within any new development forms the basis for movement. All development should include a hierarchy of streets (Arterial, Link, Local Streets) designed to recognise the needs of pedestrians and cyclists and therefore encourage healthy activity. This can be achieved by paying close attention to the design of street surfaces and planting, which should be integrated with passive traffic calming measures such as changes in road colour, planting, narrowing of streets or other forms of traffic calming, further guidance can be found in DMURs (2013), the National Cycle Manual (2011), the Guidelines for Setting and Managing Speed Limits in Ireland (2015). These include:

13.1 Arterial Streets

According to DMURS (2013) the main purpose of Arterial Streets is to connect major centres at a strategic level and largely comprise major orbital. These streets should be provided in the form of spacious, tree-lined streets to provide a safe environment for pedestrians and cyclists with associated cycle lanes, footpaths and verges. These streets should fronted by buildings and comprise a high quality public realm, planted with appropriate native species.

13.2 Link Streets

Link Streets form a vital linking component between Arterial Streets and Local Streets and are instrumental in creating a highly accessible and permeable street network. Link Streets will act as the principle corridors for the movement of pedestrians, cyclists, public transport and vehicles within new developments. Traffic speeds must be reduced along Link Streets in order to promote walking and cycling. The design of link streets will vary according to the density of the area it is in, and this largely affects the distribution of parking and kerb alignment.

13.3 Local Streets and Intimate Local Streets

Local Streets provide access within communities and to Arterial and Link Streets. Local Streets act as quieter traffic calmed thoroughfares that are closely fronted and overlooked by development and provide through access to neighbourhood blocks and local open spaces. They tend to carry less vehicular traffic and place a greater emphasis of pedestrian and cycling movement. Local Street can also act as 'homezones' which are more Intimate Local Streets. These streets will be a fully shared surface for the integrated movement of vehicles. These streets should be designed as shared level surfaces, where pedestrians and cyclists have equal priority with vehicles, therefore having the advantage of providing sufficient space for large vehicles to approach close to buildings without giving the impression of a 'tarmac prairie'. These streets must have building frontages on both sides.

14.0 Permeability, Accessibility & Legibility

New developments must be supported by a permeable, accessible and legible street network that offers a choice and flexibility for managing movement.

Permeability

Good connections for walking and cycling between existing and new area/developments are central to the vitality of any urban centre and should follow the Permeability Best Practice Guide published by the National Transport Authority.

Permeable layout offers the pedestrian a selection of routes providing greater visual interest. The higher level of pedestrian activity generated provides greater security. If there are more pedestrians around in the street there is a greater chance of casual social encounters and less anti-social behaviour and criminal activities. In order to allow free movement the ideal pattern would be a deformed grid based on the use of small residential blocks (Making Places: A Design Guide for Residential Estate Development, 2011).

A fine grained network is critical to the creation of an attractive and accessible pedestrian environment. All new development should provide a fully permeable and recognisable interconnecting network of streets and places. Where it is not practicable to provide vehicular links between old and new residential areas, pedestrian and walking and cycle links should be achieved. Opportunities to organize permeable layouts in a way which extend or link into established walking/cycle routes should also be developed. Permeability within town and village centres must be protected and where possible improved. Any new development should open up new routes as part of the development. Permeability through existing housing estates shall be subject to local public consultation.

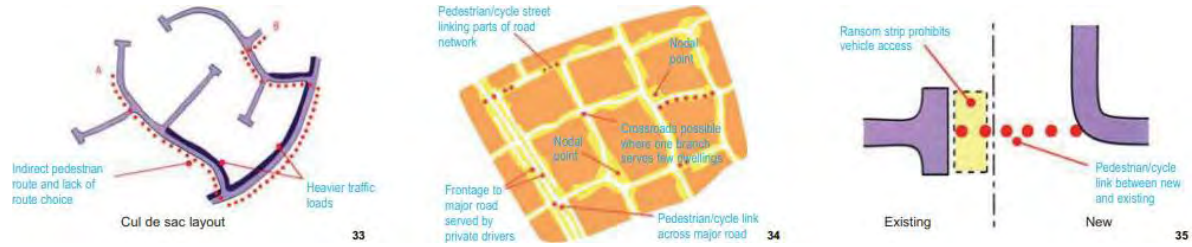


Figure 4: Depicts residential development which have a permeable and non-permeable layout (Source: Making Places: A Design Guide for Residential Estate Development, 2011)

Accessible Streets

All new streets within developments must be designed so that they are walkable. Blocks must be permeable as to encourage more sustainable active modes of transport by providing direct walking and cycling links to adjacent residential and open space areas, public transport and local shops/services which will reduce the dependency on the private car.

The design of streets/roads has a major impact on the level of permeability and safety within new developments. Streets and roads which are characterised by narrow carriageways, active facades, several points of access and frequent crossings will encourage walking and cycling as shown in Figure 5. These types of environments will produce a much safer environment for pedestrians and cyclists as they slow the flow of vehicles, create passive surveillance and provide exist points.

Figure 5: The elimination of access and frontage along roads was introduced to reduce risk, but it serves to encourage speeding (DMURS, 2013)

Legible Street

Residential development in recent years has been characterised by a sense of sameness, with entire housing estates designed with a uniform house type and layout. This generic design motif in conjunction with street layouts with proliferation of cul-de-sacs surrounded by faster distributor/link roads with limited pedestrian/vehicular access makes for a poor and extremely difficult environment to navigate for the end user.

The layout of new residential development should be designed around a set hierarchy of streets as set out above and building types that work in unison to promote a highly legible environment.

The height and scale of buildings must relate explicitly to street types, with larger scale buildings on major arterial streets and lower scale buildings on minor link or local streets. Important corners and areas around public open space lend themselves to taller buildings and also provides for the placement of landmark buildings at key strategic locations (please see Landmark buildings above).

15.0 Nature Based Solutions to Hard Infrastructure and Sustainable Urban Drainage Systems (SuDS)

Protecting and enhancing open spaces for both biodiversity and recreational use has benefits for the sustainability and attractiveness as a place to live, work and visit. Natural assets, open spaces and recreational areas may come under increased pressure as our city, towns and villages grow. We need to ensure the balance between the need grow with the need to protect and enhance vulnerable natural areas.

Nature-based solutions are defined by the International Union for Conservation of Nature as "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits"[2]

Nature-based solutions are critical in climate change adaptation; they can play an important role not only for biodiversity and ecosystems, flood prevention and carbon sequestration, but also in temperature regulation, water quality, erosion prevention, filtering pollutants and. Nature-based solutions are used in a smart, 'engineered' way to provide sustainable, cost-effective, and adaptable measures that support climate resilience.

[2] International Union for Conservation of Nature. [Internet]. Available from https://www.iucn.org/

All new development should incorporate elements of nature based solutions to hard infrastructure as part of their Sustainable Urban Drainage System (SuDS) in order to reduce storm water runoff and improve biodiversity. Examples of nature-based solutions include green roofs and tree pits as part of SuDS, constructed wetlands to improve water quality and prevent flash flooding, increased biodiversity, and more tree canopy cover to regulate urban heat, improve air quality and provide shade and corridors for movement of wildlife within urban areas.

Permeable surfaces (gravel, turf and structurally reinforced turf, 'grass-crete', trees and shrubbed areas, green roofs, rain gardens and bio swales etc.) should be used to aid water runoff wherever possible.

Porous pavements give trees the rooting space they need to grow to full size, and in the void spaces within these surfaces naturally occurring micro-organisms digest car oils and the oil ceases to exist as a pollutant. Rainwater infiltration through the pavement into underlying soil reduces stormwater volumes.

Appendix 6

City South West (Kilbarry Ballybeg and Lacken) Design Framework

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 - 2028

Appendix 6

DESIGN FRAMEWORK

CITY SOUTH WEST NEIGHBOUTHOOD: KILBARRY AND BALLYBEG

WATERFORD CITY AND COUNTY COUNCIL

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

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1.0 INTRODUCTION AND VISION

The City South West (Kilbarry/Ballybeg) Urban Design Framework is intended to inform the future statutory planning for the area. As such, it is a plan and policy led approach which will repurpose the neighbourhood and influence change in the quality of future development and the design of urban spaces in the area. The document considers the existing pattern of development in the study area and its wider context, and aims to formalise a shared approach to the future development of public spaces, mixed use areas, a neighbourhood centre, and pedestrian connectivity, providing the foundation for future growth of the neighbourhood and its communities. Key interventions for achieving this are identified in the vision, the objectives and the guidance set out hereafter.

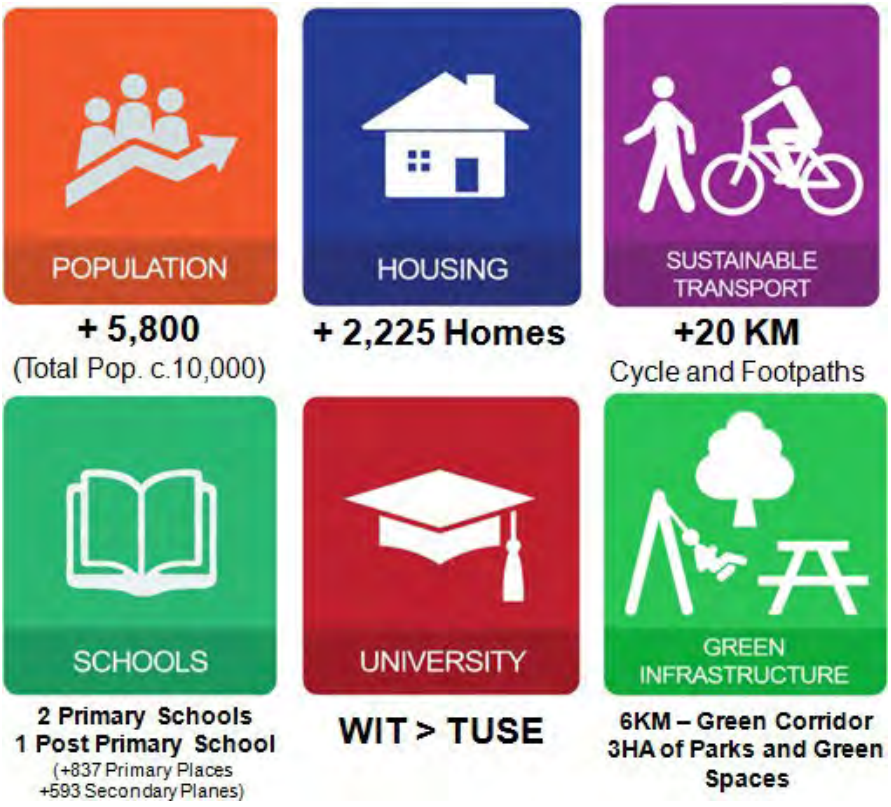
Sections 2 to 5 of the document set out the vision and the background underpinning the framework for the area. Thereafter, Section 6 illustrates the distinct character areas within Kilbarry and Ballybeg, Section 7 describes the transportation strategy seeking a move toward sustainable transportation and creating more permeability within new and existing neighbourhoods, whilst Section 8 sets out the green infrastructure and open space strategy. Section 9 illustrates in more detail how five key character areas will be developed in terms of land use and specific objectives relating to public spaces, community and commercial development, and building typology.

2.0 STRATEGIC VISION FOR KILBARRY/ BALLYBEG

The document builds on the current policies, objectives and land use zoning set out in the Waterford City Development Plan 2013 – 2019, and proposes a number of select changes which will future-proof the area so as to ensure the following vision can be realised:

'Kilbarry/ Ballybeg will become a vibrant and sustainable neighbourhood which will support and encourage economic, social and cultural development and community interaction in an area which is attractive to residents and which attains a high level of environmental quality to ensure an excellent standard of living for all.'

The Kilbarry and Ballybeg Urban Design Framework is expected to deliver:



3.0 PRINCIPAL OBJECTIVES

- To ensure the development and enhancement of key nodes, landmarks and landmark buildings across the study area in a manner that creates a sustainable unban district;
- To develop a neighbourhood which is safe and sustainably connected;
- Avail of the unique opportunity to enhance and develop the profile of TUSE;
- To develop a vibrant and attractive mixed use neighbourhood centre focused around the Ballybeg Link Road;
- To ensure development is carried out in a design-led manner which prioritises place, permeability, liveability and mixed-uses;
- To enhance access to Waterford Nature Park and Kilbarry pNHA and develop resilient biodiversity and amenity assets/networks within the area;
- Provide a Design Brief and associated principles to guide the design and layout of new development within the Kilbarry/Ballybeg area. All new developments will be required to be consistent with the design brief and principles set out in Appendix Two.

4.0 DESCRIPTION AND ANALYSIS OF KILBARRY AND BALLYBEG

The study area, consisting of c. 479 hectares, is located within the Kilbarry/ Ballybeg neighbourhood, c. 3 kilometres south-west of Waterford city centre. The area is bound to the north by the Cork Road (R680), to the west and south by the Cumann na mBan Outer Ring Road (R710) and to the east by the Tramore Road (R675) as shown in Figure 1.

Figure1: Aerial view showing the study area in red in context of Waterford city centre (Source: WatMaps)

Figure2: Map depicting the study area in context with surrounding areas (Source: WatMaps)

4.1 S.W.O.T ANALYSIS

A SWOT analysis of the area was conducted by UCD Eco-Health Project (2008) which helped inform this analysis. The results are summarised in Figure 3.

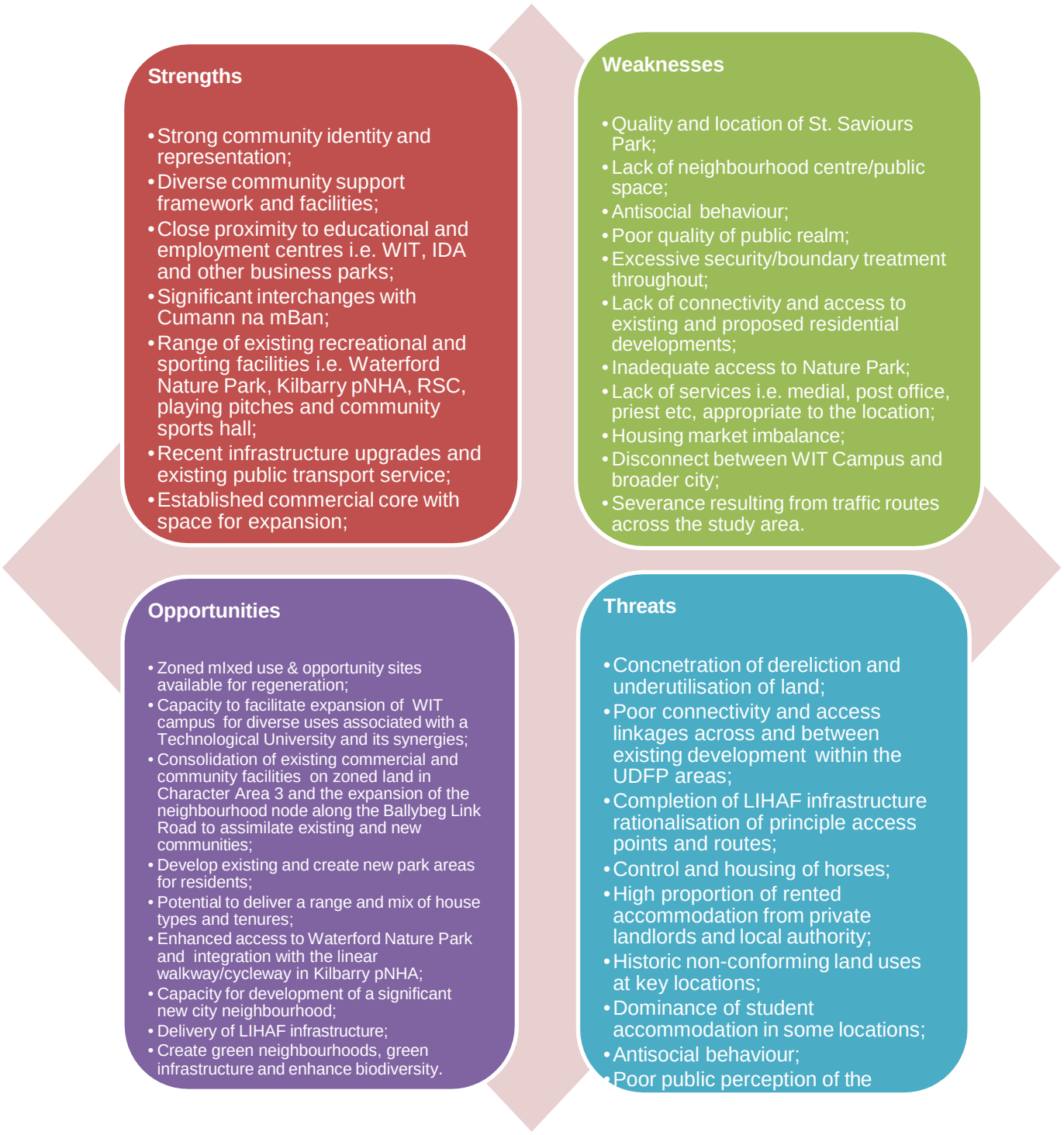


Figure 3 - SWOT analysis for the study area (informed by the UCD Eco-Health Project of Kilbarry and Ballybeg conducted 2018)[1]

1 UCD Eco-Health Project (2018). Ecosystem services and health at the local scale: Preliminary findings. EPA/HSE Grant award No. 2015-HW-MS-6. University College Dublin (UCD). This research was undertaken as part of the Eco-Health project, funded by the Environmental Protection Agency (EPA) and the Health Service Executive (HSE) under Grant Award No. 2015-HW-MS-6, and supports the implementation of the EPA Strategic Plan 2016–2020 – 'Our Environment, Our Wellbeing' and Healthy Ireland, the national framework for action to improve the health and wellbeing of the people of Ireland.

5.0 POLICY FRAMEWORK

This section of the Urban Design Framework Plan sets out the key National, Regional and Local planning policy as it relates to the study area.

5.1 National Planning Framework 2040

The National Planning Framework 2040 (NPF) aims to deliver at least half (50%) of all new homes that are targeted in the five Cities and suburbs of Dublin, Cork, Limerick, Galway and Waterford, within their existing built-up footprints.

Section 2.6 of the NPF seeks to provide compact and sustainable growth which has the potential to make a transformational difference. To this end **National Policy Objective 4 states: "***Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being".*

The NPF seeks to make better use of under-utilised land, including 'infill' and 'brownfield' with higher housing and jobs densities, better serviced by existing facilities and public transport. Given the proximity of the study area to the city and the extent of underutilised land therein, the design framework seeks to deliver the objectives of the NPF.

5.2 Southern Regional Spatial and Economic Strategy 2020 (SRSES)

Waterford Metropolitan Area Strategic Plan (MASP)

Kilbarry and Ballybeg neighbourhood fall within the Waterford MASP area. Policy Objective 1 for the MASP area states that "*it is an objective to promote the Waterford Metropolitan Area as a cohesive metropolitan area with (i) the city centre as the primary location at the heart of the metropolitan area and region (ii) compact growth and regeneration of the Metropolitan Area across the city centre and suburbs, (iii) active land management initiatives to deliver housing and employment locations in a sustainable, infrastructure led manner".* The following are the guiding principles for the Waterford MASP:

- Achieving Critical Mass through a City focussed Strategy for growth in population and employment;
- Development of a Compact, Balanced City;
- Integration of Land-Use and Transportation supporting movement by sustainable transport means;

- Harnessing the excellence of Education Resources in WIT, and seeking the development of a University in Waterford;

Future growth enablers for the MASP area are also set out in the SRSES and listed below are the key growth enablers relevant to the Kilbarry/ Ballybeg neighbourhood:

- Identifying infill and regeneration opportunities to intensify housing and employment development throughout city centre and inner suburban areas;
- Progressing the sustainable development of new greenfield areas for housing and the development of supporting public transport and infrastructure [Local Infrastructure Housing Activation Fund (LIHAF) location];
- Public realm and urban amenity projects, focused on streets and public spaces, in the existing built footprint of the Metropolitan Area – North & South in support of urban intensification;
- Expansion of the WIT through development of a Multi-Campus Technological University for the South-East and integration with the Metropolitan Area and region;

5.3 Waterford City Development Plan 2013 -2019

The document builds on the current policies, objectives and land use zoning set out in the Waterford City Development Plan 2013 – 2019.

The Framework Plan is a non-statutory plan. That being said it should be noted that the proposals set out for the University District character area in Section 9.1 of this plan (Former Waterford Crystal and the Yellow House SITES), provide the design framework for the development of lands identified as mixed use/opportunity sites in the Waterford City Development Plan 2013 – 2019, and are therefore consistent with sections 2.2.4 and 12.2 of the development plan. In addition the guidance for new development set out in Appendix 1 is consistent with Ministerial Guidance, and is therefore applicable to all new developments.

5.3.1 Land Use Zoning

Figure 4 illustrates a zoning map extract of the Kilbarry/ Ballybeg study area. The area is zoned for a number of different land uses within the Waterford City Development Plan 2013 - 2019. Land-use zoning objectives for the study area are broken down by character area and discussed in more detail in the design framework below. For a schedule of appropriate uses please see Section 12.16 of the Waterford City Development Plan 2013 – 2019.

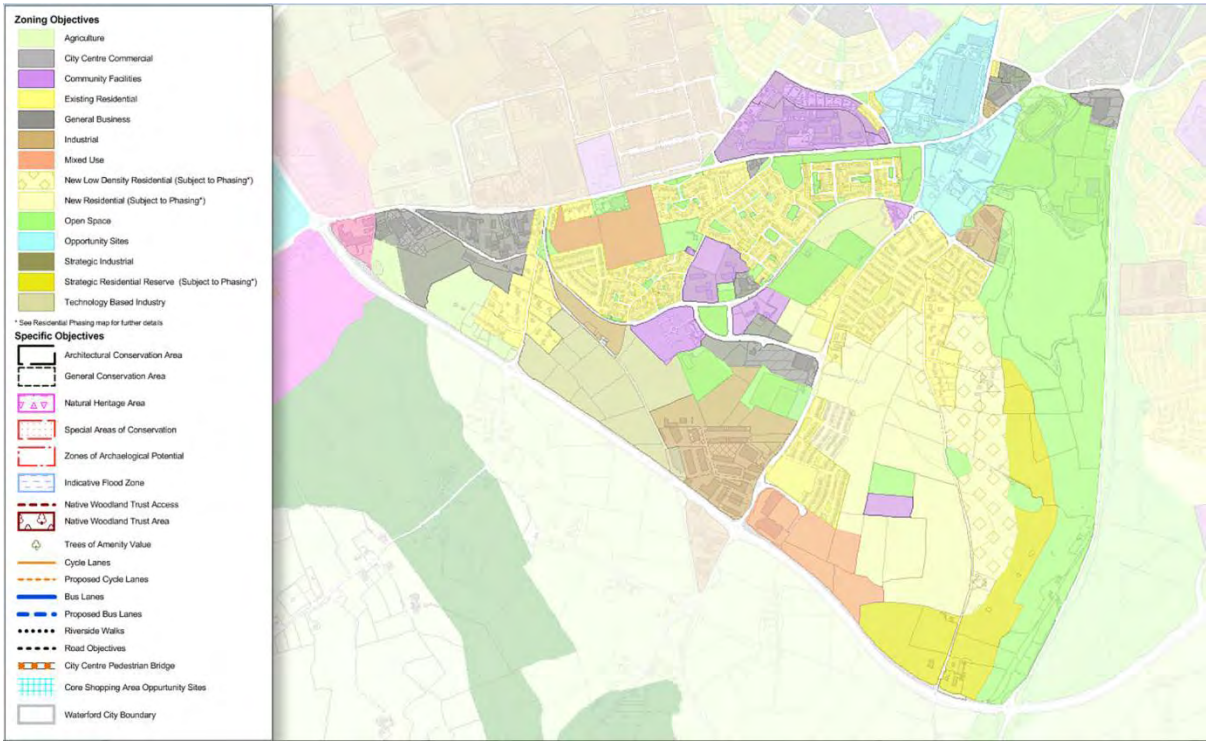


Figure 4: Zoning Map Extract from Waterford City Development Plan 2013 – 2019 (Source: WatMaps)

6.0 CHARACTER AREAS

While recognising the interrelationships between distinct areas, Kilbarry and Ballybeg can be divided into a series of smaller areas of distinct character, land use and physical definition.

There are five character areas which make up the Kilbarry/ Ballybeg Design Framework study area. These are listed below and displayed in Figure 5. These character areas are dealt with in separate sections in the design framework below.

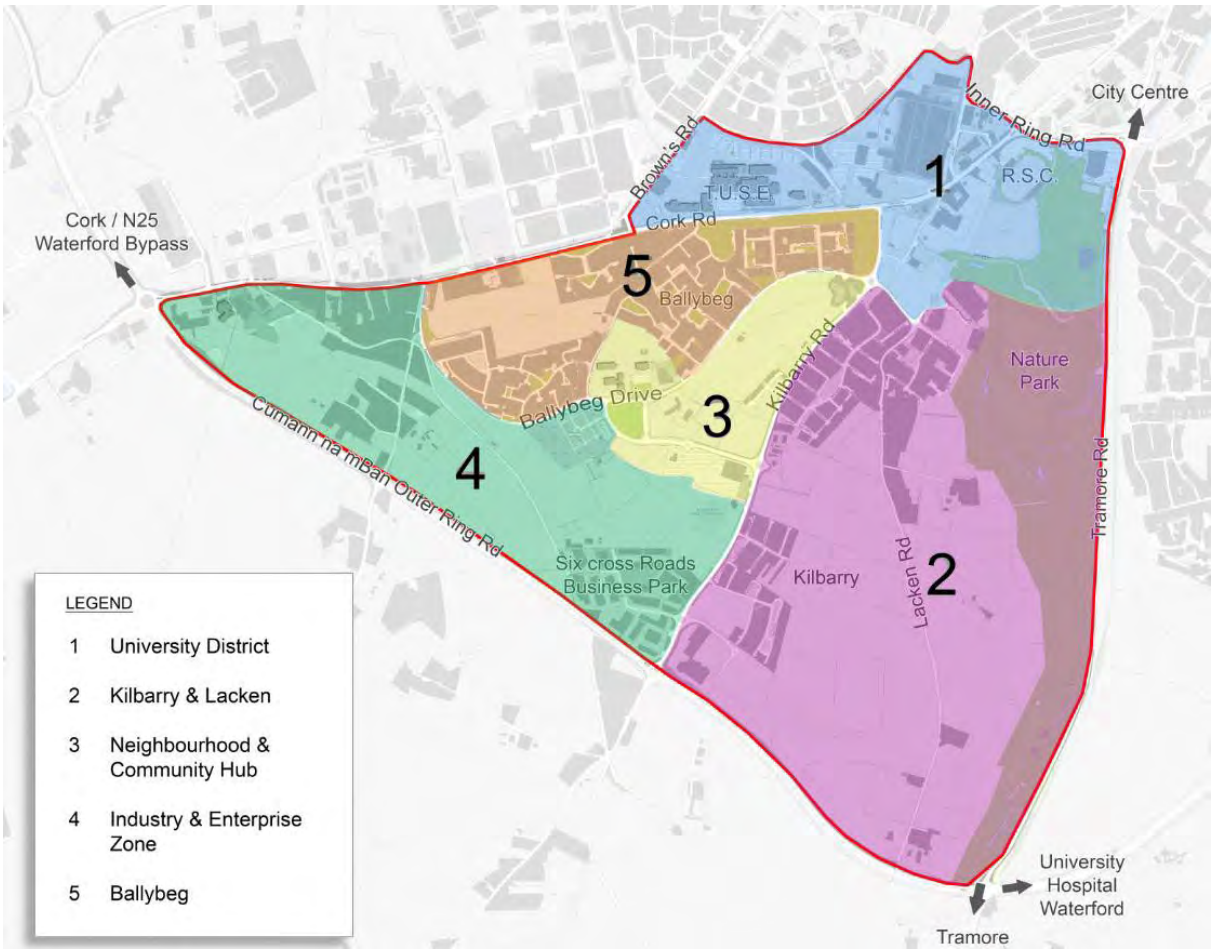


Figure 5: Map depicting the 5no. character areas in the study area

6.1 Education

The study area is currently served by local schools including St. Saviours Primary School (319 pupils), St. Pauls Boys Primary School (226 pupils), and St. Pauls Secondary School (476 pupils) (Department of Education & Skills, 2018[2]). The population growth envisaged in Section 2.0 above, taken in conjunction with the current requirements of the Department of Education & Skills for school places, indicates a need to reserve a 3.5 ha parcel of land for a primary school (based on 24 classrooms at Population Equivalent of 26 pupils per class) and a further 3.9 ha for a 837 pupil post primary school accommodating 593 pupils (based on 16 classrooms at a Population Equivalent of 28 pupils per class). Taking cognisance of the population increase envisaged an additional 506 childcare places providing full day care will also be required in accordance with the *Childcare Facilities: Guidelines for Planning Authorities (Dept of Environment and Local Government) 2001*.

2 Dept of Ed & Skills, 2018. "School Search", 19/12/2018, http://www.education.ie.en/find-a-school

7.0 TRANSPORTATION STRATEGY

7.1 UN Sustainable Transport for Development

In 2016 the UN published the world's first Global Sustainable Transport Outlook Report entitled *Mobilising Sustainable Transport for Development.* It addressed all modes of transport, in developing and developed countries, highlighting the fact that transport is not an end in itself, but rather a means of allowing people to access what they need: jobs, markets, social interaction, education, and a full range of other services and amenities which contribute to healthy and fulfilled lives. The report moves away from a focus on providing mobility based on individual motorised transport and improved traffic speed, to the idea of access through transport, prioritising people and their quality of life, with strong attention to safety and social equity.

Through sustainable transport, we can make significant progress on the Sustainable Development Goals and the Paris Climate Agreement, improving the lives of all people in the Kilbarry/ Ballybeg area as well as those located in the greater Waterford city area.

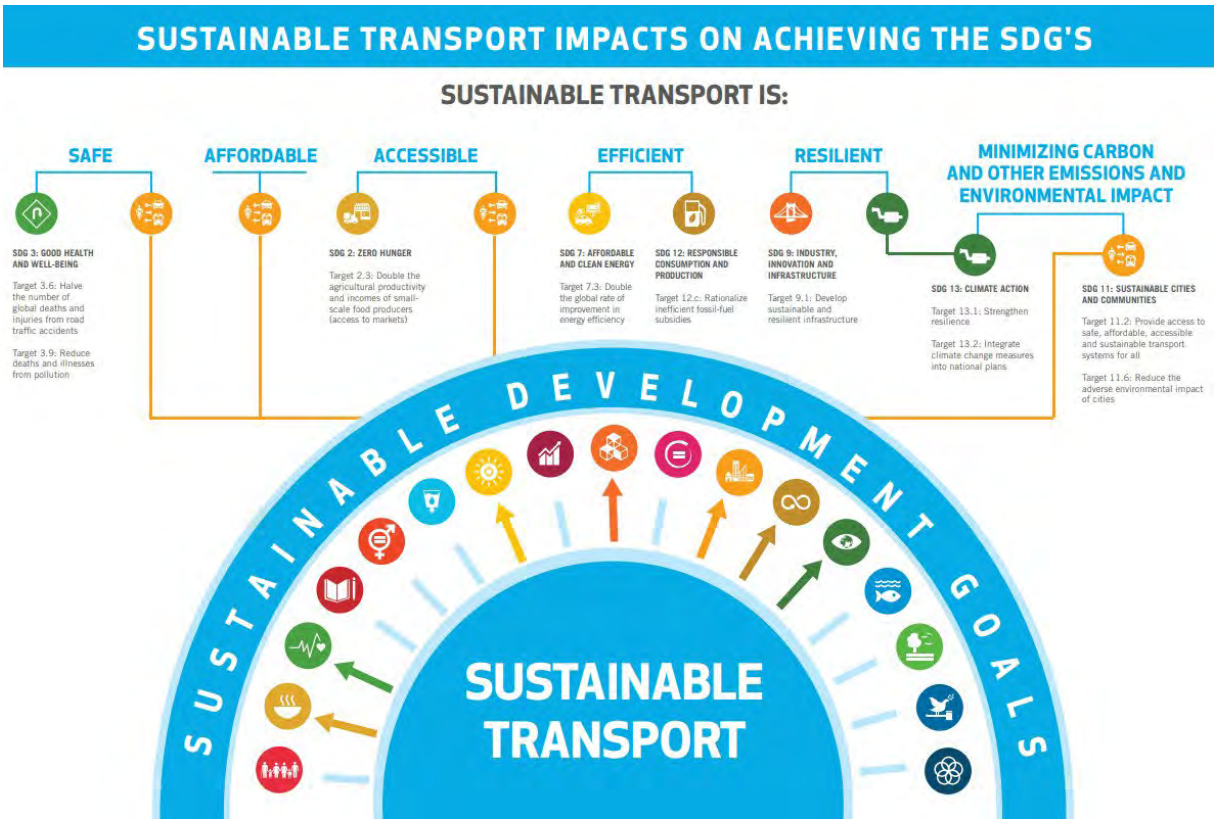


Figure 6: UN Sustainable Transport Goals

7.2 PLUTS 2004-2020

The Waterford Planning Land Use and Transportation Strategy (PLUTS) 2004-2020, provides a vision and strategy for the development of Waterford City and Environs to 2020. The strategy supports and fosters balanced spatial development and the achievement of critical mass to allow the city to reinforce and develop its role as the economic driver of the South-East region of Ireland

This Urban Design Framework Plan adheres to the strategies as set out in PLUTS, and aligns with the key principles which aim to provide guidance as to the general scale and location of growth so that the City and its environs can be developed in a balanced, sustainable, transport friendly and attractive way in order to provide a high quality of life and opportunities for all its citizens.

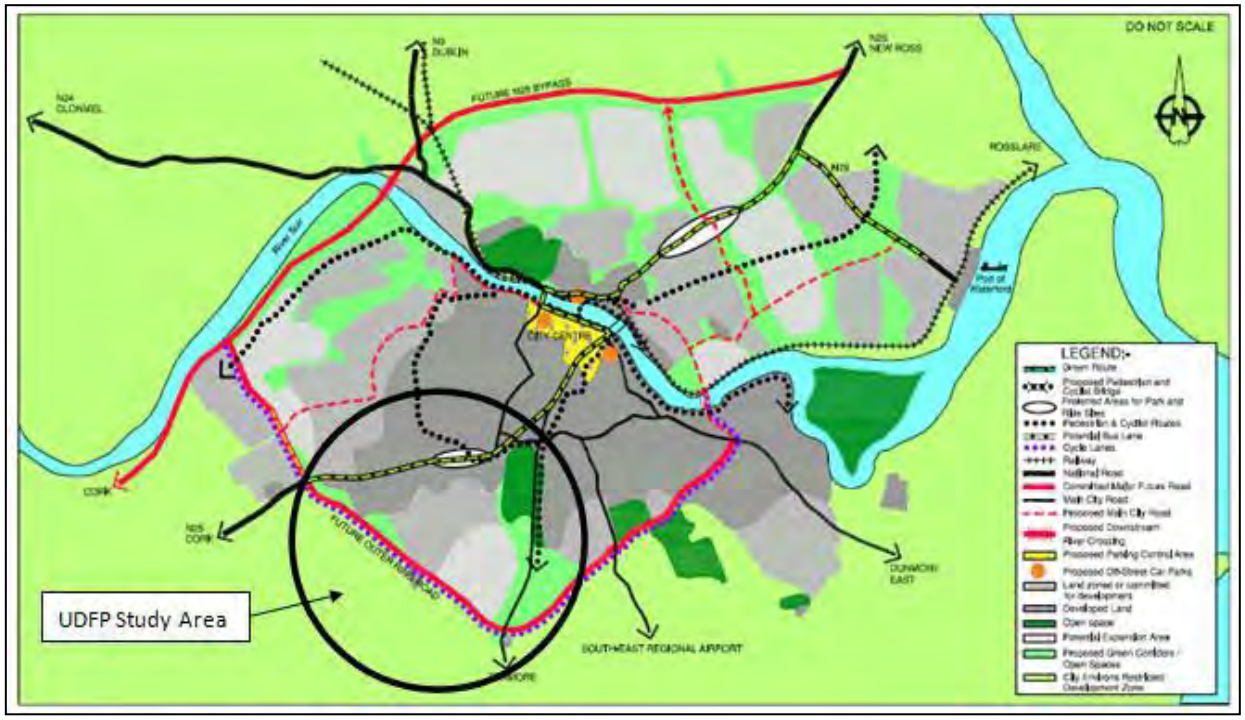


Figure 7: PLUTS 2004 – 2020 Transport Strategy depicting the Kilbarry and Ballybeg Study Area

The principal features of the PLUTS include

- Development of a high-quality bus-based public transport system in the City;
- Provision for non-motorised modes such as walking and cycling including an orbital route linking employment, residential and educational facilities; and
- Development of a cross-city public transport corridor called the Green Route, which will link Belview, the North Quays, the existing City Centre and the new Technical University of the South-East (currently WIT).

Key Transport Proposals

- Flagship Project – Green Route linking Belview to the North Quays and the City Centre with TUSE; Bus lanes and bus priority measures concentrated primarily on the N25;
- Further extension of existing bus services and the promotion of new orbital routes;
- Park and Ride at two locations on the N25 (one north and one south of the River Suir);
- Greater provision for sustainable travel modes (walking and cycling).

Main Strategy Themes

The Strategy is underpinned by a number of key development themes:

- Development of a Compact, Vibrant Sustainable City;
- Integration of Land Use and Transportation Planning;
- Provision of High Quality Transport Infrastructure;
- Expanding and Sustaining a Thriving Commercial.

7.3 Transport and Movement within the Study Area

The study area is ideally positioned to the south west of Waterford city centre to benefit from a wide range of transport opportunities provided by an existing network of regional and local roads, existing local bus routes and bicycle lanes, and the planned PLUTS Green Route along the Cork Road.

Some of the existing transport options in the study area create challenges in the form of barriers to movement and access in and across the area, in particular those created by the main arterial routes out of the city (Cork Road (R680) and Kilbarry Road (L5521)). For the Urban Design Framework Plan to be successful it is necessary that a clear hierarchy of streets and spaces are created which will assist in the creation of place making.

7.3.1 Local Transport Plan

The NPF and the SRSES provide a statutory basis for the need to ensure that transport planning is integrated at all levels in the making of plans and the application of their policies and objectives. The SRSES sets out proposals for the development of Local Transport Plans (LTP) which will represent the lowest tier of the NPF's framework for the integration of land use and transport planning and the achievement of the NPF's objective of 'compact smart growth'.

The Local Authority will prepare a LTP in conjunction with the National Transport Authority (NTA) for the Ballybeg and Kilbarry Neighbourhood based on the Area Based Transport Assessment (ABTA)

guidance produced by the NTA and Transport Infrastructure Ireland (TII). The LTP will provide a short to medium term transport planning framework for the integrated development of transport infrastructure and services in the Kilbarry and Ballybeg Area. The recommendations and objectives of the LTP will inform the implementation of transport and mobility interventions within the study area.

7.4 Sustainable Transport

The study area is currently served by 3 no. bus routes (W1 The Quay – Ballybeg; W2 The Quay WIT and 360/360a Bus Station – Tramore) as shown in Figure 8. Objectives relating to public transport are set out in section 7.4.3 below.

7.4.1 Pedestrian and Cycle Movement

All pedestrian and cycle routes will be designed to be safe and accessible in accordance with DMURS and the NTA's National Cycle Manual (2011). The Urban Design Framework Plan also seeks to ensure that all residential development will be afforded direct or indirect access to pedestrian and cyclist routes to schools and local facilities, especially parks, open spaces, public transport, retail and non-retail services.

Further to the requirements of Appendix 1 Section A2.1 (Design Statement) of this framework document, applications for development should demonstrate such connectivity via a Design Statement which shall underpin the proposal and which shall ensure that there are no barriers to pedestrian or cyclist movement between residential developments.

The PLUTS Green Route runs along the Cork Road to the Outer Ring Road, and links the study area with Waterford City Centre, Ferrybank and North Quay Strategic Development Zone in the form of a dedicated pedestrian and cycle route. This creates an opportunity for Arterial, Link and Local streets in the study area to link with this strategic corridor.

Cycling and walking will be encouraged throughout the study area with the creation of a network of dedicated and street integrated pedestrian and cyclist routes that will permeate open spaces, parks, urban spaces and linear green spaces. This will ultimately create a linked network that maximises route choice for pedestrians and cyclists. All pedestrian and cycling objectives are listed below and should be read in conjunction with the transport and movement map (Figure 11).

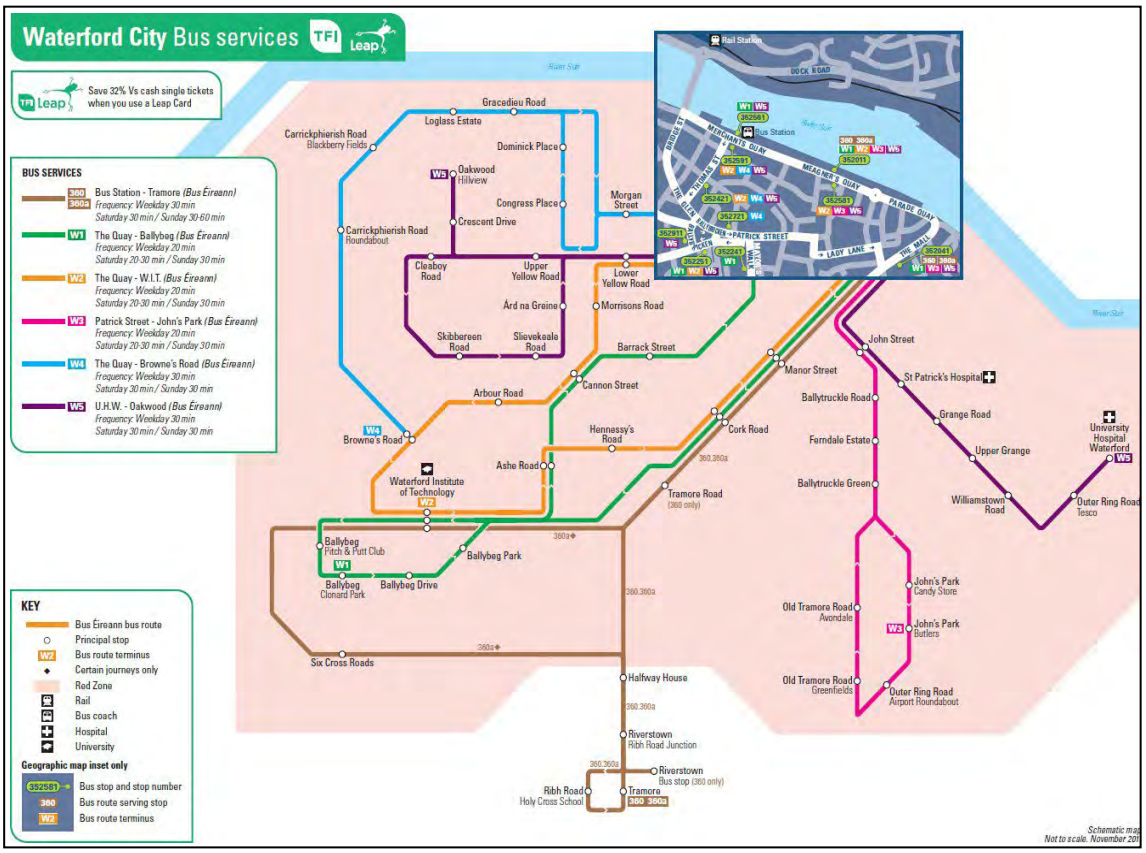


Figure8: Waterford City Bus Network (NTA)

7.4.2 Pedestrian and Cycle Objectives:

- Develop and enhance safe and easy pedestrian and cyclist access to the Nature Park/ RSC from WIT, Ballybeg and new residential developments;
- Develop a looped pedestrian and cycle route incorporating the Waterford Nature Park and the Kilbarry pNHA walk Kilbarry and Lacken Character Area – (please see Section 9.2 for more details);
- Ensure a permeable, high quality and safe sustainable transport network is achieved across existing and new developments. The network shall link development areas to local services such as TUSE, schools, shops, community facilities, parks and amenity areas, etc to ensure a maximum walking time of 10 minutes to a range of such services from any dwelling house (relevant to all character areas) as shown in Figure 9 and 10;

Figure 9: An example of two local permeability projects in Dublin which have significantly improved local access to the LUAS (top) and local shops (bottom) for pedestrians and cyclists. These links formalised routes that were used by locals which previously involved walking across unlit fields, muddy patches and/or climbing over/through fences (Source: DMUS, 2013).

Figure 10: An example of filtered permeability in Dublin (Source: Permeability Best Practice Guide, NTA, 2015)

7.4.3 Public Transport Objectives

- Support modal shift away from private car to public transport, walking and cycling as an attractive means of transport (relevant to all character areas);

- Support the provision of Park & Ride facilities at appropriate locations which are convenient to the Bus Eireann W1 Service (The Quay – Ballybeg) (relevant to Industry and Enterprise Character Area – please see Section 9.4 for more information);
- Support the expansion of the city bus network throughout the study area.

7.5 Street Layout

The framework plan seeks to create a safe and sustainable neighbourhood quarter based on permeable and connected routes that overcomes and incorporates the barriers to movement and links existing and new communities to their amenities. Development within the study area must maximise existing and proposed public transport opportunities. New residential developments must be within walking and cycling distance of educational, employment and community services as well as public transports nodes.

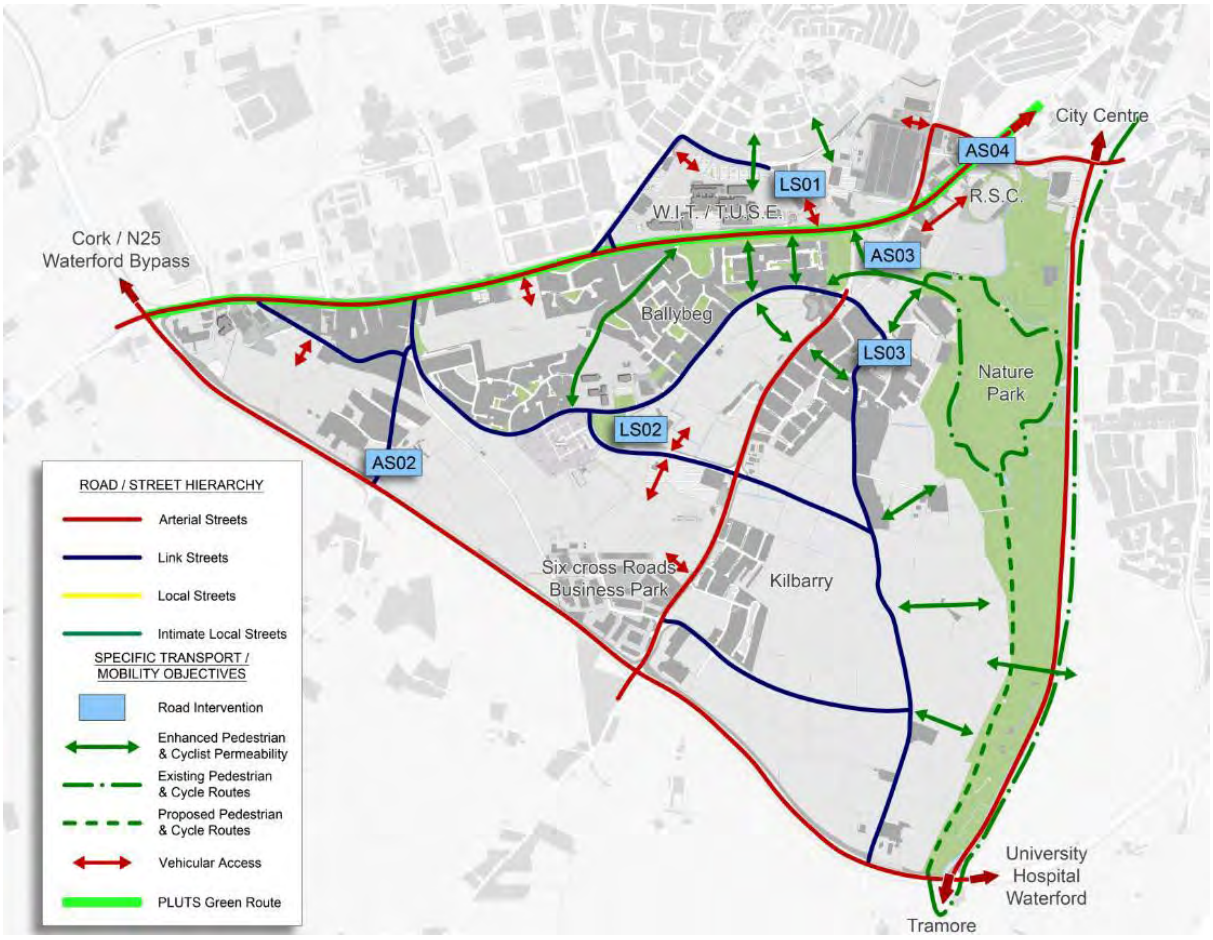


Figure 11: Transportation and Movement Map for the Kilbarry and Ballybeg

The street network within the Urban Design Framework Plan forms an integral part of movement within the study area. The existing and planned streets form a strict hierarchy on the basis of their function, context and location; these include Arterial, Link and Local streets. Arterial and Link Streets

will serve as strategic corridors for multiple modes of transport, including public transport. These streets will help maximise access to existing and planned public transport services. Link Streets will accommodate local bus routes. Local streets will slow traffic completely and serve as intimate homezones.

An example of the street hierarchy is provided in Figure 12 which illustrates the creation of a structure and permeable grid network as a multi-layered process. In general DMURS states that these networks should:

- **Be based on layouts where all streets lead to other streets, limiting the use of cul-de-sacs that provide no through access;**
- **Maximise the number of walkable/cycleable routes between destinations.**

All street typologies within the study area must be designed in accordance with the requirements of:

- DMURS (2013),
- the National Cycle Manual (2011),
- the Guidelines for Setting and Managing Speed Limits in Ireland (2015) in effect at the time of a proposed development,

together with the street typologies illustrated in this Planning Scheme.

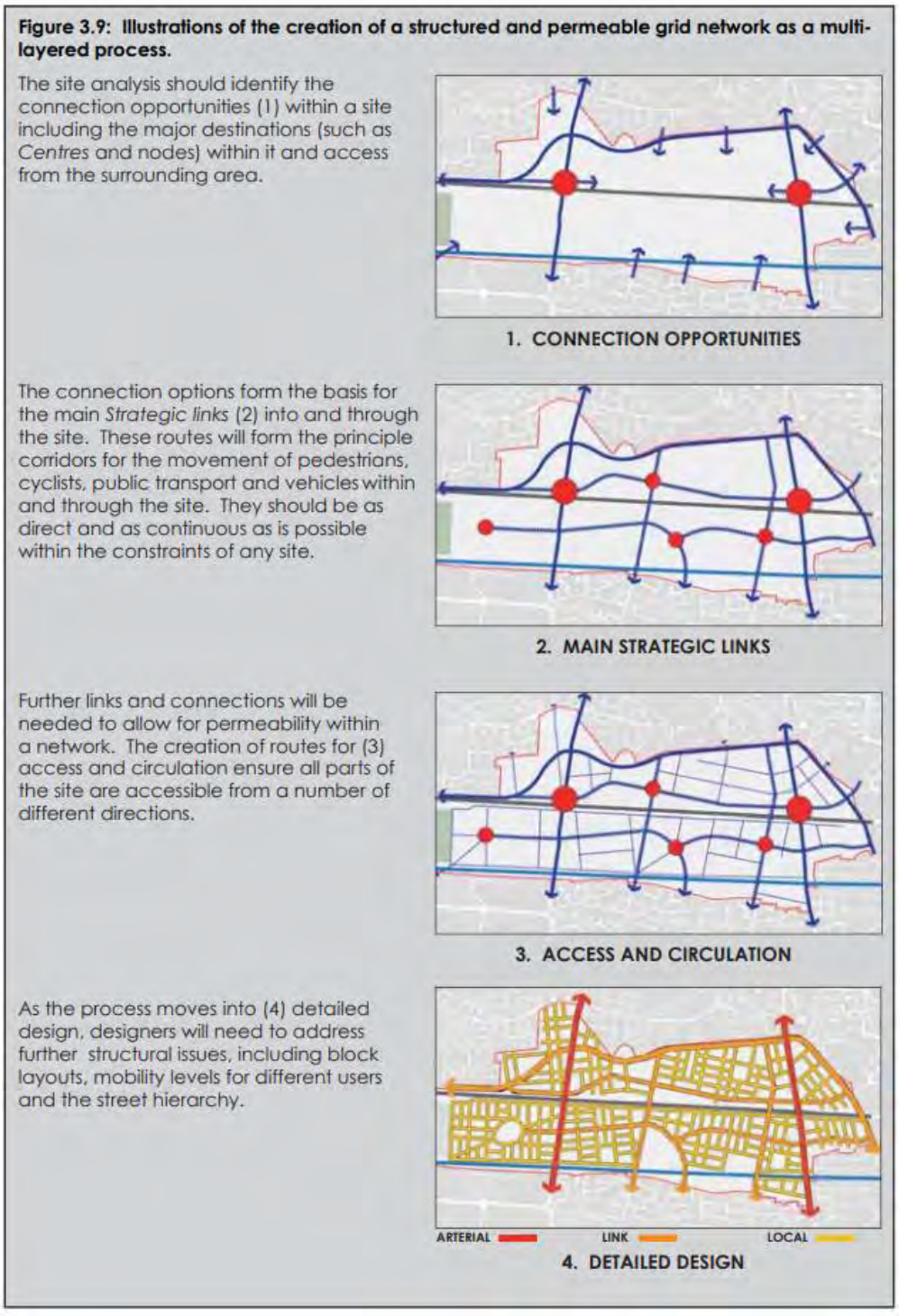


Figure 12: An example of a structured and permeable grid network (DMURS, 2013)

7.5.1 Arterial Streets

According to Design Manual for Urban Roads and Streets (DMURS, 2013), the main purpose of Arterial Streets is to connect major centres at a strategic level. Arterial Streets largely comprise major orbital and cross metropolitan routes such as the Cork Road (R680), Kilbarry Road (L5521),

Cuman na mBan Outer Ring Road (R710), and the Tramore Road (R675), which traverse and bound the study area.

The Urban Design Framework Plan proposes a number of key road interventions which include junction improvements and new junctions/ connections through and along the arterial street of Cork Road and Kilbarry Road which will improve connectivity, and promote a street network that is more urban in character. These road interventions and access objectives are numbered below and should be read in conjunction with the transportation and movement map (Figure 11).

ASO1 Improve pedestrian and cycling facilities on all arterial streets throughout the study area, particularly along the Kilbarry Road where it is envisaged to provide additional crossing points for pedestrians and cyclists which will help increase permeability between the LIHAF lands the neighbourhood centre and the existing Ballybeg residential area;

ASO2 Develop and improve access from Cuman na mBan Outer Ring Road to lands zoned for Industrial and Technology Based Industry purposes located to the south-east of the Ballycashin Roundabout with a secondary access servicing Witches Lane. Limited customer access to a portion of these lands may be available from the Tesco Roundabout on Ballybeg Link Road and from Kilbarry Road;

ASO3 Subject to further assessment by way of a Local Transport Plan/Study, the closing of the existing Ballybeg Drive Road 1(L1518–19) between the Cork Road junction and the Fire Station Roundabout and the provision of a new arterial road from the latter junction to the junction of Ashe Road (L1530) and the Cork Road (R680). See Figure 13 for more detail;

ASO4 Subject to further assessment by way of a Local Transport Plan/Study, implement a clockwise one way traffic flow to alleviate congestion on the Inner Ring Road (R709), the Cork Road and at the RSC roundabout. See Figure 13;

ASO5 Rationalise the location of vehicular access points to the TUSE campus in order to ensure distribution of vehicular movement avoids congestion at any one location. See Figure 11.

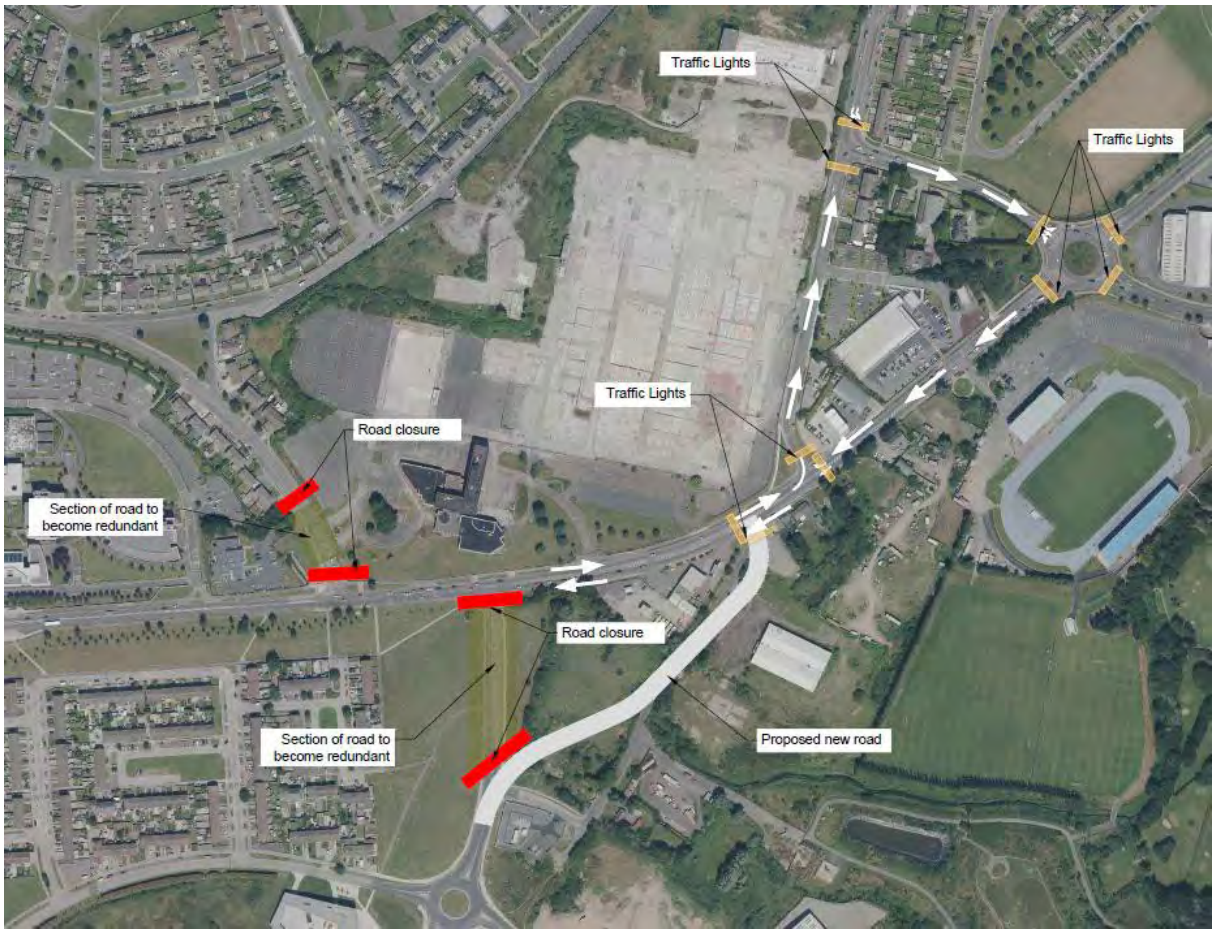


Figure 13: Indicative new junction layout at Cork Road and Kilbarry Road

7.5.2 Link Streets

Link Streets will form a vital linking component between Arterial Streets and Local Streets, and will be instrumental in creating a highly accessible and permeable street network. Link Streets will act as the principle corridors for the movement of pedestrians, cyclists, public transport and vehicles within and through the study area.

Traffic speeds will be reduced along Link Streets in order to promote walking and cycling. Existing roads that are designated as Link Streets within the study area, are Ballybeg Drive (L1518), Ballybeg Link Road (L5039/L90973), Lacken Road (L5522) and the new LIHAF Road. All road and access objectives for Link Street are numbered below, and should be read in conjunction with the transportation and movement map (Figure 11).

LSO1 Consider options for management of north-south and south-north traffic across the study area on Kilbarry Road and Claremont Road with a view to diverting traffic away from the centre of the neighbourhood while maintaining residential amenity in other residential areas;

LSO2 Consideration could be given to providing a cul de sac on the section of Ballybeg Link Road (L90973) east of St. Saviours Park along with a reduction of carriageway width to facilitate a physical link between the park and the adjacent Ballybeg Community Development Project campus;

LSO3 Reconfigure traffic movements and junctions on the Lacken Road post the coming into operation of the LIHAF Road;

LSO4 Improve and prioritise cycling and pedestrian facilities on all Link Streets throughout the study area to facilitate the modal shift from car based transport to sustainable modes;

LSO5 Maintain and facilitate vehicle access from Link Streets throughout the study area to undeveloped zoned lands as shown on Figure 11.

7.5.3 Local Streets and Intimate Local Streets

Local Streets provide access within communities and to Arterial and Link Streets. Local Streets act as quieter traffic-calmed thoroughfares that are closely fronted and overlooked by development, and provide through-access to neighbourhood blocks and local open spaces. They tend to carry less vehicular traffic and place a greater emphasis on pedestrian and cycling movement. Existing streets within residential developments such as Ballybeg, Meadowbank, Templars Hall, Lacken Wood, Foxwood and Carraig An Aird, perform some functions of local streets but lack through-connectivity. Proposed Local Streets will make up the majority of streets east and west of the Lacken Road (L5522). A number of Local Streets will include homezones and will be classed as Intimate Local Streets. These streets will be a fully shared surface for the integrated movement of vehicles, pedestrians and cyclists.

8.0 GREEN INFRASTRUCTURE AND OPEN SPACE STRATEGY

The provision of a high quality landscape inclusive of green infrastructure, open space, recreation amenities and biodiversity, is essential in creating an attractive and successful environment in which people will enjoy living, working and visiting.

This framework plan makes provision for an expanded and improved network of green linkages and biodiversity areas. The main proposals of the green strategy are outlined in Figure 14.

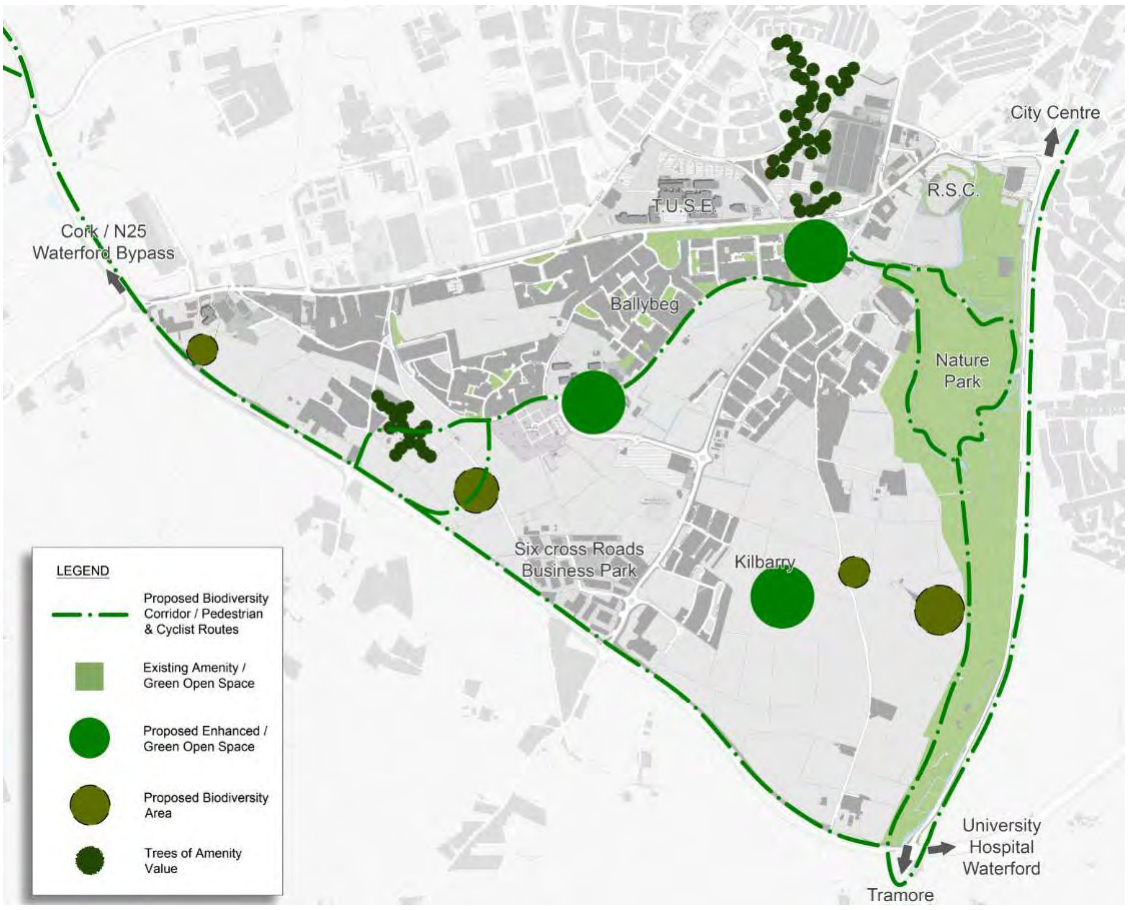


Figure 14: Green Infrastructure and Open Space Map

8.1 Green Infrastructure and Open Space Objectives

- Facilitate the development of an off-road biodiversity corridor along the Cum na mBan Outer Ring Road (linking the River Suir river walk with the Waterford Greenway) and from the Ballycashin Roundabout along Ballybeg Drive linking to the Nature Park (the corridor should be c.5/10m wide and should be planted with naturalised tree spaces such as birch, oak, alder and ash);
- Develop a looped walk way/biodiversity corridor along the Tramore Road;
- Retain and enhance the two knocks at Carrigroe (east of Tramore Road) and Butlerstown Knock as biodiversity areas;
- Maximise the biodiversity and pollinator potential of the area through sustainable maintenance policies and habitat enhancement measures;
- Enhance and develop high quality active and passive recreation open space at selected areas as shown in Figure 14. These areas will be available to a wide and diverse range of the population in order to encourage a more active lifestyle;

- Protect trees of amenity value as designated in the current Waterford City Development Plan 2013 – 2019 located east of Butlerstown Road and associated habitats.

9.0 CHARACTER AREA DESCRIPTION

9.1 University District (TUSE Campus/Opportunity Sites/RSC/Nature Park)

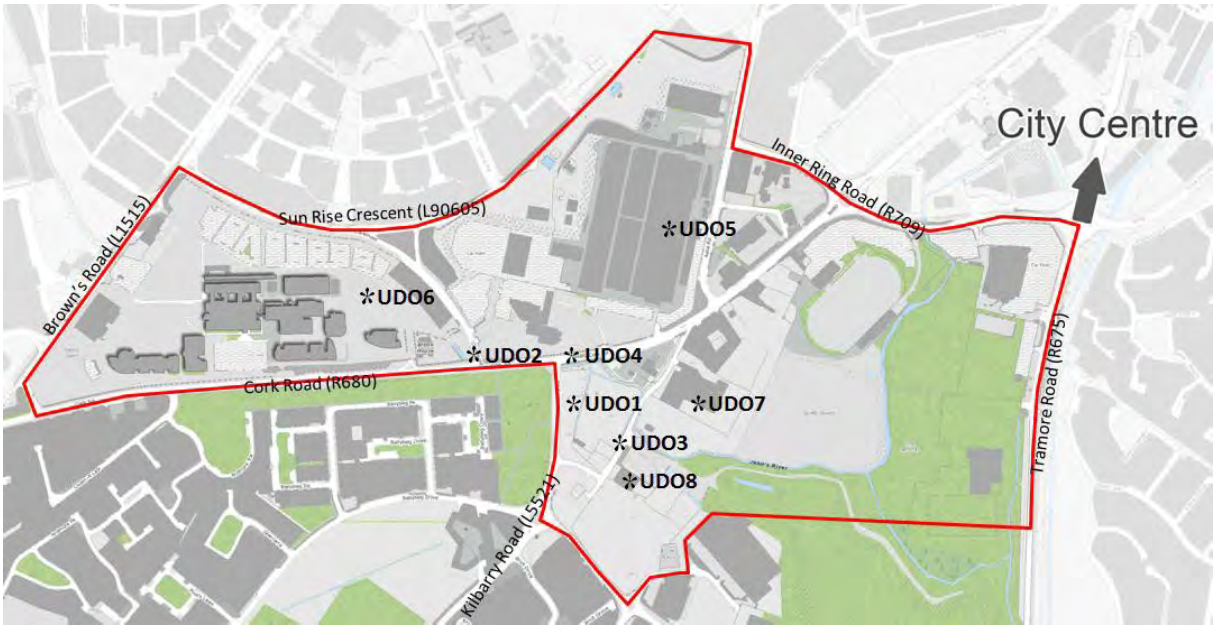


Figure 15: Depicts key objectives for the University District Character Area

KEY OBJECTIVES:

UDO1 Support the development of taller/landmark buildings[3] of mixed commercial/residential uses along Ballybeg Drive within the zoned opportunity site and along the Cork Road to create streetscape, enclosure and sense of place in and around the TUSE campus;

UDO2 Define a University District as a key entry gateway into the city through the assimilation of the third level campus into its urban context. This could be manifested by a reduction in carriageway width along the Cork Road from its junction with Browns Road to the new junction proposed at the bottom of Ashe Road (L1530), provision of effective traffic calming measures, increased planting and the creation of two prominent public plazas at key nodes along this section of road i.e. at main car park adjacent to Luke Wadding Library building and at the existing junction of the Cork Road and Ballybeg Drive as shown in Figure 16 – 21;

3 Building design shall be consistent with the Urban Development and Building Heights: Guidelines for Planning Authorities, DHPLG (December 2018).

UDO3 Ensuring safe and easy access to Kilbarry Park, Waterford Nature Park and the RSC from the TUSE campus and wider Kilbarry area;

UDO4 Support the provision of a public space/plaza to link the TUSE campus, the former Waterford Crystal site, Ballybeg and Yellow House regeneration lands together;

UDO5 Former Waterford Crystal site identified for possible TUSE expansion and associated enterprise and ancillary student services;

UDO6 Enhance the profile and status of the TUSE within the context of the immediate area, the broader city and South East Region through appropriate rebranding such as renaming of a section of the Cork Road;

UDO7 Lands zoned as Opportunity Site to the south of Cork Road at the Yellow House are identified for some commercial uses such as a neighbourhood scale convenience shop, ancillary student retail services, student accommodation, residential, hotel and office use. The lands will also accommodate an enhanced access to Waterford Nature Park linking the nature park to TUSE via a new plaza referred to under UD02 above;

Site development works to lands lying within the Yellow House opportunity site will be required to be consistent with the requirement of the Planning System and Floor Risk Management: Guidelines for Planning Authorities DEHLG (November 2009), or any amendment thereto.

Figure 16: Existing/ Indicative images of the Cork Road/University Mile

Figure 17: Existing images of the Cork Road/ University Mile

Figure 18: Indicative University Plaza on the Cork Road/University Mile

9.2 Kilbarry & Lacken - LIHAF Lands - Undeveloped zoned lands between Kilbarry Road & Lacken Road

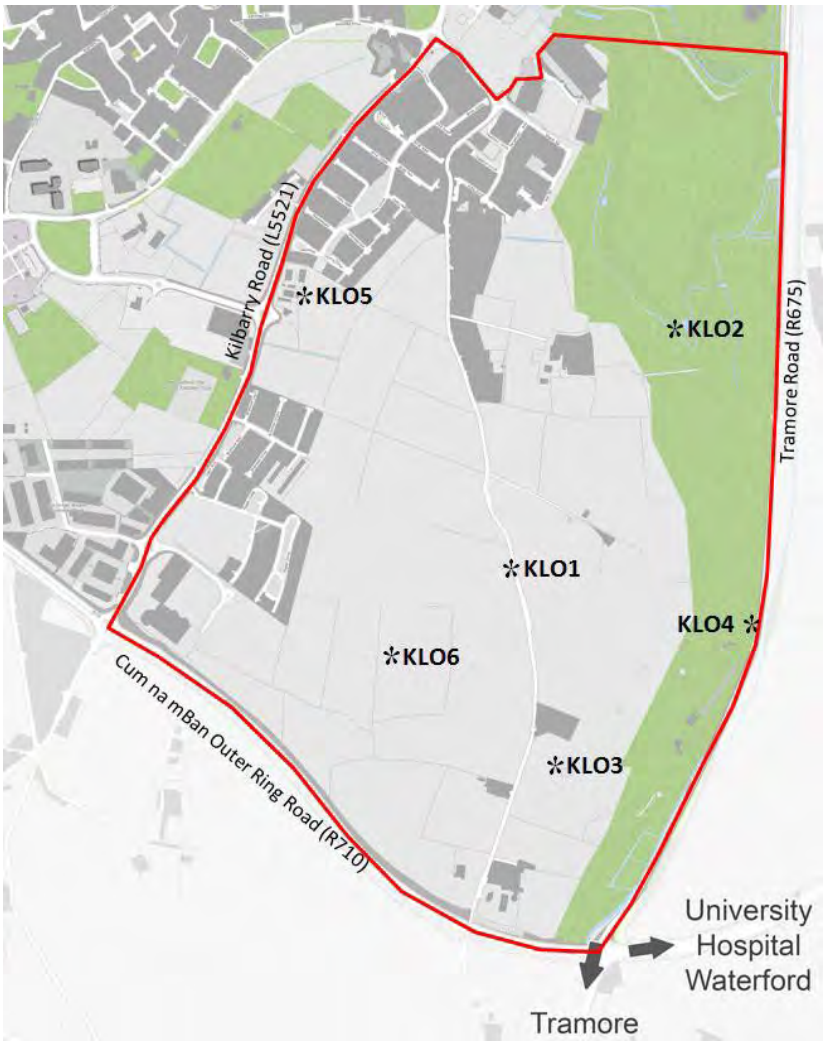


Figure 22: Depicts key objectives for Kilbarry and Lacken District Character Area

KEY OBJECTIVES:

KLO1 Facilitate the provision of public services such as roads, water, wastewater, surface water and amenities space;

KLO2 Ensuring safe and easy access to Waterford Nature Park and RSC from a new looped walk which abuts the boundary of the pNHA and from existing and new residential areas;

KLO3 Ensure all existing and proposed streets/roads are consistent with the block layout, street hierarchy and building heights as shown in Figure 11, Figure 23 and the design brief and associated guiding design principles as set out in Appendix 1, refer to Figure 24 – 26 for further guidance;

KLO4 Develop a pedestrian and cycle route from residentially zoned lands east of the Lacken Road to the Tramore Road south of the Black Road at Carrigroe (which is outside the pNHA) and link with the John's River Walk way east of the Tramore Road;

KLO5 Rezone c.3.6 ha of land east of the Kilbarry Roundabout (by Tesco Ballybeg) and north of the proposed LIHAF Road from 'Residential' to 'Community Facilities' to facilitate a new school campus;

KLO6 Rezone c.3.6 ha of land west of the Lacken Road and north of the southern section of the LIHAF from 'Community Facilities' and 'Open Space' to 'Residential' to facilitate the construction of the new post primary school at KLO5[4].

Figure 23: Depicts indicative street, block layout and areas for taller buildings for undeveloped residential land in Kilbarry and Lacken District Character Area

4 The direct swap between residential zoning at KLO5 and community facilities and open space zoning at KLO6 (c. 3.6ha) will have no effect on the Core Strategy.

Figure 4.4: Extract from the Adamstown Street Design Guide.
Illustration of the psychological and physical, or 'hard' and 'soft', measures that influence driver speeds and may be used to enhance place and manage movement.

Close Proximity of Buildings (left)

Continuous Street Wall (right)

Active Ground Floor Uses (left)

Pedestrian Activity (right)

Frequent Crossing Points and Junctions (left)

Horizontal and Vertical Deflections (right)

Narrow Carriageways (left)

Minimising signage and road markings (right)

Reduced Visibility Splays (left)

On-Street Parking (right)

Tighter Corner Radii (left)

Shared Surfaces (right)

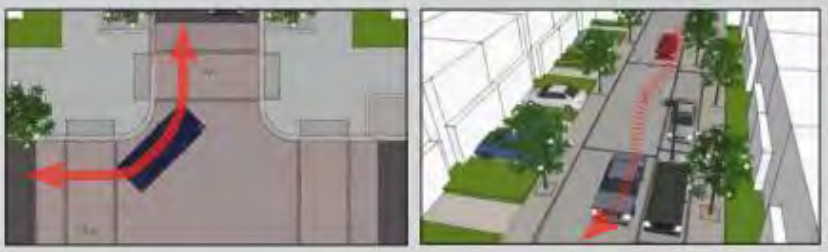


Figure 24: Examples of different block boundary treatments which provide front door access to streets, passive surveillance and influence driver speeds.

Figure 26: (left) Activity on a shared surface street at Furry Hill, Dun Laoghaire Rathdown County Council. Removing cars and their associated design requirements (kerbs, barriers, markings) signals clearly that this is a street designed for people and allows for relaxed activity by residents (Source, Urban Design Manual 2009).

Figure 27: (right) Example of a semiprivate shared space to the rear of houses at Kill, Co. Kildare (Source, Urban Design Manual 2009).

9.3 Neighbourhood and Community Hub: Fire Station – Tesco Ballybeg

Figure 28: Depicts key objectives for Neighbourhood and Community Hub Character Area

KEY OBJECTIVES:

NCO1 Facilitate the development of a neighbourhood centre along the Ballybeg Link Road from the Kilbarry Roundabout to Tesco Roundabout which would act as de facto focal point for the local community and which would be anchored by a mix of appropriate commercial, community/ social and residential uses as shown in Figure 29 and 30;

NCO2 Traffic calm Ballybeg Link Road and its junction with Kilbarry Road by introducing signal controlled junctions, reducing usable carriageway width, enhanced tree planting and creating an intimate public realm with a high standard of architecture design and material finish. This reconfigured street will link the new residential area south of the Kilbarry Road to the existing Ballybeg residential area and create a community focal point for the study area shown in Figure 29 and 30;

Figure 29: Indicative layout of Kilbarry/Ballybeg urban village street

Figure 30: Indicative layout of Kilbarry/Ballybeg urban village street

NCO3 Utilise building heights along Ballybeg Link Road to create a landmark buildings at the junction of Ballybeg Link Road and Kilbarry Road to create a sense of place for the expanding neighbourhood centre. Building height will be subject to compliance with relevant design guidance in place at the time[5];

NCO4 Rezone c. 2.3 ha land north of Ballybeg Link Road and West of Kilbarry Road from 'New Residential' to 'Community Facilities' in order to accommodate the development of a school campus. Buildings should be placed along the perimeter of the street in order to assist in framing the streetscape along Ballybeg Link and Kilbarry Road and assist in creation of a sense of place as shown in Figure 31 and 32[6];

NCO5 Facilitate the development of an urban street on the southern side of Ballybeg Drive west of the Fire Station on lands zoned for new residential purposes. Buildings should be placed along the perimeter of the street in order to assist in framing the streetscape along Ballybeg Drive and assist in creating of a sense of place as shown in Figure 33 and 34;

NCO6 St. Saviours Park is an important public space which is currently underutilised for reasons of exposed location and severance by public roads. The park could be retained with enhanced biodiversity planting and physically linked to lands east of

5 Building design shall be consistent with the Urban Development and Building Heights: Guidelines for Planning Authorities, DHPLG (December 2018).

6 The change from residential zonings to community facilities (c. 2.3ha) directly correlates with the change in zoning in Section 9.5. BGO2 and BGO3 from open space to residential and therefore no change to the Core Strategy will occur.

Ballybeg Link Road in the vicinity of Ballybeg Community Development Project as shown in Figure 35 and 36;

NCO7 Enhance open space and biodiversity by developing a biodiversity corridor along Ballybeg Drive linking Waterford Nature Park to St. Saviour's Park and further south to Cumann na mBan Outer Ring Road through the Six Cross Road Business Park & Witches Lane character area as shown in Figure 11. Where new development is proposed this should be laid out to facilitate the corridor enhancement.

Figure 31: Existing image of Ballybeg Link Road and Kilbarry Road

Figure 32: Indicative image of Ballybeg Link Road and Kilbarry Road showing indicative school building situated on the corner

Figure 33: Existing image of Ballybeg Drive

Figure 34: Indicative image of Ballybeg Drive

Figure 35: Existing image of St. Saviour Park

Figure 36: Indicative image of St. Saviour Park

9.4 Industry & Enterprise Zone - Six Cross Road Business Park & Witches Lane

Figure 37: Depicts key objectives for Industry and Enterprise Zone Character Area

KEY OBJECTIVES:

IE01 Protect trees of amenity value as designated in the current Waterford City Development Plan 2013 – 2019 located east of Butlerstown Road and associated habitats;

IE02 Incorporate flood attenuation and green infrastructure as a requirement for future development on lands zoned for Technology Based Industry south of the Green Road (L5520) and north of the Cumann na mBan Outer Ring Road;

IE03 Retain Butlerstown Knock as a biodiversity area;

IE04 Enhance open space and biodiversity network by linking new biodiversity corridor and spaces to Waterford Nature Park as shown on Figure 14. The corridor should include the designated amenity trees and new wetlands to be developed to manage storm water runoff in the area and connect to Cumann na mBan Outer Ring Road and the Waterford Greenway.

9.5 Ballybeg (Including Mixed-use zoned lands south of the Cork Road)

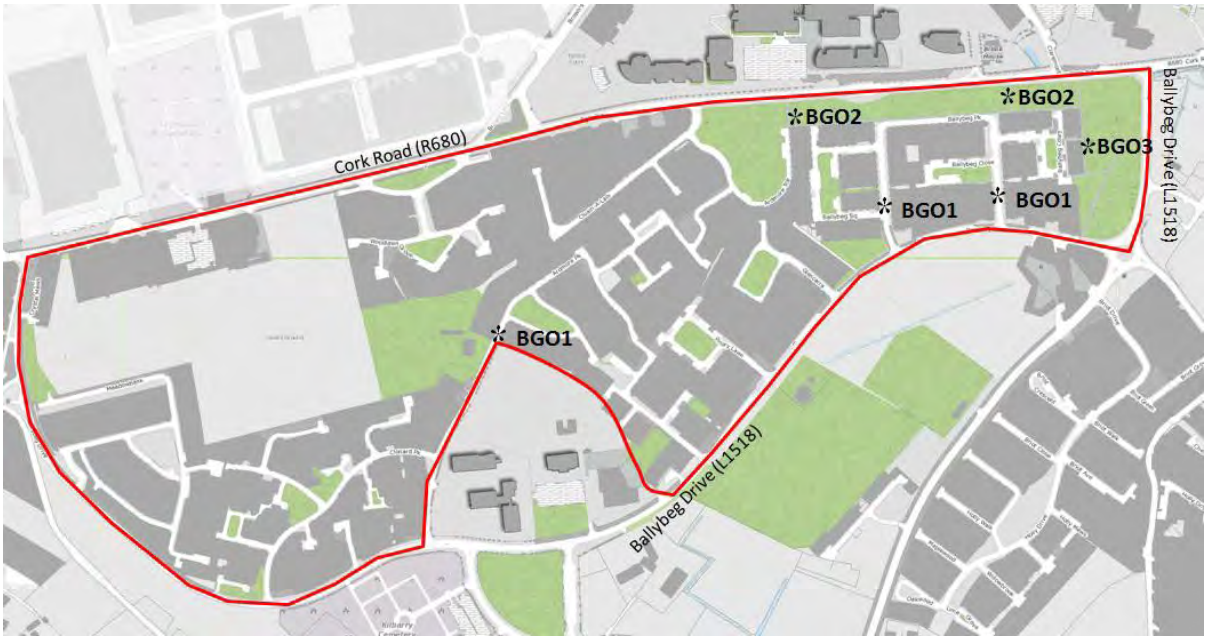


Figure 38: Depicts key objectives for Ballbeg Character Area

KEY OBJECTIVES:

BG01 Create focal points/features and enhance pedestrian/cycle connectivity across existing built up area linking the TUSE campus with Ballybeg Drive and beyond;

BG02 Investigate the repurposing of land south of the Cork Road and west of the Kilbarry Road from 'Open Space' to 'New Residential' to facilitate the development of a number of appropriately scaled residential buildings which will enhance the quality of urban spaces and assist in creating a counter balance to the larger WIT buildings to north of Cork Road. New buildings could be aligned so as to visual screen the rear of properties at Ballybeg Court and Ballybeg Square which face onto the Cork Road.

BG03 Similarly, provide lands between Ballybeg Court and Ballybeg Drive (Road no. 1) to facilitate the physical enclosure of a new plaza to the east while visually screening the rear of properties at Ballybeg Court[7].

7 The three new blocks of residential zonings will not exceed 2.3ha as this directly correlates with the change in residential zoning in the Neighbourhood and Community Hub Character Area from 'Residential' to 'Community Purposes' (Please see Section 9.3 NCO4) and its replacement in BGO2 and BGO3 above. This will result in no change to the Core Strategy.

APPENDIX ONE –– BUILT FORM AND DESIGN PRINCIPLES

A.1.0 Introduction

The following sections of this document provide guidance with regards to the design and layout of undeveloped parcels of land within the study area, with particular focus on lands zoned for Opportunity Sites within the University District character area (i.e. the former Waterford Crystal site and The Yellow House site). The primarily Greenfield/Brownfield nature of the former Waterford Crystal factory site and the Yellow House sites presents an opportunity to create a coherent framework of streets, buildings, parks and spaces. The following sections set out key parameters in relation to design, block size, block form, street frontage, topography, urban grain and street design. The guidance will assist developers, architects and planners in creating an integrated urban district comprising of well-designed character areas and linkages to and between new and existing surrounding neighbourhoods.

A2.0 Design Criteria

To develop a coherent design approach to new development across the study area, the external renders of structures and the overall appearance and design of development must relate to the design led criteria set out under the:

- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009);
- Retail Planning Guidelines for Planning Authorities (2012);
- The Urban Design Compendium (2000); and
- Urban Design Manual (2009).

Streets and junctions should be designed in accordance with:

- DMURS (2013); The National Cycle Manual (2011); and
- The Guidelines for Setting and Managing Speed Limits in Ireland (2015).

A2.1 Design Statement

To ensure a quality and coherent approach in design, all medium to large scale development proposals across the study area and within the University character area (i.e. Landmark Buildings, 10 dwellings or more in the case of residential development or development of over 1,000 sqm in the case of employment or retail/ non-retail services development) should be accompanied by a Design Statement that:

- Demonstrates compliance with the overarching principals objectives as highlighted in Section 3 of the design framework;
- Includes a masterplan that demonstrates proposed and future integration with the development of surrounding sites and character areas within the study area including vehicular, pedestrian, cycle and public transport connections;
- Demonstrates compliance with the 12 design criteria contained within the Urban **Design Manual A Best Practice Guide (2009)** in the case of residential development;
- Demonstrates a mix of dwelling types to support a variety of household sizes and dwelling types;
- Demonstrates compliance with the 10 design criteria contained within **the Retail Design Manual (2012)** in the case of retail development;
- Includes street cross sections and plans that demonstrate compliance with **DMURS (2013)** in terms of 'Movement, Place and Speed', 'Streetscape', 'Pedestrian and Cyclist Environment' and 'Carriageway Conditions' etc.;
- Includes a Quality Audit addressing street design as outlined under DMURS (2013); and
- Includes cross sections that demonstrates appropriate design responses to existing and proposed site levels including those that relate to streets, spaces, building frontages, services and SUDS

A3.0 Connections

Successful neighbourhoods generally tend to be well connected to places and amenities which support a good quality of life. Any new development within the study area must provide for and create links within the study area and with more established areas surrounding it. These links must include the following:

- Attractive routes in/out for pedestrians and cyclists;
- Placement of development close to mixed use centres;
- The design of a development allows for a bus service;
- Identify desire lines and plan routes along these lines; and
- Provide appropriate densities which can avail of public transport.

A3.1 Urban Grain and Facade Treatment

It is widely accepted that the creation of satisfactory street space requires the enclosure of space either through buildings or planting of trees. These spaces are safe, visually pleasing and create a sense of place.

To create this 'enclosure of space' and to increase density within proposed new developments it is necessary to achieve a continuous built frontage along the street or block edge, where possible. Connecting buildings to one another creates active street frontages, minimises heat loss through external walls and allows more economic construction. This should not result in the mono design of terrace buildings but reflect the fabric of historic towns centres which are largely made up of individual buildings which are joined to one another. The architectural diversity, vibrant mix of finishes and building types will aid in place making, way finding and add to the legibility of the overall development.

In master planning the undeveloped lands within the study area in particular the former Waterford Crystal and Yellow House sites an opportunity arises to subdivide these character areas into development parcels. This will further enable the area to develop a richer mix of building types, tenures and uses. The Urban Design Compendium suggests that parcels of 1 to 2 hectares will avoid a 'monoculture' in any area. Block form and design is explained in more detail in the section below.

Section A3.1. Key Points:

- Enclose space through continuous built frontage along street/block edge;
- Provide for architectural diversity and mix of finish in building type;
- Divide area into development blocks of 1-2 hectares to avoid 'monoculture' design.

A3.2 *Block Form and Size*

The development of Greenfield and Brownfield sites across the study area should be shaped by a hierarchy of streets and divided into a series of development blocks that will present strong building frontages to surrounding streets. Blocks can vary considerably in shape and size according to the configuration of streets, orientation and topography and the nature of plot sub-division and building types that are to be accommodated.

A3.2.1 Block Form

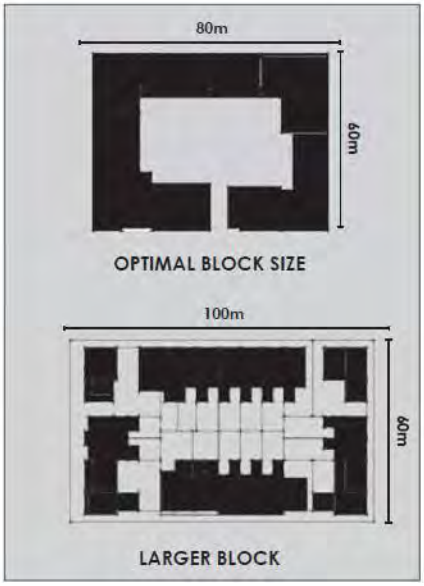
Buildings should be laid out in perimeter blocks across the undeveloped lands. The fundamental requirement in structuring built form within the development blocks is to make a clear distinction between public fronts and private backs. Buildings which front street and public spaces present their 'public face' and create active street frontages.

Well designed blocks can enclose private and semi-private open spaces. All blocks should be designed according to the following principles:

- Building massing to the perimeter of the block;
- Building frontage to all sides, including the shorter sides (secondary street frontage) of the block;
- Proper design and attention to corners, avoiding dead or windowless gables;
- A continuity of building frontage, which relates to the local or urban context, and avoidance of blank walls;
- Block layout places some public spaces in front of building lines as squares or greens, and some semi private spaces to the back as communal courts;
- An appropriate scale of buildings to provide the appropriate level of enclosure of the streets and spaces;
- Adequate back-to-back distances within the block;
- Appropriate building set-backs from the street in line with the use of ground floors;
- Adequate arrangements for car parking and access around, within or below the block; and
- Carefully considered subdivision of the block into plots where fine urban grain or mixed use is proposed.

A3.2.2 Block Size

To encourage pedestrian and cyclist permeability and ensure that streets and blocks are dimensioned to reflect their function and setting, reduced block lengths should be utilised across the study area. Block sizes on The Yellow House sub area 3 of the University District character area and undeveloped lands of sub area 3,4 and 7 of the Kilbarry and Lacken character area should have dimensions of approximately 60 to 80 metres and should be no more than 100 metres in length/depth as illustrated in Figure 39. Block dimensions on the former Waterford Crystal Site sub area 2 of the University District character area should be no more than 100 metres. Larger or irregular blocks of up to 120 metres should be broken up using mid-block penetration. Section 3.3.2 of DMURS (2013) should be consulted in the design of block size.



Section A3.2 Key Points:

- Building massing to the perimeter of the block;
- Scale of building to provide enclosure of streets and space;
- Optimal block size is c.80mX60m which allows for increased permeability for walker and cyclists.

Figure 39: Optimal and Larger Block Sizes which will promote a 'walkable' neighbourhood (Source: DMURS, 2013)

A3.3 Dwelling Type

All new residential development should be inclusive with regards to the provision for housing of different types, sizes and tenures. Providing this choice will enable people from different backgrounds to benefit from the opportunity afforded by the development, and will help to create a balanced, sustainable community.

On larger developments, the overall mix should be selected to create a mixed neighbourhood that can support a variety of people through all stages of their lives as depicted in Figure 40.

Figure 40: Illustrates a residential scheme with a mix of housing sizes and forms which covers a range of demographics (Source: Urban Design Manual, 2009)

A3.4 Access for All/ Universal Design

The design of all new buildings and space within the study area should be inclusive and meet the needs of all users, regardless of age, gender, race or sensory and mobility abilities (Urban Design Manual, 2009).

Particular attention should be given to users of buggies, people with disabilities and the older people. Buildings and public space should be designed to accommodate a lifetime from raising young children, teenage years to having Grandparents stay.

Section A3.3 and A3.4 Key Points:

- New developments should be inclusive and include a mix of dwelling type, size and tenures;
- The design of buildings and space should meet the needs of all;

A3.5 ***Permeability & Legibility***

New developments within the study area must be supported by a permeable and legible street network that offers a choice and flexibility for managing movement.

A3.5.1 Permeability

There should be good connections for walking and cycling between adjacent neighbouring area/developments, and wherever possible, a choice of routes between one location and another. Where it is not practicable to provide vehicular links between old and new residential areas, there is often no reason why pedestrian and cycle links cannot be achieved. Opportunities to organize permeable layouts in a way which extend or link into established walking/cycle routes should be taken.

Permeable layout offers the pedestrian a selection of routes providing greater visual interest. The higher level of pedestrian activity generated provides greater security. If there are more pedestrians around in the street there is a greater chance of casual social encounters and less anti-social behaviour and criminal activities. In order to allow free movement the ideal pattern would be a deformed grid based on the use of small residential blocks (Making Places: A Design Guide for Residential Estate Development, 2011).

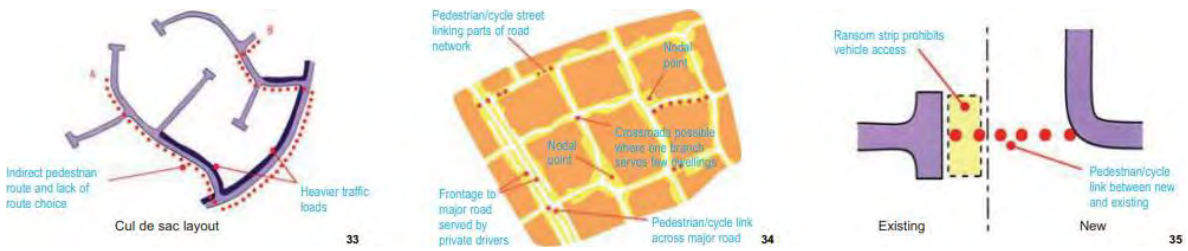


Figure 41: Depicts residential development which have a permeable and non-permeable layout (Source: Making Places: A Design Guide for Residential Estate Development, 2011)

A3.5.2 Accessible Streets

All character areas should be designed so that they are walkable. Blocks must be permeable as to encourage more sustainable active modes of transport by providing direct walking and cycling links to public transport and local shops/services which will reduce the dependency on the private car.

The design of streets/roads has a major impact on the level of permeability and safety within new developments. Streets and roads which are characterised by narrow carriageways, active facades, several points of access and frequent crossings will encourage walking and cycling as shown in Figure 42. These types of environments will produce a much safer environment for pedestrians and cyclists as they slow the flow of vehicles, create passive surveillance and provide exist points. In the design of streets particular attention should be paid to Section 7 of this document.

Figure 42: The elimination of access and frontage along roads was introduced to reduce risk, but it serves to encourage speeding (DMURS, 2013)

A3.5.3 Legible Street

Residential development in recent years has been characterised by a sense of sameness, with entire housing estates designed with a uniform house type and layout. This generic design motif in conjunction with street layouts with proliferation of cul-de-sacs surrounded by faster distributor/link

roads with limited pedestrian/vehicular access makes for a poor and extremely difficult environment to navigate for the end user.

The layout of new residential development within the study area should be designed around a set hierarchy of streets and building types that work in unison to promote a highly legible environment as suggested in Section 7.5 above.

The height and scale of buildings must relate explicitly to street types, with larger scale buildings on major streets (e.g. Cork Road, Ballybeg Link Road, and Kilbarry Road) and lower scale buildings on minor streets (e.g. LIHAF and other residential streets). Important corners and areas around public open space, such as St. Saviour's Park, lend themselves to taller buildings. The design framework also provides for the placement of landmark buildings at key strategic locations namely at the junction of the Cork Road at Kilbarry Road (on lands zoned for 'opportunity sites' purposes within the Waterford City Development Plan 2013 – 2019). These landmark buildings will assist in enclosing new public spaces at the plaza's on the Cork Road.

***Section A3.5.Key Points*:**

- Streets and roads should be designed so that they include several:
    - Access points;
    - Frequent crossings;
    - Encourage walking/cycling.
- New developments must be designed around a hierarchy of streets and buildings to promote legibility.

A3.6 Landmark Buildings

In the interest of place making and improving legibility, Local Landmark Buildings and Landmark Buildings should be incorporated into the design of any new developments at key locations across the study area.

In the development of Landmark Building their design as opposed to building height should be a key determinant. Their design should be unique and distinctive from surrounding buildings in architectural treatment and use of materials. To further distinguish their place-making function, Landmark Buildings should include high quality public realm treatment in terms of surrounding

street planting, furniture, lighting and materials etc. The design of such buildings should be based on a coherent design concept that is clearly communicated via a Design Statement and Landscape Plan.

In addition to the above and the requirement of set out in Section A2.1, a Design Statements for Landmark Buildings should also analyse and illustrate the impact of the proposed development in relation to its immediate and wider context including views/vistas within and beyond the draft URDF lands and in terms of sunlight and daylight effects. All proposals will be considered on their merits subject to compliance with this design framework, Waterford City Development Plan 2013 – 2019 and relevant Government Guidelines.

A3.7 Corner buildings

Corner buildings offer another opportunity to define and enclose space. These sites are visually prominent as they have two frontages facing the public street. These types of buildings can also potentially offer more entrances to different parts of the building. Corner buildings therefore provide special opportunities for mixing uses. See Figure 43 which illustrates possible corner treatment.

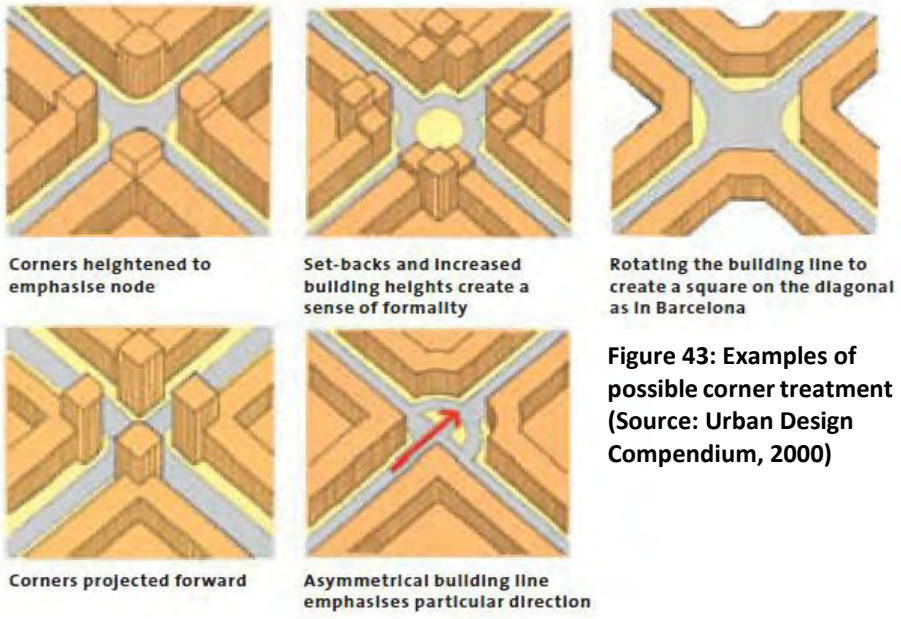


Figure 43: Examples of possible corner treatment (Source: Urban Design Compendium, 2000)

It is important to note that houses on corners need to face two ways; many standard building types used by housing developers are rarely able to do this. It is therefore necessary that more tailored designs be considered for these sites. Corners are best emphasised by incorporating prominent entrances and/or windows at the apex, expressing the height by, for instance, using a 'mansion block' of apartments, or incorporating a special use into the mix (Urban Design Compendium, 2000).

Section A3.6 and A3.7 Key Points:

- New developments must include landmarks and landmark buildings which will help create a sense of place and improve legibility;
- Corner buildings within residential developments need to be designed to face two ways.

Appendix 7

Renewable Energy Strategy 2016-2030

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 - 2028

Appendix 7

Renewable Energy Strategy for Waterford City & County 2016-2030

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

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Introduction

Energy is fundamental to all our lives. The development of renewable energy has become a central focus of Ireland's energy policy and it is anticipated that renewable energy will play a major role in addressing our energy challenges over the coming decades.

Renewable energy reduces dependence on fossil fuels, improves security of supply and reduces greenhouse gas emissions. Renewable energies thus provide environmental benefits whilst also being complimentary to economic growth.

There is now a scientific consensus that climate change is happening, that it is directly related to man-made greenhouse gas emissions, and that it is imperative that we act now to avoid devastating impacts on our planet.

There is also an economic consensus that the costs of doing nothing will greatly outweigh the costs of action, and that progressive renewable energy policies, based on innovation and investment in low-carbon technology, are consistent with economic growth.

To date, onshore wind has largely been the main renewable energy source deployed in Ireland. However, no single renewable energy technology will assist Ireland's transition to renewable energy but rather a diverse range of technologies will be required.

Another important component of Ireland's transition to renewable energy will involve the role of citizens and communities both through active participation in renewable energy generation and energy efficiency and through improved community engagement in policy formulation and implementation.

This Renewable Energy Strategy has been prepared for Waterford City and County in the context of EU and national renewable energy targets. Waterford has varied renewable energy resources with objectives to support the development of renewable energy contained in the Waterford County Development Plan 2011-2017

& Waterford City Development Plan 2013-2018 and Dungarvan Town Development Plan 2012-2018. The purpose of this Renewable Energy Strategy is to provide a strategic document which will underpin these Plans and inform their future review.

The Renewable Energy Strategy examines the renewable energy potential for the city and county and considers the strategic planning factors contributing towards the deployment of such renewable energy. It also highlights the importance of integrating renewable energy and landuse planning. To this end, the Strategy recognises that there is a need to strengthen links between renewable energy and landuse planning through County Development Plans, Strategic Development Zones and other local plans.

The Strategy forms part of the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011-2017 and Dungarvan Town Plan 2012-2018, and will be adopted by way of variation to these plans, respectively. It is underpinned by a Strategic Environmental Screening Assessment and a Habitats Directive Screening Assessment. These assessments are attached as appendices to this document.

1.0 Renewable Energy Overview

1.1 What is Renewable Energy?

Renewable energy is energy derived from natural resources that are continuously replenished through the cycles of nature. They can be harnessed without damaging the environment, unlike using fossil fuels which release carbon dioxide (a greenhouse gas) and other harmful pollutants into the atmosphere.

Some renewable technology is well developed (e.g. wind) and other areas need more research and development (e.g. wave). Therefore, the technical and commercial viability of each source varies considerably. Renewable sources include:

Solar	**Biomass**
Passive solar design	Energy crops
Active solar heating	Forestry
Photovoltaics	Biogas
Hydro	Anaerobic digestion
Hydroelectric (large scale)	Municipal waste
Hydroelectric (small scale)	Agricultural/forestry waste
Tidal	**Geothermal**
Wave	
Wind	**Heat pumps**
Onshore	Water source
Offshore	Heat source

1.2 Why do we need Renewable Energy?

Ireland is heavily dependant on imported fossil fuels such as oil, gas and coal. Imported oil remains the single largest source of energy, and is a major source of green house gas emissions. Currently, we import 85% of the fuels we need for energy[1] which is well above the EU average. The development of an indigenous renewable industry is important for the following reasons:

[1] *SEAI Statistics Portal 1990-2014*, Sustainable Energy Authority of Ireland

- Security of supply – necessary to the functioning of society and the economy;
- Sustainability – it reduces reliance on imported fossil fuel and can be harvested without damaging the environment;
- Reduced CO_2 emissions – cleaner, less polluting energy sources ;
- Competitiveness – less exposure to volatile global energy prices;
- Investment and employment opportunities. Economic development in rural and under-developed areas;
- Compliance with EU & National binding renewable energy targets.

Ireland has a legally binding target for renewable energy as well as a national target for energy efficiency which must be met by 2020. The avenue for achieving these targets is set out in the National Renewable Energy Action Plan 2010 and the National Energy Efficiency Action Plan 2014. The NREAP 2010 sets out how Ireland intends to achieve the target of 16% renewable energy share of national energy consumption by 2020[2] in the following sectors:

Sector	Target for 2020
Electricity	40%
Heating & Cooling	12%
Transport	10%
Overall Target	**16%**
Source: National Renewable Energy Action Plan, 2010	

The EU 2030 Framework for Climate and Energy has defined further EU wide targets including at least 27% renewable energy share. This target is binding at EU level and will have to be incorporated into energy policy in Ireland.

To achieve these European and national targets, the delivery of renewable energy infrastructure and the production of renewable energy infrastructure will have to undergo a substantial transformation at the national level and also at the county level.

[2] *National Renewable Energy Action Plan, 2010*, DCENR

Failure to meet these targets will result in monetary fines for Ireland post 2020.

Renewable Energy in Ireland - at a glance
• Renewable energy contributed 7.8% of gross final energy consumption, almost halfway towards Ireland's legally binding 2020 target.
• Renewable electricity accounted for 58% of renewable energy, renewable heat 30% and renewable transport fuels 12%.
• The vast majority of renewable energy came from wind (47%) and bioenergy (42%) with the remainder from hydro, geothermal and solar. *(Source: Renewable Energy in Ireland 2013 SEAI 2015)*

1.3 Why prepare a Renewable Energy Strategy?

As the technology for generating renewable energy continues to improve, so too does the need for clear planning policy and objectives that are sufficiently robust, and to ensure that a consistent approach to the planning and development of renewable energy is employed at local authority level.

This Renewable Energy Strategy has been developed as a planning framework to support and underpin the Core Strategy and policies and objectives of the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011-2017 and Dungarvan Town Plan 2012-2018. This Renewable Energy Strategy aims to ensure that Waterford is at the forefront of renewable energy production whilst equally promoting energy efficiency and conservation in all sectors of the economy.

Waterford has the potential to maximise energy generation by renewable means, which will contribute to a reduction of energy imports, address security of supply issues, provide a secure, indigenous source of energy whilst also keeping wealth within the local economy. Its coastal location coupled with a strong wind resource, good solar irradiation and a significant grid network present opportunities to maximise energy generation by renewable means. County Waterford is also ideally

placed to maximise the potential of bio-energy. There is a strong forestry resource combined with heat demand centres at inter alia Dungarvan and Lismore, which could provide a viable opportunity for combined heat and power technology in particular.

Vision of Renewable Energy Strategy

To provide a strategy to maximise Waterford's renewable energy potential and its transition to becoming a more energy secure, low carbon county in line with national energy targets whilst balancing the need to protect the environmental, social and heritage assets of the city and county.

1.4 Strategic Aims of the Renewable Energy Strategy

- To ensure that between now and 2030, there is a steady, progressive and measurable increase in the amount of renewable energy used in the electricity, heat and transport sectors in Waterford, commensurate with the achievement of the national target.
- To identify opportunities for various renewable energy technologies and resources appropriate to Waterford.
- To maximise the opportunities for renewable energy development whilst safeguarding the environment and other amenities, subject to Strategic Environmental Assessment and Habitats Directive Assessment requirements.

1.5 Public Consultation

Consultation with stakeholders formed a key part of the preparation of this Renewable Energy Strategy. Pre-draft consultation took place in March 2016 and statutory public consultation was undertaken in June 2016, with the general public and key stakeholders associated with energy. Written submissions were invited and all submissions were summarised and considered during the preparation of the Renewable Energy Strategy.

A Renewable Energy sub-committee comprising members of the Planning SPC was established, ensuring elected members and community groups were fully informed and involved in the content and policy formulation of this Renewable Energy Strategy.

2.0 Legislative & Policy Context

The context for this Renewable Energy Strategy is set in a hierarchy of international and national legislation and policy, which provides the statutory basis for the preparation of plans and strategies for the protection of the environment. The following list is not exhaustive but highlights the main legislation and publications which have informed this RES.

2.1 International Context

Kyoto Protocol

The Kyoto Protocol 1997 is an international climate change agreement which sets legally binding targets for industrialised countries including Ireland to reduce greenhouse gas emissions. Increasing the use of renewable energy is therefore a key strategy for reducing greenhouse gas emissions and meeting Ireland's Kyoto commitments.

Paris Climate Change Agreement (COP21)

The Paris Agreement is the first ever global, legally binding climate change accord which seeks to tackle climate change by limiting global warming to well below 2 degrees celcius.

2.2 European Context

Directive 2009/28/EC – Promotion of the Use of Energy from Renewable Sources

Renewable energy policy in Ireland is guided by European Union requirements. This Directive establishes that 20% of energy consumption in the EU is to come from renewable sources by 2020. The Directive's specific target for Ireland is that 16% of Ireland's energy consumption will be from renewable sources by 2020 across the transport, heat and electricity sectors. The Directive also required that member states prepare a National Renewable Energy Plan (NREAP) by June 2010.

EU 20-20-20 Agreement aims to ensure that the EU meets ambitious climate and energy targets up to 2020. The 20-20-20 target sets three key objectives:

- 20% greenhouse gas reduction from 1990 levels;
- 20% of all energy to come from renewable energy sources;
- 20% improvement in energy efficiency.

The EU 2030 Framework for Climate and Energy marks a further development of EU renewable energy policy. The Framework was adopted by EU leaders in October 2014 and sets a 40% green house gas (GHG) reduction on 1990 GHG levels, and an EU-wide target of 27% for renewable energy and energy savings by 2030.

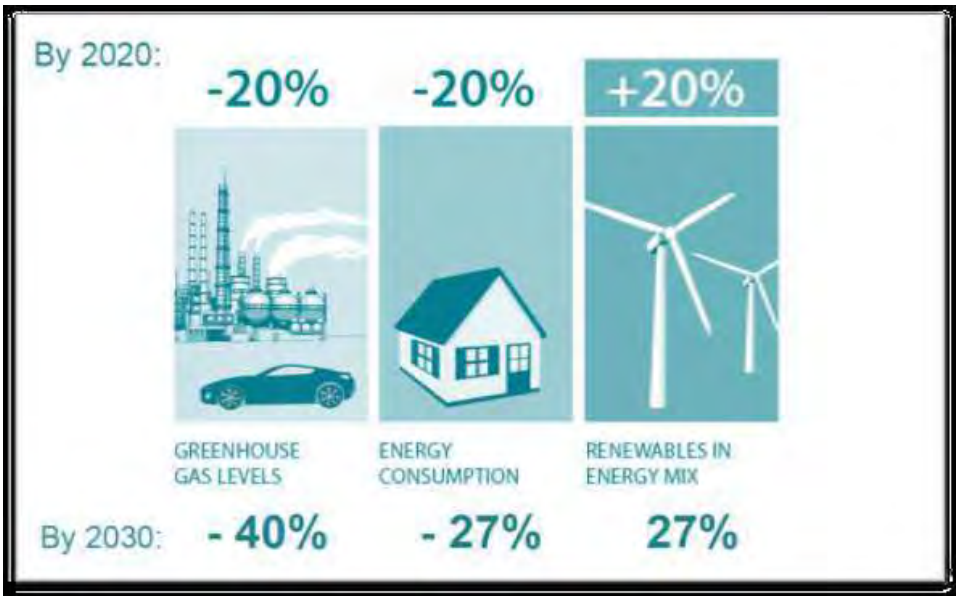

FIGURE 3: EU 2020 AND 2030 TARGETS FOR GHG, ENERGY CONSUMPTION AND RENEWABLE ENERGY (SEAI)

2.3 National Context

White Paper – Ireland's Transition to a Low Carbon Energy Future 2015-2030

The White Paper sets out Ireland's overall energy policy at a strategic level up to 2030. In the White Paper, strong emphasis is placed on the further development of the renewable energy sector.

National Renewable Energy Action Plan 2010-2020 DCENR 2010

The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's national target of 16% renewable energy under Directive 2009/28/EC. This action plan will be subject to several 'progress reports', the latest of which was submitted in 2014.

National Energy Efficiency Action Plan 2013-2020

The NEEAP aims to secure a 20% increase in energy efficiency by 2020. From a renewable energy perspective, energy efficiency is a key issue to be addressed in maximising the impact of renewable energy. Targets include:

- Reducing public sector energy consumption by 33%;
- Provison of grants for homeowners to increase energy efficiency.

The implementation of measures under the NREAP and the NEEAP are equally important in meeting Ireland's energy target obligations.

The Climate Action and Low Carbon Development Act 2015

This Act, Ireland's first-ever dedicated climate change legislation, provides for the making of:

- Five-yearly National Mitigation Plans to specify the policy measures required to reduce greenhouse gas emissions;
- A National Adaptation Framework to specify measures required in different sectors and by local authorities to mitigate against the negative effects of climate change.

Offshore Renewable Energy Development Plan 2014

The prospects for wave and tidal energy are good in the longer term, when the technology has been sufficiently developed. The OREDP envisages that energy from wave and tidal resources is unlikely to be available in significant quantity until after 2030, due to the current state of technological development.

Planning and Development Act (as amended)

The Planning and Development Act (as amended) in conjunction with the Planning and Development Regulations (as amended) include planning exemptions for specified micro-renewable energy technologies for domestic, industrial, commercial and agriculture developments. Also, it is a mandatory requirement to consider the effects of climate change through policies and strategies within a plan or incorporated as part of a development plan.

2.4 Regional Context

South East Regional Planning Guidelines 2010-2022

The South East Regional Planning Guidelines recognises that the region has substantial renewable energy resource potential. Section 6.3.3 provides for the development of a Climate Change Action Plan in partnership with the local authorities, local energy agencies and other stakeholders.

South-East Regional Authority Bio-Energy Implementation Plan 2013-2020

The Bio-Energy Implementation Plan for the South-East identifies the bio-energy resources for the region and opportunities for their development. It is a target of the Plan that 17% of total energy supply will come from biomass by 2020. The Plan supports the investigation of the potential of using wheat, barley and sugar beet for biofuel.

2.5 County Context

Waterford County Development Plan 2011-2017 & Waterford City Development Plan 2012-2018

The Waterford CDP contains a number of objectives regarding renewable energy and micro-renewables. The City Plan recognises that Waterford can be Ireland's Lead City in Sustainable Energy Technologies. Both plans acknowledge the role bio-energy can play in renewable energy production.

A Climate Change Strategy, which seeks to progress sustainable energy projects, was developed by the former City and County Councils in 2011 and 2007 respectively.

Local Economic and Community Development Plan 2015

This Plan has identified growth potential in the Green Enterprise sector which it is envisaged will bring economic diversification opportunity to Waterford and which could link in with Waterford Institute of Technology's Innovation Research Centre. It is a strategic objective of the LECP to:

- To facilitate appropriate renewable energy infrastructure and promote the use of renewable energy among business.

3.0 Energy Profile of Waterford City and County

The Council recognises its role in fulfilling the renewable energy commitments made at national level. The Council has identified its strategic aims for renewable energy in the Waterford County Development Plan, Waterford City Development Plan and Dungarvan Town Development Plan. The Waterford Energy Bureau (WEB) is also a key player in the roll out and development of renewable energy in the city and county.

3.1 Covenant of Mayors

As one means of addressing national energy targets, Waterford County Council signed up to the Covenant of Mayors in 2011. The Covenant of Mayors is a European movement involving local and regional authorities, voluntarily committing to increasing energy efficiency and use of renewable energy sources within their jurisdiction areas. By signing up to this Covenant, it is an aim of the Council to meet and exceed the European Union 20% CO_2 reduction by 2020, through the implementation of a Sustainable Energy Action Plan (SEAP) and the development of this Renewable Energy Strategy.

3.2 Waterford Energy Balance

The Waterford Energy Bureau has developed an Energy Balance for Waterford, which assesses current and future energy demand up to 2020 and 2030. Energy consumption has been broken up into three energy categories comprising electrical, heat and transport energy. Energy consumption is also represented within five sectors including residential, industry, services, agriculture and transport.

The following tables provide an overview of the County's energy needs and set out projections[3] up to 2030[4]. These projections are predicated on the continued development and investment into energy efficiency and renewable energy sources. Total energy usage in County Waterford is predicted as linear, with only the proportions of the energy demand from renewable or non-renewable sources varying. Overall the expectation is for a reduction in demand for non-renewable energy sources, such as coal, oil and gas, and an increased demand for electricity from all sectors, leading to cleaner, more sustainable energy usage across the county. Since 2008, energy demand in Waterford has reduced annually as a consequence of the economic downturn. Modest economic growth forecasts point towards an increase in energy consumption, nearing 2010 levels by c. 2023[5] - See Table 3.1.

3.2 Energy Demand by Sector

Currently the largest energy demand in Waterford is from the Transport sector, comprising of public transport, private, & commercial vehicles; it is in this sector where investment in clean and efficient renewable energy is projected to have the greatest impact. However, it must be acknowledged that the conversion of the transport sector to more efficient and renewable fuels will be difficult to achieve both at national and county level.

Although overall energy usage in Waterford is increasing, a decrease in energy usage from the Residential and Services sectors is expected, owing to general improvements in the energy efficiency of technology, and significant reductions in the energy usage of new and upgraded buildings.

[3] SEAI Energy Forecast for Ireland to 2020 (2011).
[4] Figures have assumed that the percentage changes in each sector will remain constant from 2020 to 2030.
[5] ibid

Waterford's energy demand by sector, 2010-2030

Sector	Energy (GWh)				
	2010	**2016**	**2020**	**2025**	**2030**
Residential	981	831	760	700	696
Industry	604	661	671	704	797
Services	501	389	374	366	388
Agriculture	71	86	88	94	109
Transport	1,132	1,102	1,178	1,318	1,592
Total	**3,289**	**3,068**	**3,070**	**3,183**	**3,582**

Table 3.1 **Waterford Energy Consumption by sector** **[Source: Waterford Energy Bureau]**

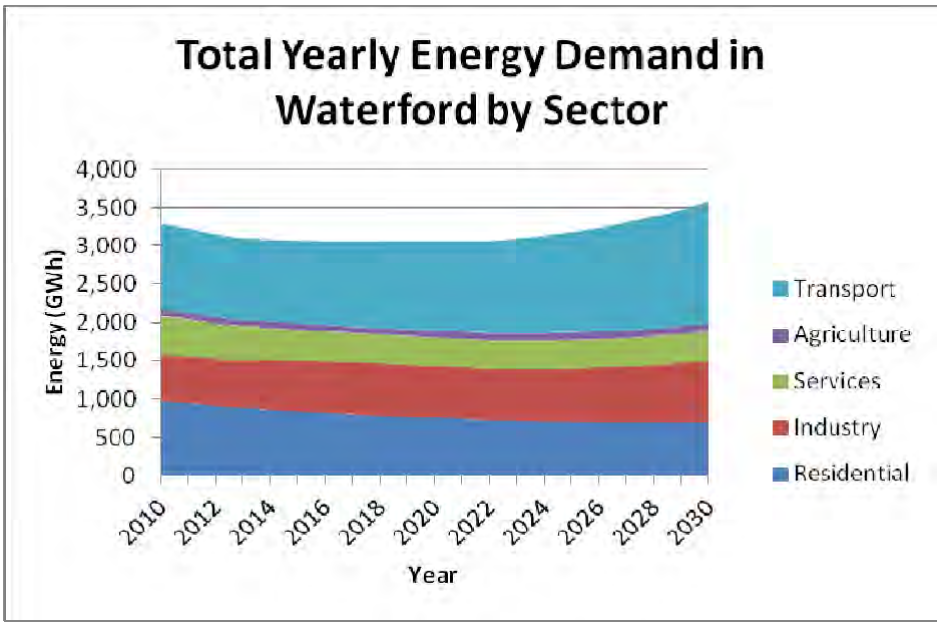

Figure 3.1 **Waterford Energy Demand by sector** **[Source: Waterford Energy Bureau]**

3.3 Energy Demand by Fuel type

Having considered future energy demands for Waterford, it is also necessary to assess the types of fuel that are used to meet these energy demands and to analyse future needs. Waterford is almost entirely dependent on imported oil for heat and transport. In this regard, it is very evident that oil represented the largest quantity of energy usage by fuel type in 2016, at just under 60% of Waterford's energy demand.

Fuel	Energy (GWh)				
	2010	**2016**	**2020**	**2025**	**2030**
Coal	104	55	35	21	12
Oil	1,894	1,658	1,594	1,398	1,386
Gas	474	451	389	330	273
Peat	76	67	57	31	16
Non-Renewable Waste	3	3	3	3	3
Renewable Heat Energy	93	179	250	280	343
Electricity	647	655	743	1,120	1,550
Total	3,289	3,068	3,070	3,183	3,582

Table 3.2 Waterford's energy demand by fuel type, 2010-2030 **[Source: Waterford Energy Bureau]**

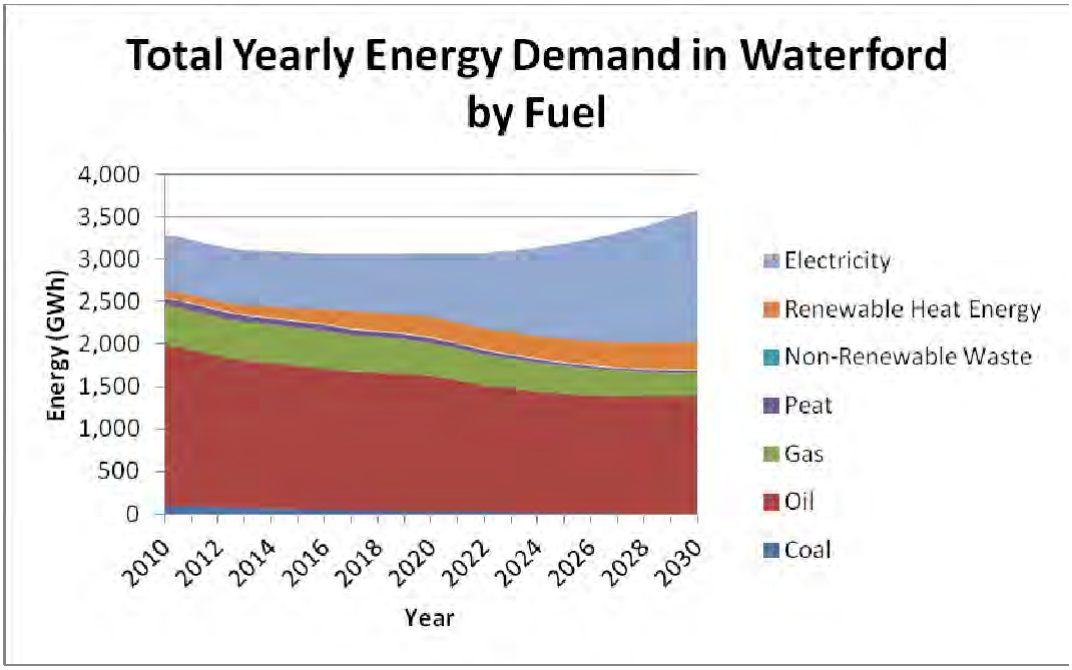

Figure 3.2 Waterford's energy demand by fuel type, 2010-2030 **[Source: Waterford Energy Bureau]**

Overall, as per Table 3.2, the energy expectation for Waterford up to 2030 is as follows:

- A reduction in demand for non-renewable energy sources, such as coal, oil and gas, and an increased demand for electricity from all sectors, leading to cleaner, more sustainable energy usage across the county.
- A significant increase in the demand for electricity is predicted resulting in a decrease in demand for fossil fuels. A major factor in this will be the Transport sector, as electric cars are developed and become more widespread, the oil usage contributed by the sector is projected to decrease.
- A significant reduction in the use of coal and peat for home heating is anticipated due to advances in home heating technology, improvements in home insulation and new laws restricting the burning of fossil fuels for home heating due to environmental and climate change obligations.
- The use of natural gas is predicted to remain steady for Waterford, Tramore and Kilmeaden with Corrib Gas field providing security of supply up to 2030.

3.4 Renewable Energy Production in Waterford

Waterford currently has renewable energy production both at macro and micro level. Wind energy constitutes the dominant renewable energy form in the county, in-keeping with national trends. However, there is potentially a considerable renewable energy resource within Waterford that has yet to be exploited.

The viability of the different RE technologies varies. Many of the innovative renewable energy technologies under development are expected to be commercially viable post 2020 (e.g. Solar with others presenting longer term potential (e.g. Wave). Each renewable energy technology has positive and negative characteristics with no quick fix technology that will exclusively meet Waterford's energy needs into the future. A sustained, supported renewable energy strategy will help Waterford / Ireland deliver on its renewable energy targets, reduce fossil fuel imports and related emissions and increase economic and employment opportunity.

Table 3.3, compiled by the Waterford Energy Bureau, sets out the renewable energy generation in Waterford in 2016 and makes projections for renewable energy generation in the city and county up to 2030. Table 3.3 illustrates a varied portfolio of renewable energy resources encompassing a broad range of technologies. The projections are based on current government energy policy as per the White Paper 2015 and CSO population projections. Given the research being undertaken in respect of off-shore wind and the increased emphasis on solar and ocean energy, this Strategy recognises that offshore, solar and ocean renewable technology could play a greater role in addressing Waterford's energy needs up to 2030.

The following sections of this RES provide more detail on the respective renewable technologies which offer potential in Waterford.

Renewable Energy Generated in Waterford in 2016 and projected to 2030				
Energy Source	**2016 Renewable Electricity Generation (MW)**	**% of Total Electricity (2016)**	**2030 Projected Renewable Electricity Generation (MW)**	**% of Total Electricity (2030)**
Electrical				
On Shore Wind	62.9	21.68%	131.7	17.01%
Off Shore Wind	0.0	0.00%	33.0	5.94%
Solar PV	0.0	0.00%	84.1	2.89%
Hydroelectricity	1.0	0.39%	3.1	0.77%
Biomass CHP	0.0	0.00%	5.0	2.06%
Gas Fired CHP	0.4	0.36%	2.6	0.87%
Biogas CHP	0.0	0.00%	2.2	1.12%
Ocean	0.0	0.00%	10.0	0.96%
Micro	0.2	0.03%	56.9	3.00%
Total	64.5	22.46%	328.6	34.64%
Energy Source	**2016 Renewable Heat Energy Generation (MW)**	**% of Total Heat Demand (2016)**	**2030 Projected Renewable Heat Energy Generation (MW)**	**% of Total Heat Demand (2030)**
Thermal (Heat)				
Commercial Biomass Boilers	4.3	0.59%	12.3	3.39%
Domestic Stoves, Gassification and Woodchip boilers	40.1	5.29%	23.3	3.35%
Commercial Heat Pumps	0.1	0.02%	12.6	1.83%
Energy Crop Boilers	0.8	0.17%	5.0	1.75%
Cereals, Straw	0.5	0.07%	5.5	1.01%
Biomass CHP	0.0	0.00%	10.0	4.66%
Gas Fired CHP	0.5	0.18%	4.6	1.68%
Biogas CHP	0.0	0.00%	4.0	1.32%
Domestic Micro Thermal, including heat pumps, solar water heating, micro CHP	6.4	0.98%	124.8	19.06%
Commercial Solar Water Heating	0.0	0.01%	0.3	0.04%
Total	52.6	7.30%	202.3	38.09%

Renewable Energy Use in Transport in Waterford, 2016 and 2030 Projection		
Sector	**% of 2016's Transport Demand**	**% of 2030's Projected Transport Demand**
Transport	6.36%	30.06%
Year	**% of Total Energy Demand**	
2016	**10.69%**	
2030 Projections	**32.74%**	
Note: These projections indicate that the EU 2030 target requiring 27% of our Total Energy Demand to be met by renewable sources will be surpassed.		
Note: These targets have been derived from national energy targets and CSO population figures which have been extrapolated for Waterford City & County up to 2030. They are indicative only and are not intended to limit the potential for renewable energy development in Waterford.		

Table 3.3 Renewable Energy Resource Projections for Waterford up to 2030 [Source: Waterford Energy Bureau]

4.0 Renewable Energy Technologies

4.1 Onshore Wind

To date, onshore wind energy has been the most significant source of renewable energy both at national and county level. Ireland has one of the most favourable climates for harnessing wind energy in Europe and this technology is the largest contributor to renewable electricity generation in the country[6]. However, if Ireland is to meet its national energy targets and avoid significant fines, the SEAI estimate that 250MW of wind is required to be deployed every year until 2020[7]. The average deployment of wind in the last few years has been 177MW per annum.

4.2 Onshore Wind Energy Development in Waterford

At the end of 2015, there were four operational wind farms in Waterford with a combined generation capacity of 63MW. Table 4.1 below illustrates the permitted and operational wind farms in the County.

[6] DCENR (2016) *Draft Renewable Electricity Policy & Development Framework – Draft Strategic Environmental Screening Assessment Report*
[7] SEAI (2016) *Ireland's Energy Targets Progress, Ambition & Impacts*

Wind Energy Projects in Waterford				
Wind Farm	Details	Grid Access Process (Gate)	Status	(MW)
Woodhouse	8 wind turbines of 112m tip heights	3	Operational	23.28
Ballycurreen	2 wind turbines of 120m tip height	3	Operational	4.99
Barranfaddock	11 wind turbines with 120m tip height	3	Operational	32.4
Beallough 1	2 wind turbines of 87m tip height	2	Operational	1.7
Flahavan, Kilgrange, Kilmacthomas	1 wind turbine of 82.5m tip height	Auto Producer	Operational	0.5
Aglish	To erect 12 wind turbines, tip height of approx. 126.5m and hub height 80m	3	Permission refused by WCCC. Currently on appeal.	34.00
Beallough 2	A third turbine to be added to the existing wind farm	4	Not built to date. planning permission granted.	0.85
Robertstown	5 Wind Turbines with 107m tip heights	TBC	Not built to date. Planning permission expires March 2021.	14.50
Walsh & Connors Ltd, Ballyogarty, Kilmacthomas	1 wind turbine of 92.5m tip height	TBC	Not built. Planning permission expires Nov. 2017	0.5
Ian Tierney, Ballinamult	1 wind turbine with 45m tip height	TBC	Not built to date. Planning permission expires Nov. 2017	0.15

Glaxo Smith Kline Dungarvan Ltd	1 wind turbine of 130.5m tip height	TBC	Not built to date. Planning permission expires	2.3
Total				**115.17**
Total – In operation			62.9MW	
Total permitted – Not constructed to date.			18.27MW	
Total - On appeal			34MW	

Table 4.1 Wind Energy in Waterford

In operation.

Not constructed to date.

On appeal to An Bord Pleanala.

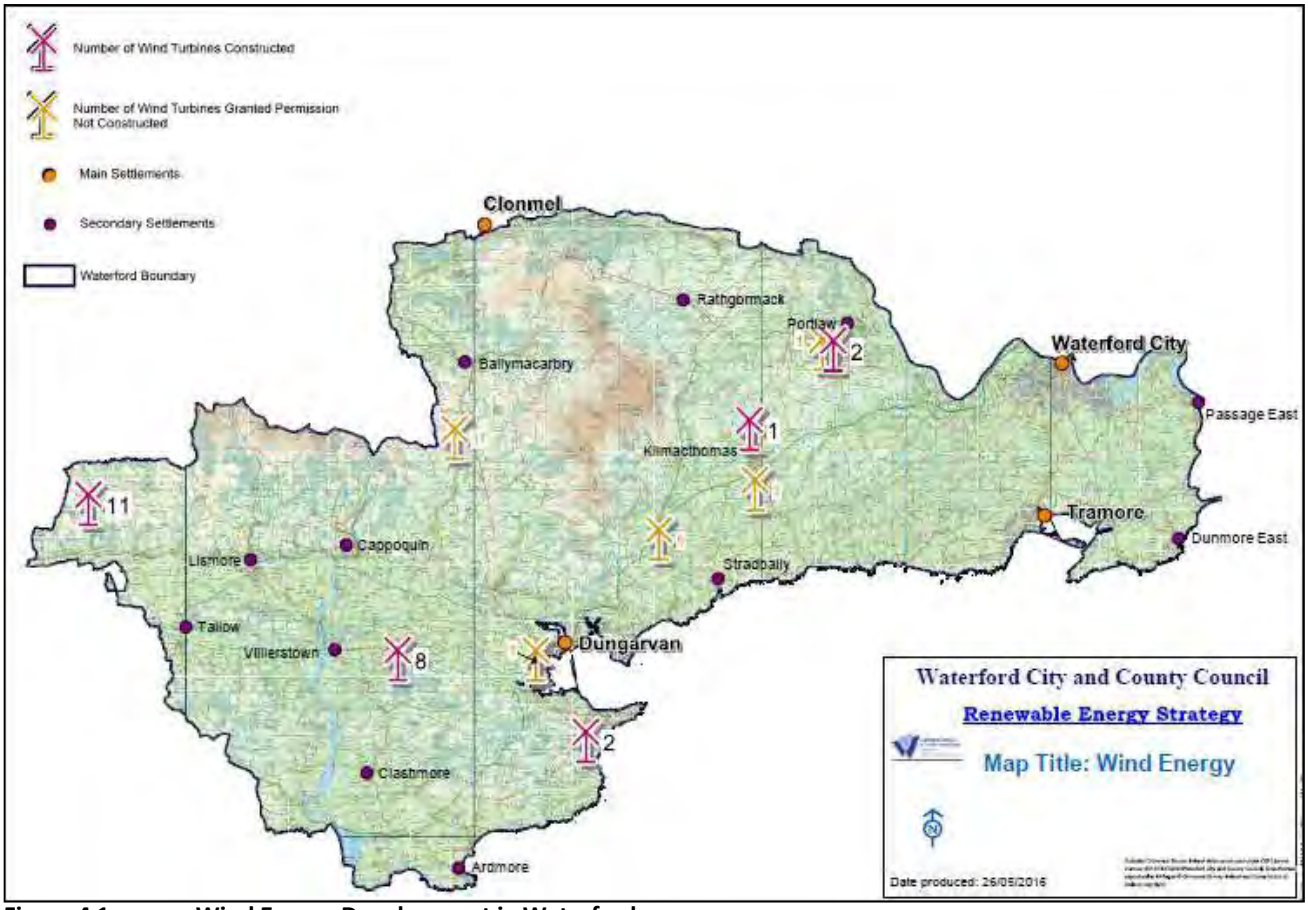

Figure 4.1 Wind Energy Development in Waterford

4.3 Current Waterford Onshore Wind Energy Policy 2011-2017

A Wind Energy Policy forms part of Waterford County Development Plan 2011-2017 and forms the basis for a plan led approach to wind energy development in Waterford. Please refer to Appendix 2 for details. The Wind Energy Strategy will be reviewed as part of the Waterford City & County Development Plan (post 2017).

The impact of onshore wind energy developments will vary depending on the location of the individual site together with the number of turbines, layout, size, design and colour.

Figure 4.1 below illustrates the onshore wind speeds for Ireland. Offshore wind is examined as part of Marine Renewable Energy in Section 8 of this Renewable Energy Strategy.

4.4 Advantages/Disadvantages of Onshore Wind Energy for Waterford

Advantages	Disadvantages
Good wind speeds	Height and mass issues
Good Grid connection	Landscape and visual impact
Advanced technology - Battery storage for excess electricity now available	Noise/shadow flicker
Efficient land cover compared to Solar	Cumulative effect of wind turbines on landscape.

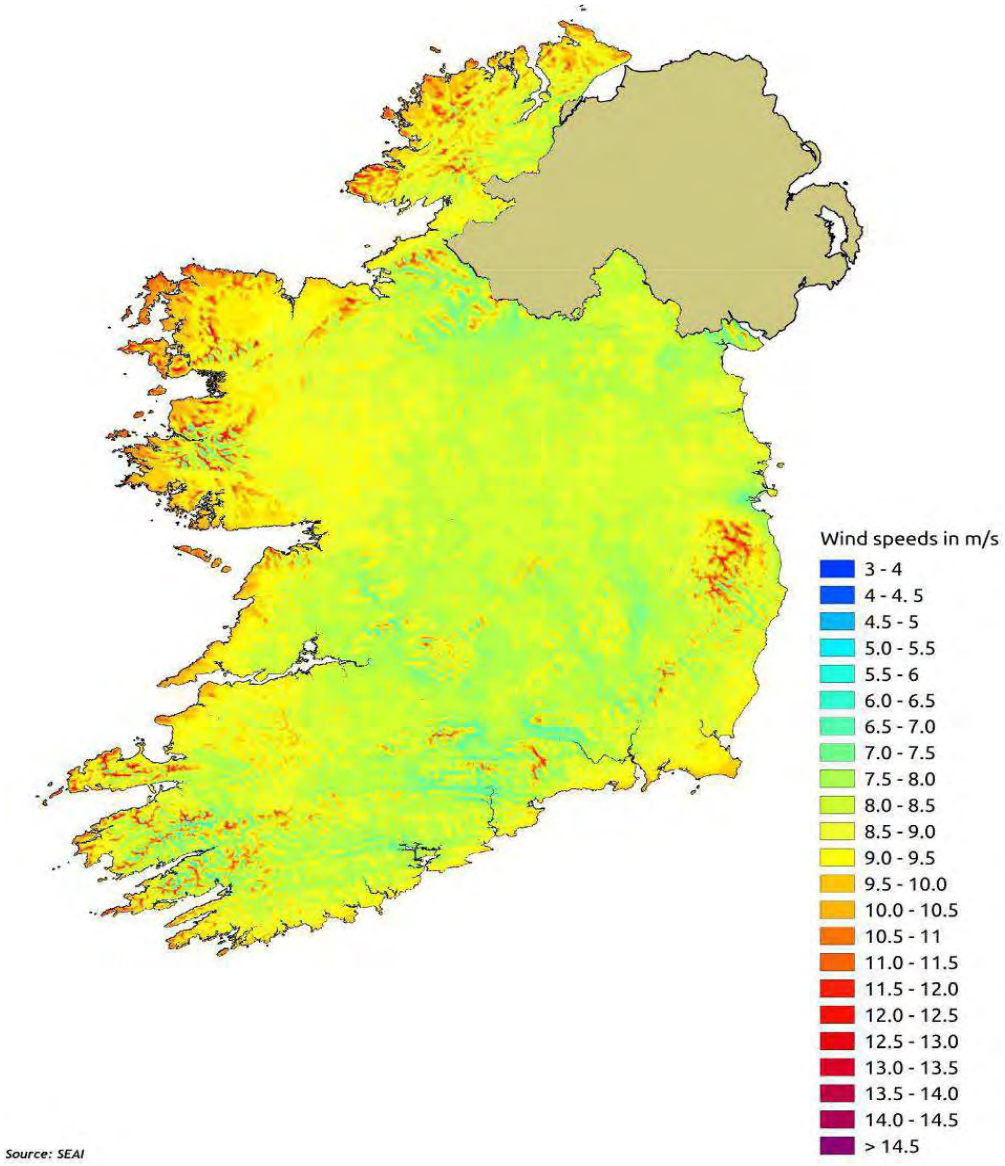

Figure 4.2 Onshore 100m wind speed **[Source: SEAI]**

5.0 Solar Energy

Solar energy is relatively well developed in Europe although it has yet to be established to any great extent in Ireland. However, as the cost of solar panels decreases and the efficiency of the technology improves, it is predicted that the development of solar energy will increase. A recent German report[8] has predicted that solar power will soon be the cheapest form of electricity generation for many parts of Europe.

5.1 Solar Farm Development in Waterford

Planning permission has recently been granted for a 5MW solar farm on a 10.7ha site in West Waterford (Pd 15/614 refers). This solar farm development equates to 2.14ha approximately of land area per MW output. Permission has also been granted for a 28.8ha solar farm in West Waterford, which is currently on appeal, Pd 16/126 refers. The Planning Authority is currently assessing an application for a 12.6ha solar farm south-east of Lismore, Pd 16/371. Permission has been granted for a 5MW solar farm in Pickardstown, Pd 15/770 refers. A planning application has recently been lodged for a solar farm in Kilmeaden, Pd 16/309 refers.

There are a number of pre-planning applications for solar farm development in Waterford which are currently in discussion.

5.2 Solar Potential in Waterford

Waterford is in the top 15% in terms of solar resource in Ireland[9] and therefore, subject to rigorous planning assessment, solar energy has good potential in Waterford. See Figure 5.1 below which illustrates the solar irradiation for Ireland.

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[8] Fraunhofer ISE (2015): *Current and Future Cost of Photovoltaics. Long-term Scenarios for Market Development, System Prices and LCOE of Utility-Scale PV Systems.* Study on behalf of Agora Energiewende.

[9] Šúri M., Huld T.A., Dunlop E.D. Ossenbrink H.A., 2007. Potential of solar electricity generation in the European Union member states and candidate countries.

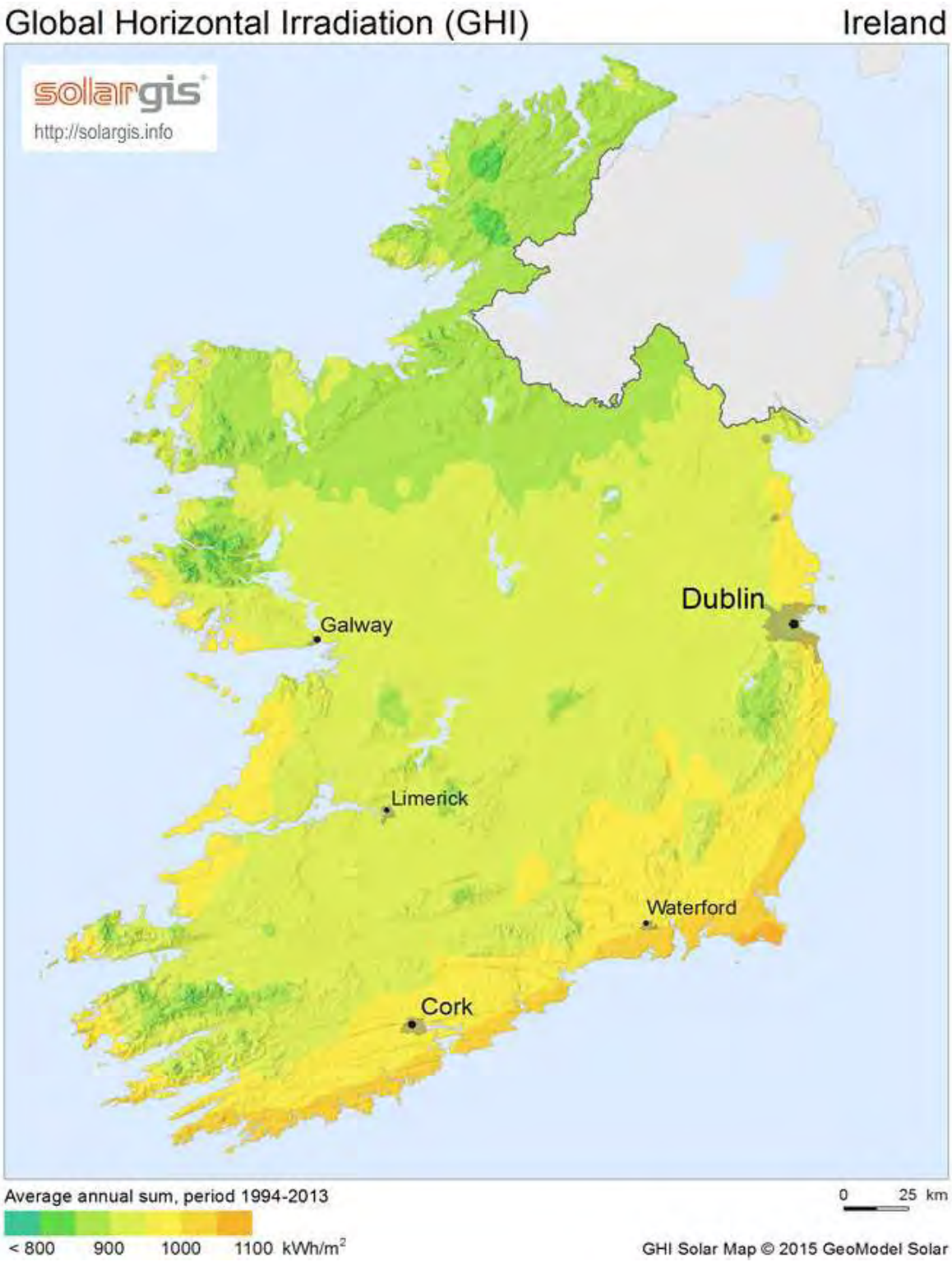

Figure 5.1 IRELAND ANNUAL AVERAGE SOLAR RADIATION (KWH/M2/DAY)

The NREAP sets a national target of 600mW of solar energy to be installed in Ireland by 2020. As a means of meeting this target, a Renewable Energy Feed in Tarriff[10] (REFIT) is expected to be introduced by the DCENR. This Renewable Energy Strategy has included a projection of 84.1MW of solar energy for Waterford up to 2030 – See Table 3.3. This would require a landmass of 168.2ha approximately.

5.3 Types of Solar Energy

Solar energy can be captured in two ways:

- Active solar techniques which include the use of photovoltaic panels and solar thermal panels to harness energy;
- Passive solar techniques including orientation of a building towards the sun.

This Strategy will examine the active types of solar energy extraction, i.e. thermal solar panels and photovoltaic.

5.3.1 Thermal Solar Panels

Thermal solar panels can be used in buildings for heating/hot water and can make a significant contribution to reducing energy costs. Solar panels, generally located on a south-facing roof, transform the sun's radiation into heat. The heat produced during the day is stored in a large hot water cylinder, so that it can be used at any time. The greater the demand for hot water, the more beneficial solar thermal will be, and the shorter the return on investment. The Greener Homes Scheme run by the SEAI aided the installation of approximately 500 solar systems for domestic purposes in County Waterford between May 2006 and May 2011. Market trends suggest that we will see increased use of solar energy installations in the form of solar panels for domestic and commercial purposes. The Waterford Energy Bureau

[10] The Renewable Energy Feed in Tariff (REFIT) schemes/supports are funded by the Public Service Obligation (PSO) which is paid for by all electricity consumers. The REFIT schemes have been designed to incentivise the development of renewable electricity generation in order to ensure Ireland meets its goal of 40% of electricity coming from renewable sources by 2020.

estimates that there are currently in excess of 1,000 domestic solar installations in Waterford.

5.3.2 Solar Photovoltaic

Solar photovoltaic (PV) energy refers to the process by which light from the sun can produce electricity for on-site use or for export of the grid. Solar PV is regarded as a supplementary technology that provides for predictable electricity generation, with limitations on generation being linked to seasonal solar output. There are two main types of solar PV: 1) Grid connected solar PV or 2) Stand alone Solar PV

1) Grid connected Solar PV

A grid-connected PV system is one which connects to the electricity grid and "exports" to the grid. The main advantage of using a grid-connected PV system is that the grid can be used as what is effectively an electricity storage system. In this regard, grid-connected PV systems do not need physical storage systems (batteries) and so the investment cost is reduced.

A “solar farm” is a large scale collection of grid connected solar PV panels used to generate electricity which is exported to the national grid via a substation.

There has recently been a significant decrease in the cost of solar PV panels and this technology should offer possibilities in Waterford up to 2030.

2) Stand alone Solar PV

Stand alone PV systems are not connected to the grid. Stand alone systems are set up so that the electricity produced by the PV system is used directly. In order to take full advantage of the electricity produced, it needs to be stored. For this reason, a standalone system will commonly include battery storage. Stand-alone PV systems are very useful where there is no electrical grid connection available and for applications such as street lighting, traffic signs etc.

5.4 Advantages/Disadvantages of Solar Energy for Waterford

Advantages	Disadvantages
Good solar radiation	Land take vis a vis energy output
Good Grid connection	Crop production v energy output
Possibility of battery storage for excess energy	Glint/Glare issues
Clean and silent to operate	Possible environmental/hydrological effects

6.0 Hydroelectric power

Hydroelectric power is power that is derived from the force or energy of moving water, which could be harnessed for the generation of electricity. The amount of electricity a hydroelectric site can generate is dependent on numerous factors including hydraulic head height (the height through which the water falls) and the flow speed of the water. The best sites are those which have large volumes of water all year round, with a large vertical drop in a short distance.

Hydroelectricity is a widely used form of renewable energy. It is considered to be a reliable and generally predictable and consistent source of renewable energy. Once a hydro-electric complex is constructed, the development produces no direct waste, and has a considerably lower output level of carbon dioxide than fossil fuel powered energy plants.

The NREAP envisages a 234MW output from hydro-electricity by 2020. This Renewable Energy Strategy has identified an energy target of 3.1MW from Hydropower in Waterford by 2030 – See Table 3.3.

6.1 Hydro Power in Waterford

There are a number of small-scale hydro sites currently operating in Waterford, most notably Mahon river hydro, located outside Mahon Bridge. This site is fed from two weirs, one on the Mahon and the other on the Mahon Óg, about 2 km upstream of the village. The scheme generates a maximum of 850 kW of electricity which is exported to the national grid.

6.2 Types of Hydroelectric Schemes

Hydroelectric schemes can be grouped into two broad catergories, i.e.:

- Pumped Hydro Electric Storage (PHES);
- Small scale micro-hydro electric scheme.

6.2.1 Pumped Hydroelectric Storage (PHES)

A PHES is a method of storing electrical energy as potential energy by pumping water from a reservoir or lake to another reservoir at a higher elevation and storing it for use in generating electricity when required. Pumped Hydro Electric Storage are ideally suited to providing back up to the electrical grid during times of peak / varying demand. The responsive time of pumped storage is quick and the output generated is constant relative to the storage capacity. Turlough Hill in County Wicklow with a storage capacity of 292 MW operates as a pumped hydro electric storage facility and contributes to the balancing of electrical grid demand in the Dublin region. A PHES storage facility is unlikely to proceed in Waterford by 2030.

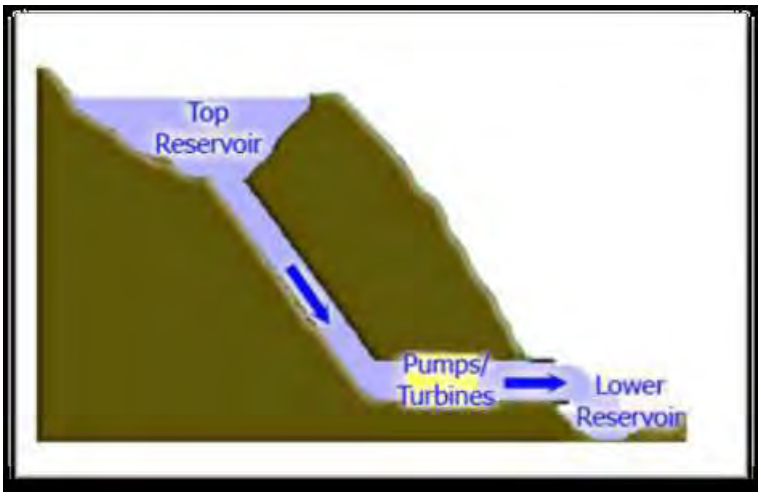

Figure 6.1 Illustration of the operation of a pumped storage hydro system

6.2.2 Small-scale Hydroelectric Scheme

Small-scale Hydro refers to hydroelectric plants, typically ranging from 5KW to .5MW. Small scale hydro requires much lower capital investment and is less dependent on location as water can be piped between locations to create the desired head height & flow rates. The geographic features of Waterford are suited to the application of micro hydro sites on a limited basis. The steep courses of many smaller rivers/streams through the Comeragh and Knockmealdown mountains lead to excellent head heights and flow rates which are ideal for small-scale hydro installations. Additionally, the electrical distribution system can be accessed through

the foothills of the mountains, allowing for many potential sites to be readily connected to the existing infrastructure.

6.3 Hydroelectric Potential in Waterford

Due to its upland areas and fast flowing streams and rivers there is potentially an unexploited hydroelectricity resource available in Waterford, particularly in terms of micro-hydro electricity. The RES has identified two types of micro hydro-schemes which are likely to progress in Waterford in the future;:

1. Hydroelectric schemes at old mill sites that can be retrofitted with hydroelectric turbines, providing a new function for these obsolete buildings. Refurbishment/rehabilitation of these mills offers possible potential for commercial development and may be more economically attractive than the development of greenfield sites. In many cases the characteristics of old water mills are favourable to hydro-electric scheme development with a good water head height and favourable water flow rates. One of the pillars of Waterford's industrial wealth during the late 18th/19th Century could be attributed to use of hydro power from interalia the Clodiagh, the Bride and the Mahon Rivers. In many cases, the buildings and mill races still exist and subject to more detailed assessment, offer potential for harnessing hydro electric power.

2. New hydroelectric schemes at green field sites that have the necessary favourable characteristics and can be fed by streams and river water sources.

6.4 Advantages/Disadvantages of Hydroelectric power for Waterford

Advantages	Disadvantages
• Low operating costs.	• Can have environmental impact such as disruption of fish life/ecological systems
• Technology can be used as an energy storage mechanism.	• Significant water flow and volume required to generate electricity.
• Energy output can be easily managed according to demand.	• Possible environmental/hydrological effects. Can affect surface water hydrology due to over abstraction resulting in damage to fish stocks or water flow.
• Proven technology and long life cycle	• Risk to biodiversity.

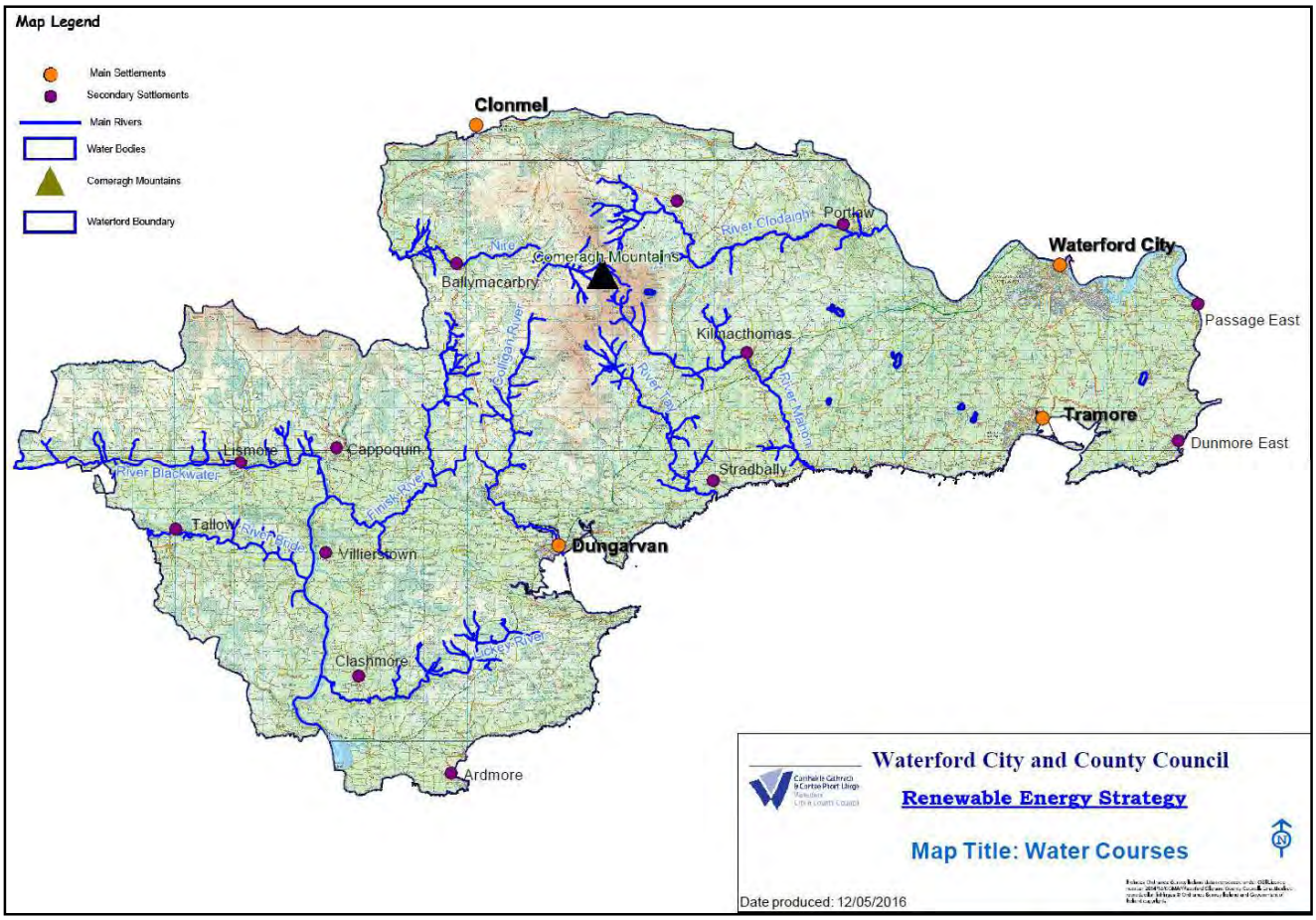

Figure 6.2 Watercourses in Waterford

7.0 Bioenergy

Bio-energy can be defined as the energy derived from biomass. The three main categories of bio-energy are biomass, bioliquids and biofuels.

Biomass is formed by the biodegradable fraction of products, waste and residues from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture. As well as the biodegradable fraction of industrial and municipal waste, it also includes energy crops such as oilseed rape and willow etc.

Bioenergy is likely to play a significant role in the growth of the renewable energy sector, particularly in the areas of heat and transport, stimulating local economic activity[11]. The Bio-Energy Implementation Plan for the South-East identifies the bio-energy resources for the region and opportunities for their development. It is a target of the Plan that 17% of total energy supply in the south-east will come from biomass by 2020[12].

Bio-energy technologies have the potential to contribute towards renewable energy targets for heat, electricity and transport in the domestic, commercial and industrial sectors. This Renewable Energy Strategy has identified an energy target of 202MW from Bioenergy for Waterford by 2030 – See Table 3.3.

Examples of bio-energy technologies include:

- Wood log stoves and boilers;
- Wood log gasification boilers;
- Woodchip/pellet boilers;
- Combined heat and power (CHP) plants;
- Anaerobic Digestion Plants.

[11] National Renewable Energy Action Plan (NREAP) and the Strategy for Renewable Energy 2012 – 2020.
[12] South-East Regional Authority – South-East Bio-Energy Implementation Plan 2013-2020

7.1 Bio-energy Development in Waterford

There are a number of bio-energy developments in Waterford. One of the larger scale developments relates to GlaxoSmithKline industrial plant in Dungarvan. Currently, a woodchip boiler is being constructed on site which will be fired from local forestry thinnings [192 tonnes of woodchip will be required per week]. It will have a capacity of 4MW and is expected to produce 6.1 tonnes of steam per hour. This installation will largely replace the current oil boilers being used and will assist GlaxoSmithKline to diversify its energy supply, reduce energy costs and thereby improve its competitiveness.

7.2 Bioenergy Potential in Waterford

7.2.1 Wood energy

The utilisation of forestry has the highest potential growth for biomass production in Waterford. Currently 29,316ha approximately of land in the county is devoted to forestry which equates to nearly 16% land cover. The majority of the resource is located in the north and west of the county, centred close to Clonmel and Lismore/Dungarvan respectively (See Figure 7.1 below).

County	Total (ha)	Private (ha)	Public (ha)	Total land area of county (ha)	% of County Planted
Waterford	**29,316.67**	**10,623.23**	**18,693.44**	**183,786**	**15.95%**
Cork	90,837.05	41,991.83	48,845.22	745,988	12.18%
Kilkenny	20,867.73	10,765.71	10,102.02	206,167	10.12%
Tipperary	51,433.04	23,012.79	28,420.25	425,458	12.09%
Wexford	16,390.55	7,755.01	8,635.54	235,143	6.97%

Table 7.1 Forestry Cover by County [Source: Forest Service 2012 Annual Report]

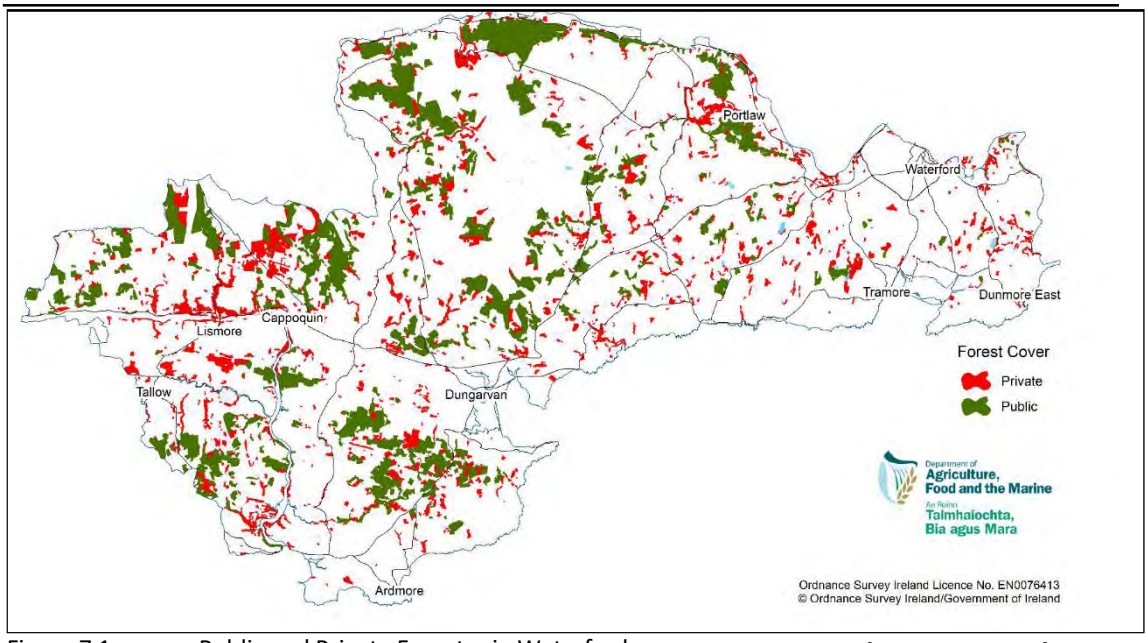

Figure 7.1 Public and Private Forestry in Waterford [Source: Teagasc]

Forestry resources such as clear felling, clear felling logging residues and shredding, forestry stump wood, forestry thinnings, and residues from forestry thinnings all can be utilised where feasible for the generation of heat and electricity in a range of suitable processes. At present, only 18% of the forestry thinnings generated in Waterford are utilised, largely at the two wood processing plants in the south-east, namely in Clonmel and Waterford Port.

This RES recognises that an increase of the forestry biomass resource can be achieved in a very short time frame without the need for any increase in overall plantations by setting up an alternative market for this resource. By harvesting the existing thinning resource and utilisation of the forestry waste products available, many new jobs could be created in this industry by simply managing the resources available in a more efficient manner. Waterford Forestry Owners Group was formed by TEGASC in 2011 as a means of managing the forestry resource in Waterford which is increasing year on year, requiring additional end markets to maximise this forestry potential.

Factors which will influence the decision to carry out thinning of woodland include the provision of access to the plantations from the public road. In County Waterford,

this will require a more targeted approach to identify the location of access routes, in consultation with the relevant forestry bodies such as Waterford Forestry Owners Group to ensure that forestry plantations are accessible.

With transport costs being a critical viability factor in the biomass industry, Waterford could develop sustainable supply/demand clusters for wood biomass close to main centres of population, thereby securing viable route to market. International best practice highlights that biomass used for energy purposes should be grown within **100 KM** of where it is used. The following table illustrates the forestry biomass potential upto 2030:

Waterford's Forestry Resource		2020 Resource		2030 Resource	
Crop type	Land Area (Hectares)	% of Resource Available for Heat/Electricity	Annual Resource Available for Heat/Electricity (GWh)	% of Resource Available for Heat/Electricity	Annual Resource Available for Heat/Electricity (GWh)
Forestry (public)					
Clear-felling	2,453	2.00%	31.28	2.00%	31.28
Clear-felling logging residues, bundling and shredding	2,453	0.00%	0.00	50.00%	354.52
Forestry Stump Wood Extraction	2,453	0.00%	0.00	20.00%	166.83
Forestry Tinnings	5,643	18.00%	120.87	50.00%	335.75
Forestry Residues from Thinnings	5,643	0.00%	0.00	20.00%	95.93
Total	**18,646**		**152.15**		**984.31**
Forestry (private)					
Clear-felling	1,348	2.00%	17.18	2.00%	17.18
Clear-felling logging residues, bundling and shredding	1,348	0.00%	0.00	50.00%	194.71
Forestry Stump Wood Extraction	1,348	0.00%	0.00	20.00%	91.63
Forestry Thinnings	3,099	18.00%	66.39	50.00%	184.41
Forestry Residues for Thinnings	3,099	0.00%	0.00	20.00%	52.69
Total	**10,241**		**83.57**		**540.62**

Table 7.2 Forestry Biomass potential in Waterford up to 2030 [Source: Waterford Energy Bureau]

7.2.2 Energy crops

The growth of energy crops such as oilseed rape, miscanthus and willow has had limited uptake in County Waterford.

When crops are grown for biomass purposes many factors must be considered, such as availability of land and the profitability of the crop, as many crops, such as oilseed rape or mischanthus utilise farmland which would otherwise have been designated for food production. Some crops, such as Willow can be cultivated on marginal lands

which would not otherwise be suitable for agriculture, but the availability of such sites is limited.

In the medium term from 2016 to 2030, this Strategy recognises that energy crops will have a limited contribution to make in the provision of energy in the form of heat and electrical generation and will only become viable with more favourable market conditions.

7.2.3 Solid Biomass Combined Heat & Power

Combined Heat & Power can be powered by a number of resources, namely solid biomass, natural gas and biogas.

Solid biomass CHP installation powered by forestry and energy crops has significant potential for replication in Waterford where thermal energy in the form of steam or conventional heating can be used to heat buildings / processes. The electricity generated on site can be exported to the national grid or can be used for an industrial process. Each CHP plant provides heat and electricity on site in a single process using waste timber and forestry thinnings as the main feed source.

The use of forest-based biomass can improve the overall energy efficiency of industrial landuses. For example, Aurivo Milk Processing Plant in Ballaghaderreen, Co. Roscommon installed a biomass CHP plant in 2014 using forest based biomass. This has improved the overall energy efficiency of the plant and is a template that could be replicated at a number of locations in Waterford on a smaller scale.

The most advantageous locations for biomass CHP are:

- Areas not linked to the national gas grid, e.g. Dungarvan, Lismore;
- Locations with high annual thermal energy demand, e.g. industrial estates, hospitals;
- Locations where biomass resource is readily available to be utilized, e.g. West Waterford.

There is potential within Waterford to develop a number of biomass CHP installations, which can be linked to district heating schemes (see Section 7.3). Large urban areas with industrial estates such as Dungarvan, Cappoquin are suited to biomass CHP as there is adequate space to accommodate such a facility and excess heat generated can be used to service adjoining industries or even hospitals. In the Nordic countries the presence of a biomass CHP plant is a beneficial piece of infrastructure that can be utilised to attract businesses and industry with the offer of the supply of a cheap source of heat and electricity. There is potential to replicate this model in Waterford.

7.2.4 Biogas (Anaerobic Digestion)

Anaerobic Digestion facilities are common throughout the European Union and have many environmental benefits. AD facilities use bacteria to convert organic material such as sewerage sludge, industrial / houses hold waste, agricultural wastes and energy crops such as maize into biogas. AD offers potential for the generation of electricity and heat through the burning of biogas in a localized CHP plant.

Case Study: Council operated AD facility at Kilbarry, Waterford

The Council are in the process of building an AD facility at Kilbarry, Waterford City with the main feed stock being organic brown bin collections, solid and liquid industrial waste. A CHP plant will form part of this facility with the heat generated from the CHP being used to heat the AD feed tanks and excess heat being used to dry wood chip. Electricity generated will be exported to the Grid. The CHP will operate approximately 8,000 hours per year and solid fertilizer will be produced as part of the process. The main feed stock to the AD facility will be organic brown bin waste, solid and liquid industrial waste.

There has been limited investment in AD facilities at a farm level in Waterford to date. However, Climate Change obligations and national energy targets could result in an increase of such facilities, as the burning of methane in an AD facility could significantly reduce greenhouse gas emissions from agriculture.

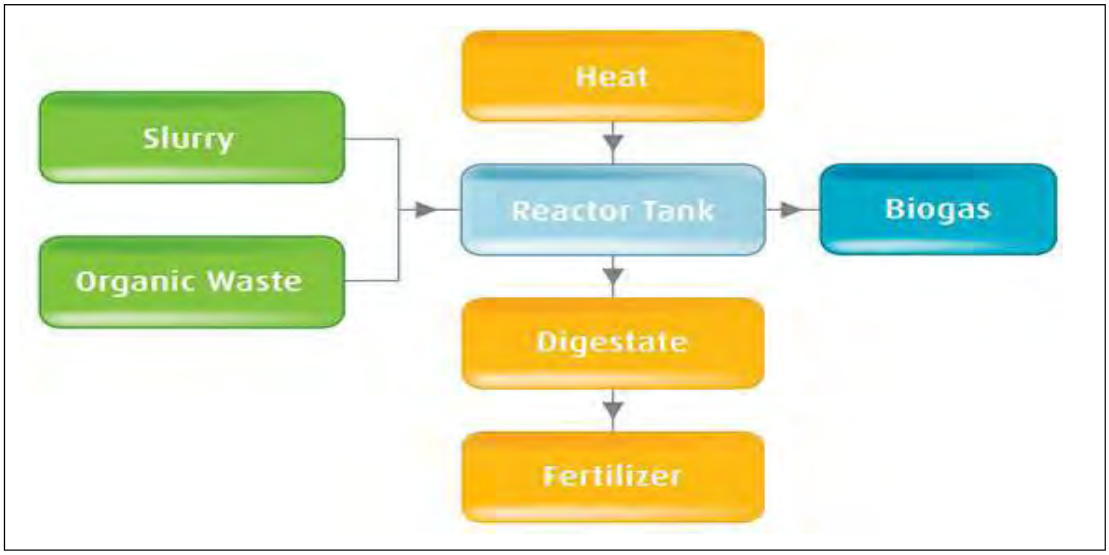

Figure 7.2 Anaerobic Digestion Diagram [Source:South-East Bio-Energy Implementation Plan 2013-2020]

7.2.4.1 Anaerobic Digestion Potential in Waterford

This Strategy considers that there are two types of AD facilities which have potential in Waterford in the future:

- Agricultural AD facility, whereby slurry is used as a feedstock for Anaerobic Digestion. Such an installation is likely to be farm based and is likely to progress where there is an abundant and constant supply of raw material (i.e. slurry) to feed the AD facility.

- Industrial AD facility, where the feed stock is likely to be a mixture of sewerage sludge, industrial / houses hold waste, agricultural wastes and energy crops such as maize. Such installations are likely to be based within an industrial estate or other strategic location.

7.3 District Heating Schemes

District heating (DH) schemes involve a network of heating distribution pipes in a local area which generate hot water / steam and service a range of buildings. The localised production and use of heat from renewable energy resources as set out in the NREAP is essential for Ireland to reach its overall legally binding target. District heating schemes can be based on a variety of technologies and renewable energy sources, such as combined heat and power (CHP), biomass energy, geothermal or energy from waste.

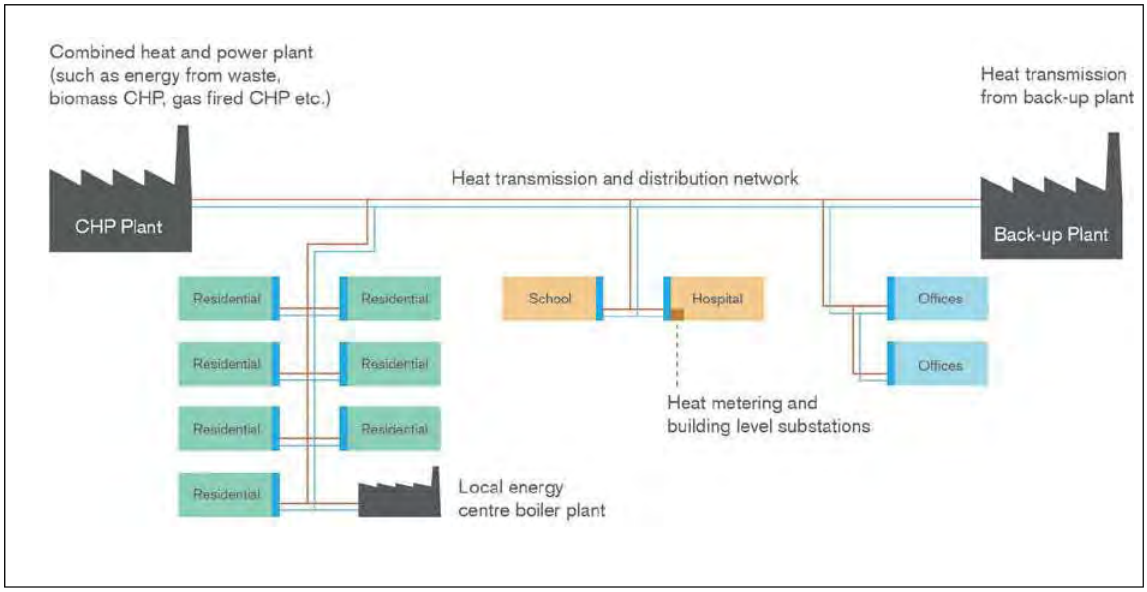

Figure 7.3 District Heating scheme example. (source: www.londonheatmap.org.uk)

7.3.1 District Heating in Waterford

A Biomass District Heating Feasibility study for Dungarvan was completed in 2009 and highlighted a number of suitable locations such as the IDA Industrial Estate, where DH schemes typically powered by locally grown forestry thinnings and miscanthus may be viable with funding.

7.3.2 District Heating Potential in Waterford

Biomass DH schemes in particular have potential for development in areas not linked to the natural gas network and where there is a substantial local resource available to be utilised. Urban areas with a range of local heat demands in excess of 4000 hours per year are best suited to this infrastructure, e.g. Dungarvan, Lismore, Cappoquin.

7.4 Advantages/Disadvantages of Bioenergy for Waterford

Advantages	Disadvantages
• Abundant and renewable – forestry resources close to centres of population in Waterford.	• Large amounts of land required to harvest energy crops to become viable.
• Can be used to burn waste products.	• Equipment installation is expensive.
• Can be integrated into existing infrastructure.	• Long term strategy required to ensure fuel supply.
• Employment opportunities.	• Significant investment required in biomass supply chain.
• Alternative market for product which might otherwise be unused.	• Limited to rural communities.

Table 7.3 Advantages/Disadvantages of Bioenergy for Waterford

8.0 Marine Renewable Energy

8.1 Introduction & background

Ocean energy refers to electrical energy extracted from waves and tidal movements. The term 'marine renewable energy' typically refers to wave, tidal *and* offshore wind.

The offshore energy resource off the coast of Waterford has the potential to offer a considerable source of renewable energy. The Ocean Renewable Energy Development Plan 2014[13] designates the Waterford coastline as part of Area 3 (South coast) – See Figure 8.1. Area 3 is stated as having the potential to generate up to 7,800MW of energy from offshore wind. The OREDP Plan did not cover tidal or wave energy as part of its assessment of the energy potential for the south coast as much of the focus to date for tidal, and wave energy in particular, has been concentrated off the west coast of Ireland where there are a number of test sites. However, that is not to say that wave and tidal energy would not have a role to play off the Waterford coast in the future. This Renewable Energy Strategy has set a target of 43MW energy output from marine renewable energy by 2030 – See Table 3.3.

Marine renewable energy as a whole is seen as a medium to long term technology which can contribute significantly to Ireland's renewable energy targets. It is anticipated that the government will continue to make funding available to assist in the development of this technology.

Development planning and, in particular, foreshore lease policies, are critical enabling factors for the development of offshore renewable energy. The Foreshore (Amendment) Bill in 2011 provides significant opportunity to local authorities for increased engagement in the creation of an efficient planning consent system for marine energy development. Waterford City & County Council has a role to play in this regard and can position itself to manage development of marine energy off the

[13] DCENR *Ocean Renewable Energy Development Plan A Framework for the Sustainable Development of Ireland's Offshore Renewable Energy Resource* February 2014

Waterford coast when the Bill is enacted (anticipated during the lifetime of this strategy).

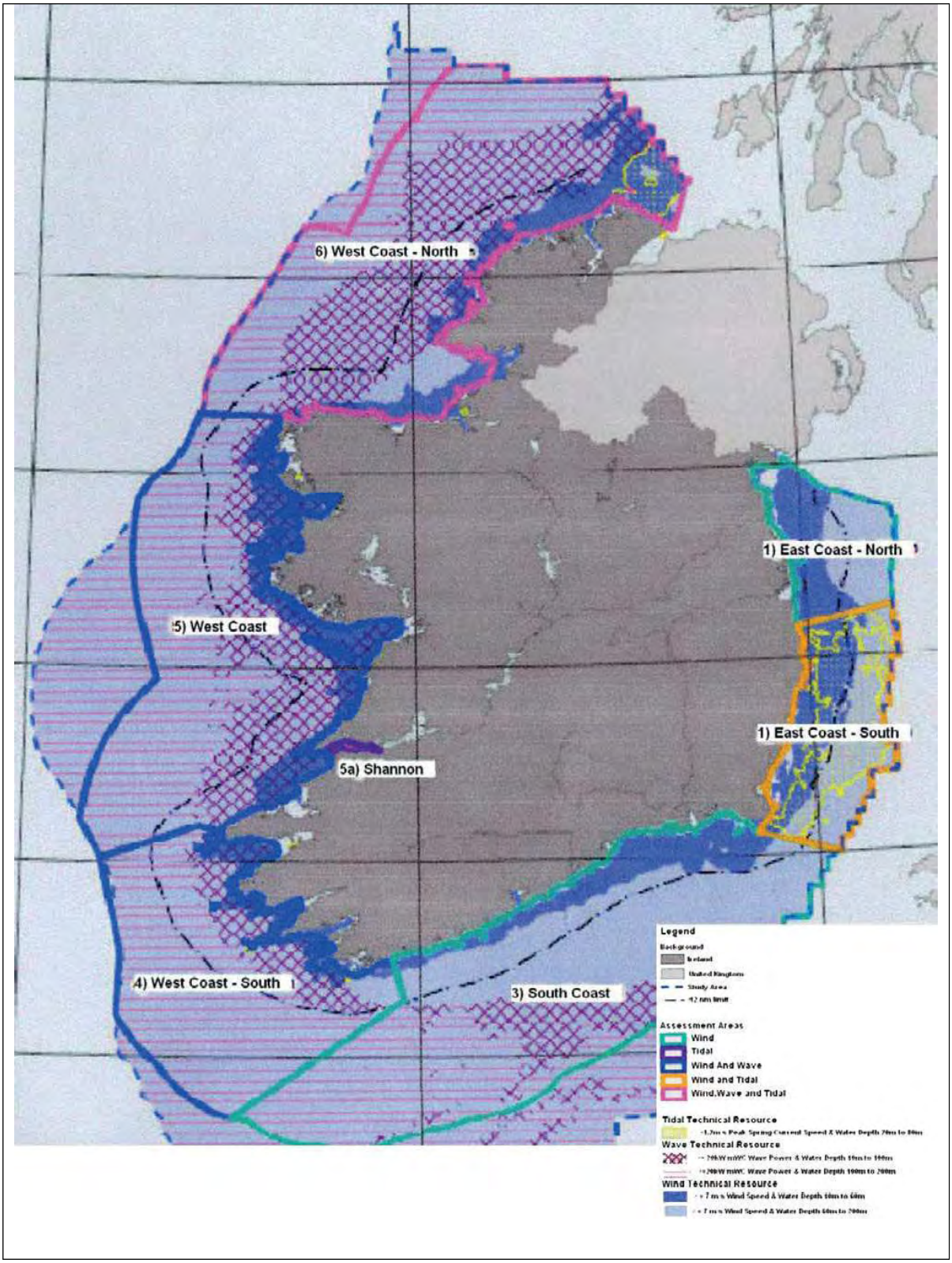

Figure 8.1 Marine Renewable Energy Indicative Development Zones **[Source: OREDP 2014]**

8.2 Offshore Wind

Offshore wind is the most technically advanced of the marine renewables although it is still largely at a development stage in Ireland. The only offshore wind farm constructed to date is the Arklow Bank Project off the East coast although there are a number of companies currently involved in the development of offshore wind energy projects in Ireland[14]. Offshore wind presents challenges in terms of construction costs, grid connection, development planning and visual/environmental impacts, requiring the input of a wide range of stakeholders.

8.2.1 Offshore Wind Potential in Waterford

The OREDP recognises the potential of fixed and floating wind turbine structures off the South Coast of Ireland, including Waterford. Fixed turbines (i.e. turbines constructed on the seabed) are typically suited to a seabed depth of up to 50m. Floating turbines are most suited thereafter – See Figure 8.2. In terms of seabed

[14] National Offshore Wind Energy Association of Ireland, http://www.nowireland.ie

depths along the Waterford coast, a depth of up to 50m would cover a distance of 8km approximately from the coastline. Figure 8.3 illustrates the seabed depths along the Waterford coast.

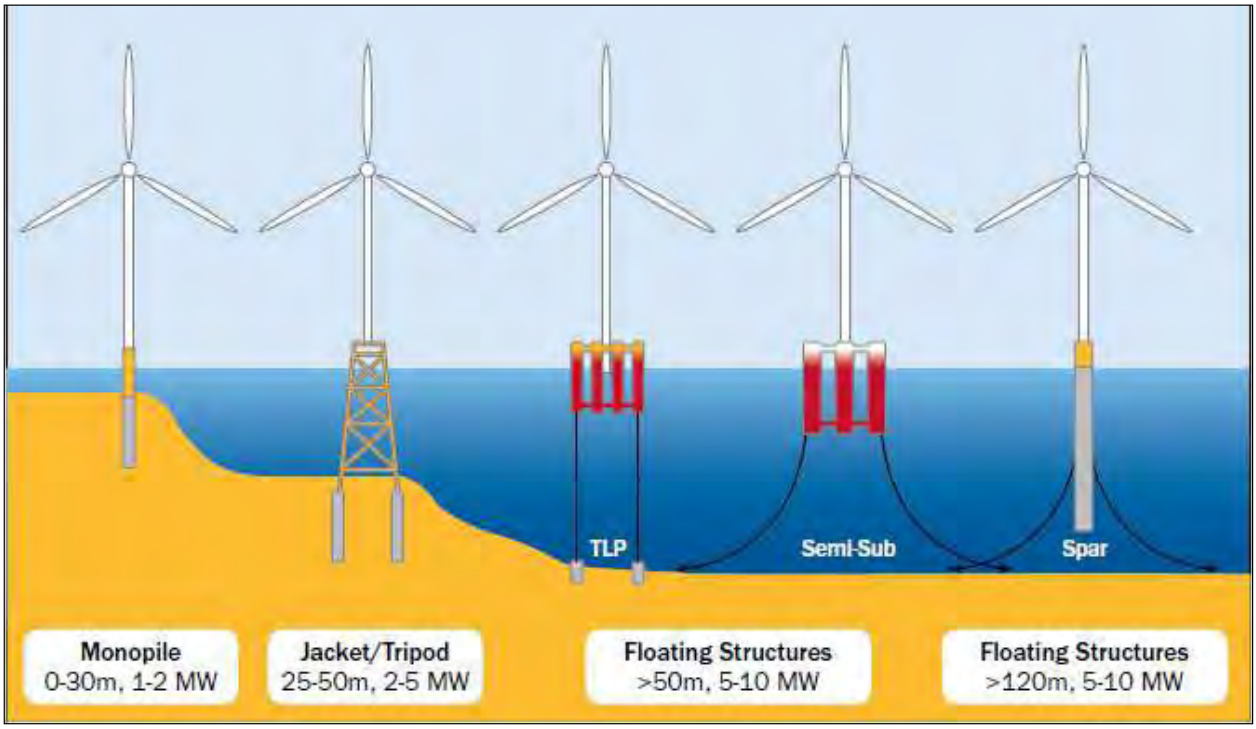

Figure 8.2 Offshore wind foundations **[Source: European Wind Energy Association 2013]**

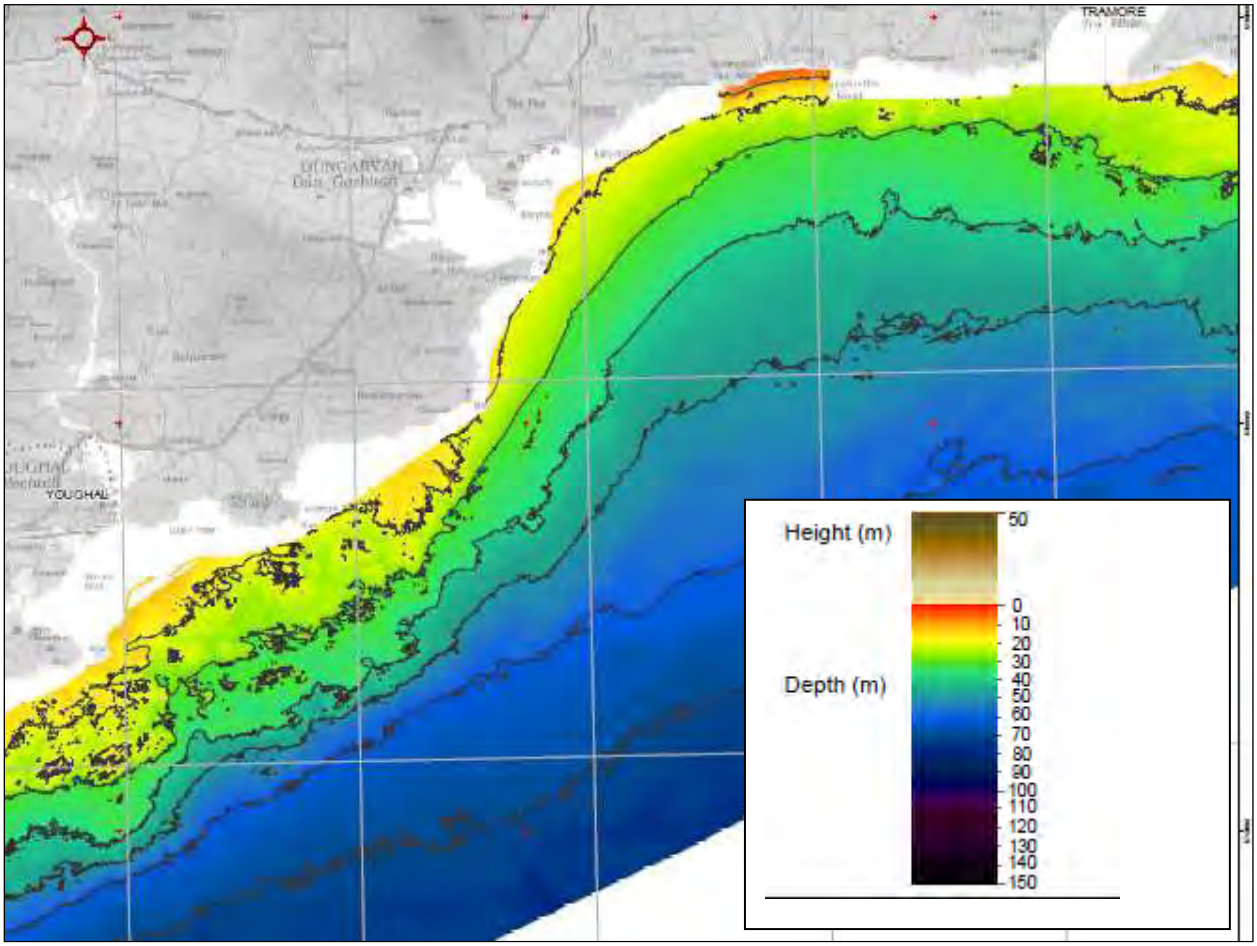

Figure 8.3 Seabed depths off the Coast of Waterford **[Source: INFOMAR]**

8.3 Tidal energy

The two main types of tidal energy are:

1. Tidal barrage system is a dam-like structure used to capture the energy from a body of water moving in and out of a bay or river due to **tidal** forces. They are unlikely to be a viable option for Waterford due to environmental considerations when installing the system.
2. Tidal stream turbine is located beneath the water surface and operate on the same principal as a wind turbine, driven by consistent tidal currents. They appear to be the most viable option for replication in Waterford.

The major benefit of tidal energy is the predictability of tidal streams which is highly attractive for grid management and load profiles.

8.3.1 Tidal Energy in Waterford

Historically, tidal energy was one of the first forms of renewable energy utilised in Waterford, with evidence of a 5th century tidal mill being discovered at Kiloteran and the remains of many more 18th and 19th century mills still visible in places such as Piltown, Cheekpoint and Dungarvan. Today, tidal energy represents one of the most exciting emerging forms of renewable energy. There have been no tidal energy installations off the Waterford coast to date.

8.3.2 Tidal Energy Potential in Waterford

The SEAI report on Tidal Current Energy Resources in Ireland[15] shows that although some coastal areas of Waterford fulfil the topographic requirements for an installation of the first phase of tidal energy technologies, the overall average tidal current falls below the established working parameters for efficient generation. However, there is a possibility of tidal energy being developed in Waterford in the future when the technology efficiency improves. The SEAI recommend that a re-assessment of tidal energy viability be undertaken after a period when further test

[15] Sustainable Energy Authority of Ireland, *Tidal and Current Energy Resources in Ireland*, 2008

data is available. This Strategy is supportive of Waterford being a location for research and development of tidal technology.

8.4 Wave energy

The average wave height off the coast of Ireland is 2.5 to 3m and the power generated is a function of the wave height, speed and water density. The best wave resources in Ireland occur along the west, north and south coasts where environmental conditions are more extreme. Nearer the coastline the wave energy decreases, therefore waves in deep water offshore will have the greatest energy. Wave energy in Ireland is currently largely focused on research, testing and pilot deployment. There are a range of wave energy devices currently being tested which offer potential for the near shore and offshore environment[16].

[16] SEAI website, *Wave Energy and Wave Energy Devices* http://www.seai.ie/Renewables/Ocean-Energy/Ocean-Energy-Explained/Wave-Energy-and-Wave-Energy-Devices.html

8.4.1 Wave Energy in Waterford

The average wave height off the Waterford coast is .75m-1.25m[17] which compares to an average wave height of 2.5m-3m on the West coast of Ireland. There are no wave energy installations off the coast of Waterford.

8.4.2 Wave Energy Potential in Waterford

Although wave energy holds some promise as a method of power generation there are currently no plans for an installation off the Waterford Coast. The potential of the Waterford coast, while less than that of the west coast of Ireland, could in the long term prove viable and the technology could be compatible with the more benign weather conditions along the Waterford Coast. It is likely that the second phase of wave energy technology (i.e. a commercially developed prototype) could be installed off the Waterford coast, which could significantly contribute to the renewable energy developed locally.

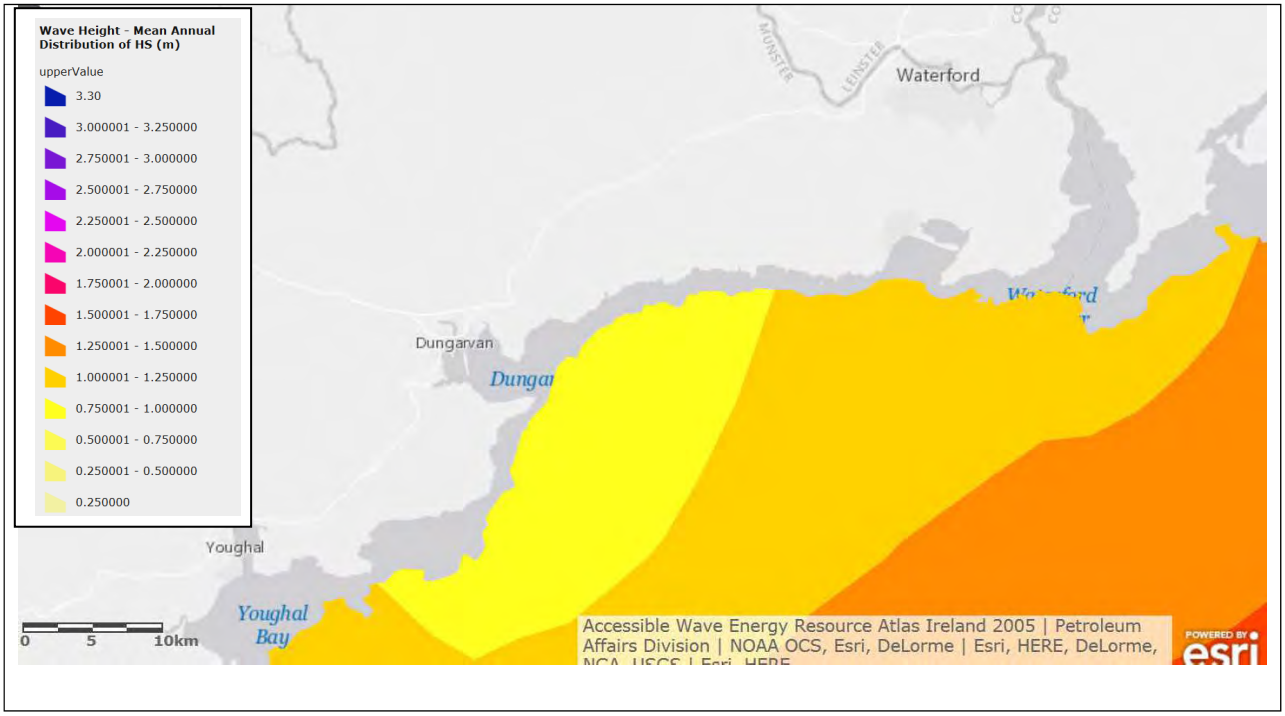

Figure 8. Average Annual Wave Height off coast of Waterford **[Source: OREDP 2014]**

[17] Accessible Wave Energy Resource Atlas Ireland 2005

8.5 Advantages/Disadvantages of Marine Renewable Energy for Waterford

The following is a summary of the advantages and disadvantages pertaining to Marine Renewable Energy for Waterford.

Advantages	Disadvantages
• Abundant resource, clean, and safe	• Technology is still not cost effective and more technological advancements are required to make it commercially viable.
• Tides are very reliable with predictable generation output	• Shipping and navigation could be disrupted
• Visual aspects possibly reduced compared to onshore development.	• Expensive technology to install - will require subsidies
• Employment opportunities and business development	• Significant infrastructure requirement
	• Impacts on marine life
	• Limited power production at present
	• Output of some technology limited to periodic generation such as tides.

9.0 Micro Renewable Energy Generation

There are many definitions for micro-energy generation. However, for the purposes of this Strategy, and as per Electric Ireland (EI) definition, micro generation is defined as grid connected electrical generation up to a maximum output of 11kW. Most domestic users are only capable of having a micro generation facility of a rating up to 5.75 kW output to the grid.

Micro generation also applies where energy is generated and consumed on site, and not exported to the electrical grid. This concept of energy generation is understood as zero or low carbon heat and power generated by individuals, businesses or communities to serve their individual energy needs.

Micro generation renewable energy technologies can include:

- Solar photovoltaic
- Solar water heating
- Micro wind turbines
- Micro hydro electrical schemes
- Micro scale biomass stoves and boilers
- Ground / air source heat pumps
- Micro CHP plants

9.1 Micro Renewable Development in Waterford

Examples of micro-generation technology in Waterford include the use of wind turbines at the civic amenity sites in Dungarvan and Tramore, and solar panels at the Holy Ghost care home, Waterford City. Also, many private dwellings in Waterford have erected solar panels or to a lesser degree some have installed single wind turbines on their property.

9.2 Micro Renewable Potential in Waterford

Low carbon development, through use of micro renewable energy technologies will be encouraged throughout Waterford having regard to the principles of proper planning and sustainable development. Micro-renewable energy presents many benefits including reduced dependency on fossil fuels thereby enhancing fuel security and positively impacting on CO_2 emissions. Other benefits include reduced energy costs and increased competiveness.

Many micro-renewables serving domestric, industrial, commercial or agricultural purposes are exempt from planning permission under certain conditions. Regard should be had to the following publications which detail the type of micro-renewables which are exempt from planning permission:

- Domestic Renewable Energy Installations – SI 83 Planning & Development Regulations 2007 (as amended);
- Commercial/Agricultural Renewable Energy Installations – SI 235 Planning & Development Regulations 2008 (as amended).

Any proposals for micro-renewables that require planning permission will be determined in accordance with the principles of proper planning and sustainable development, and the relevant polices of the City/County Development Plan.

Micro Combined Heat & Power (CHP) units have been piloted by SEAI in 2011 with some favourable results and offer potential where there is a hot water demand above 4000 hours a year and where there is a constant electrical demand or where there is a favourable REFITT tariff. Further support schemes are expected to support the roll out for micro CHP are where commercial, large residential buildings etc, will have micro CHP installed.

9.3 Advantages/Disadvantages of Micro Renewable Energy Generation for Waterford

Advantages	Disadvantages
• Produces little or no water/air pollution	• Some visual impact
• Can be located relatively close to end user.	• Little capacity for storage
• Easily scalable system	• Expensive technology to install, grant assistance required in many cases
• Employment and income opportunity to rural communities in particular	• Live cycle and maintenance issues are a concern for some technologies
• Reduces loading of national grid requirements	• Micro renewables are not favoured by large utility companies
Reduced energy costs	• Output of some micro renewable varies with environmental conditions

10.0 Miscellaneous Renewables

10.1 Geothermal Energy

Geothermal energy seeks to harness energy through the extraction of power from heat stored in the earth. There are two forms of geothermal installation, namely deep or shallow pipe installations. In general, the potential impacts that may arise are more significant in cases where deep installations are proposed. Deep geothermal typically involves drilling in excess of 400m below the earth's surface.

10.1.1 Geothermal Energy Development in Waterford

There are approximately 300 shallow geothermal installations in Waterford where heat is extracted from a ground source and upgraded via a heat pump and distributed into a building to provide space heating.

10.1.2 Geothermal Energy Potential in Waterford

Deep geothermal energy for heat and electricity generation is unlikely to progress in Waterford pre 2030 as other alternative forms of renewable energy are deemed more economically advantageous. The high capital costs of accessing this resource renders it unfavourable.

The potential for the further use of this technology for home heating is not significant due to improvements in efficiencies of air-source heat pumps which now have an improved coefficient of performance (COP), making air-source heat pumps a more favourable option for many building projects due to lower installation costs. A target of 124MW of energy output from domestic micro thermal including heat pumps, micro CHP, solar water heating is envisaged in this Renewable Energy Strategy for Waterford by 2030.

10.1.3 Advantages/Disadvantages of Geo-thermal for Waterford

Advantages	Disadvantages
• Low running costs	• Possible seismic events and subsidence
• Little or no pollution (if gases contained)	• Possible toxic chemical run-off
• Consistent and reliable power generation	• Exploration and drilling very expensive

10.2 Combined Heat and Power – Natural Gas

As modern industries strive to become more fuel efficient CHP is often seen as a practical addition, providing on-site heat and electricity. Leisure centres and Hotels with swimming pools have a requirement for continuous heat generation and CHP plants are ideally suited to such facilities.

10.2.1 Natural Gas CHP in Waterford

Examples of functioning CHP boilers which are powered by locally available natural gas can be found at Crystal Leisure, the Kingfisher Club, the Woodlands Hotel, and the Tower Hotel.

10.2.2 Natural Gas CHP Development Potential in Waterford

There is limited scope for further gas fired CHP installations in Waterford and will be site specific and will tend to be units that are sized to match specific processes. An energy output of 2.6MW from Natural Gas CHP is envisaged in this Renewable Energy Strategy by 2030 – See Table 3.3. The White Paper "Irelands Transition to a Low Carbon Energy Future" is supportive of future CHP installations between 2015- 2030.

11.0 Renewable Transport Technologies

11.1 Transport

The transport sector is the largest fuel consumer in Ireland and is responsible for more greenhouse gas emissions than any other sector of the economy. The achievement of a 10% transport target from renewables by 2020 is ambitious and one which will require significant measures to achieve. In 2014 renewable energy accounted for 5.2% of transport energy consumption in Ireland[18].

The White Paper for Energy 2015 is cognisant of the need to support alternatives to fossil fuels for transport and it recommends the following initiatives:

- The roll out of electric and gas vehicles through grants and tax relief, and;
- Development of a national policy framework to support infrastructure for alternative transport fuels.

In this regard, a combination of energy efficiency transport initiatives, electric vehicles and renewable transport sources can reduce Waterford's dependence on imported fossil fuels and associated greenhouse gas emissions from the transport sector.

11.2 Electric Vehicles

The carbon emissions relating to the powering of electric vehicles[19] is expected to reduce significantly by 2030, through the adoption of electrical generating renewable technologies and more efficient generating plant and Smart Grid technology.

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[18] SEAI Energy in Ireland Key Statistics 2015 (2015)

[19] *"As of September 2015, the number of EVs in Ireland was over 1000. Meeting the 2020 target would mean that EVs would account for 20% of all new cars sold in Ireland by 2020".* SEAI report 2016

11.2.1 Electric Vehicle Development in Waterford

The ESB is responsible for the rollout of EV charging points across the country with 3 types of charge points being installed by 'ESB ecars' nationwide: home charge points, public charge points and fast charge points. Currently, there are sixteen EV charge points located in Waterford city and county. Waterford City and County Council purchased a number of electrical vehicles under the Dungarvan Smarter Travel Programme which are used for work purposes around Dungarvan and environment and have proved a credible, effective form of transport.

11.2.2 Electric Vehicle Potential in Waterford

The Council supports the expansion of the EV charging network in Waterford in conjunction with the ESB and will seek to require the installation of additional public charge points[20] as part of car-parking facilities of private developments through its development management standards for car-parking as set out in the City & County Development Plan (as varied).

11.3 Biofuels

The national Biofuel Obligation Scheme 2010 requires all road transport fuel suppliers to use biofuel in the fuel mix (6% since January 2013) with a further target of just over 8.5% being adopted from January 2017. This scheme is recognised as the most promising means of securing national renewable energy targets by 2020. However, under this scheme much of the biofuel is imported.

11.3.1 BioFuel Potential in Waterford

There is a need to support and develop indigenous renewable energy sources that contribute to meeting the transport renewable energy targets. The potential exists for the development of second generation biofuel production facilities which will produce more advanced biofuels within Waterford. Such a development would

[20] There are approximately 16 EV charge points in Waterford City & County – May 2016

likely be developed by a private company, requiring significant resources to develop such a facility.

Bio-ethanol[21] has potential for use as a direct petrol supplement within vehicles. This is particularly the case where the ethanol is produced from residues of dairy products, thereby creating potential spin-off economic opportunity in the dairy sector in Waterford.

[21] Bioethanol is a type of fuel made from plants and can be used as an alternative to petrol - www.oxforddictionaries.com

12.0 Supporting Infrastructure

12.1 Introduction

The maximising of the renewable energy potential of Waterford up to and beyond 2030 is dependent on the installation of local and national key infrastructure, which includes the national electrical transmission and distribution network, national gas network, transportation system within the county and other services / utilities such as water and wastewater.

Developing renewable energy projects will have different infrastructure requirements depending on the technology employed, the location and the operation conditions. These include access and connection to grid infrastructure, distribution networks, accessibility (by road, rail, or sea), ports/yards for crane installation and component assembly and access routes for decommissioning, operation and maintenance.

12.2 Grid Connection

Large renewable energy projects are required to make a connection to the grid. Viability of grid connection is a very important planning consideration. It may be that a site is a considerable distance from the network or that the network is unable to handle extra capacity potential. In such cases, network improvements may be required or additional overhead lines may be required which could result in issues regarding visual impacts/prohibitive costs.

Since December 2004, a Group Processing Approach (GPA) has applied to applications for connection offers for large renewable electricity generators (mostly wind) to the national grid.

Under the GPA (Group Processing Approach) or 'Gate' process, applications for connections to the grid are processed in batches rather than sequentially. To date there have been three Gates. Under Gate 1 and Gate 2, 1,755 MW of connection offers were made and accepted. Grid offers are currently being exercised for projects under the Gate 3 grid access process which provides for almost 4,000 MW

of new renewable energy generation nationally. Future renewable energy projects are likely to be offered under the Gate 4 grid access process. The expected date for grid offers to be made under Gate 4 projects is not known but is likely to be post 2020. See Appendix 3 for a list of current Grid applications in Waterford.

The Grid 25 Strategy published in 2008 and which makes provision for the future infrastructure required to deliver Gate 3 renewable energy projects, is now currently under review. It will be superceded by a new national Grid Development Strategy to be published in 2016. This new Strategy incorporates the 'Regional Option' which proposes to use the existing 400kV grid infrastructure from Moneypoint to the greater Dublin Area, the exact details of which are still being worked on.

The Council is committed to working closely with Eirgrid in the preparation of this Grid Development Strategy to ensure that the County has the required infrastructure network to enable it to generate, distribute and export renewable energy.

12.3 Electricity Supply Network

There is no conventional electrical generation plant in Waterford, the nearest plant being the 460 MW gas fire plant at Great Island Wexford.
Waterford is serviced by a 220 kV and 110 kV electrical transmission network. Both these transmission lines are linked to strategically located transformer sub-stations where the voltage is reduced to 38kV and eventually to the 20 kV lines for onward local distribution.

Renewable energy projects depending on scale will access the electrical grid via the 110kV, 38kV and 20kV lines through the building of a substation / transformer point, with micro renewables accessing the distribution network directly through the available electrical service.

Eirgrid manages and operates the national 400 kV, 220 kV and 110 kV electrical transmission network throughout Ireland and two electrical interconnectors. The 38kV and 20kV distribution network which spans the whole of Waterford is managed by ESB Networks.

Additional support infrastructure including substations, transformer points, power lines will likely be required, between 2016-2030 to cater for the additional electrical demand, which this Strategy has identified to increase at a rate of between 6% - 7% per year up to 2030.

12.4 Gas Network

Gas Networks own and operate the natural gas transmission and distribution network in Ireland which currently services Waterford City and Tramore along with a connection for future development in Kilmeaden. An increase to the gas network within these areas will help provide security of gas supply to industry / homes etc. Modifications to the existing gas network will be required to accommodate the powering of natural gas vehicles and for the injecting of processed biogas into the gas distribution network.

12.5 Smart Grid

The development of a smart grid is an important energy efficiency measure and a means of maximising the benefits of renewable energy technologies exporting to the grid. Criteria of the Smart Grid include:

- Voltage / grid power management;
- Integration of the expansion of electric transport system;
- Demand side management;
- Smart metering for all sectors;
- Sophisticated tariffs. will significantly contribute to the development of a smart grid by 2030.

The Council fully supports the evolution of the current electricity grid to meet the criteria outlined above and to better deliver energy to Waterford.

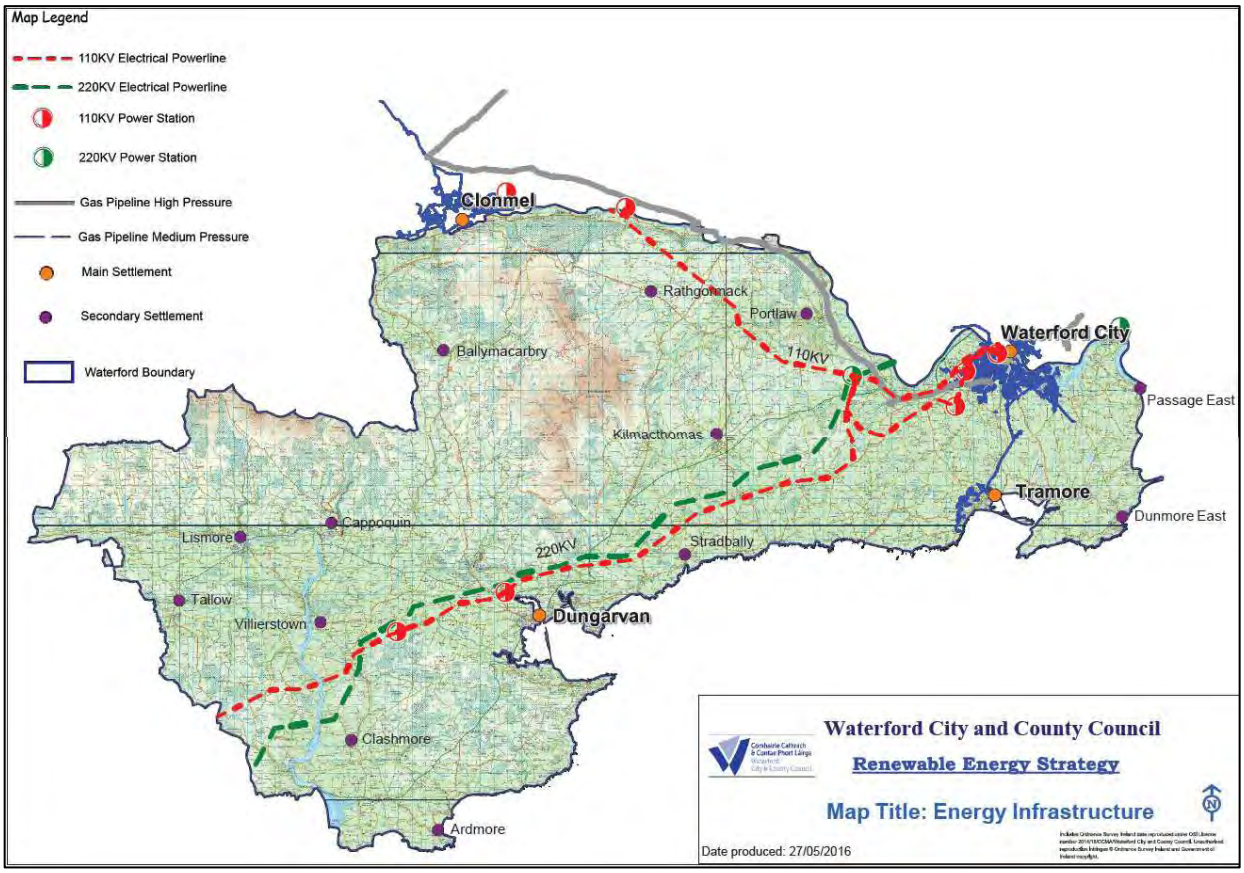


Figure 12.1 Energy Infrastructure in Waterford

12.6 Road Network

The quality of the road network is imperative to developing renewable energy projects in Waterford, in particular renewable energy sites that are remote. Renewable energy projects generally require adequate road infrastructure to enable large heavy goods vehicles transport plant and materials. Access will also be required for operation and maintenance purposes and for decommissioning.

From an operations perspective, the biomass industry and associated technologies of AD and CHP are highly dependent on good road networks between points of supply and demand.

12.7 Ports / Harbours / Piers

Development of marine renewables and the associated servicing greatly depend on the capacity of port infrastructure. This Strategy recognises that the development of marine renewables at strategic locations may require necessary upgrades to local harbours, to cater for installation and maintenance of marine renewable technologies in order to provide the necessary infrastructure to maximise the potential of marine renewable energy.

12.8 Energy Storage

Renewable energy sources have great potential to reduce dependency on fossil fuels and greenhouse gas emissions. Despite this many of the resources have intermittent or variable output, therefore if they are not harnessed the energy goes to waste. In this regard, the installation of energy storage facilities is critical to store the excess electrical energy generated by renewable energy technologies and when demand is low. This stored electrical energy will provide a balance to the grid when demand is high and output from renewables is low. There are a number of storage systems which offer potential including pumped hydroelectric energy storage (PHES), battery storage and thermal storage.

12.9 Renewable Energy Support Schemes

Renewable energy projects are supported by government schemes and initiatives such as the Renewable Energy Feed in Tariff (REFIT), which is administered by the Department of Communications Energy and Natural Resources (DCENR). The REFIT schemes have been designed to incentivise the development of renewable electricity generation in order to ensure Ireland meets its goal of 40% of electricity coming from renewable sources by 2020. It is funded by the Public Service Obligation (PSO) which is paid for by all electricity consumers.

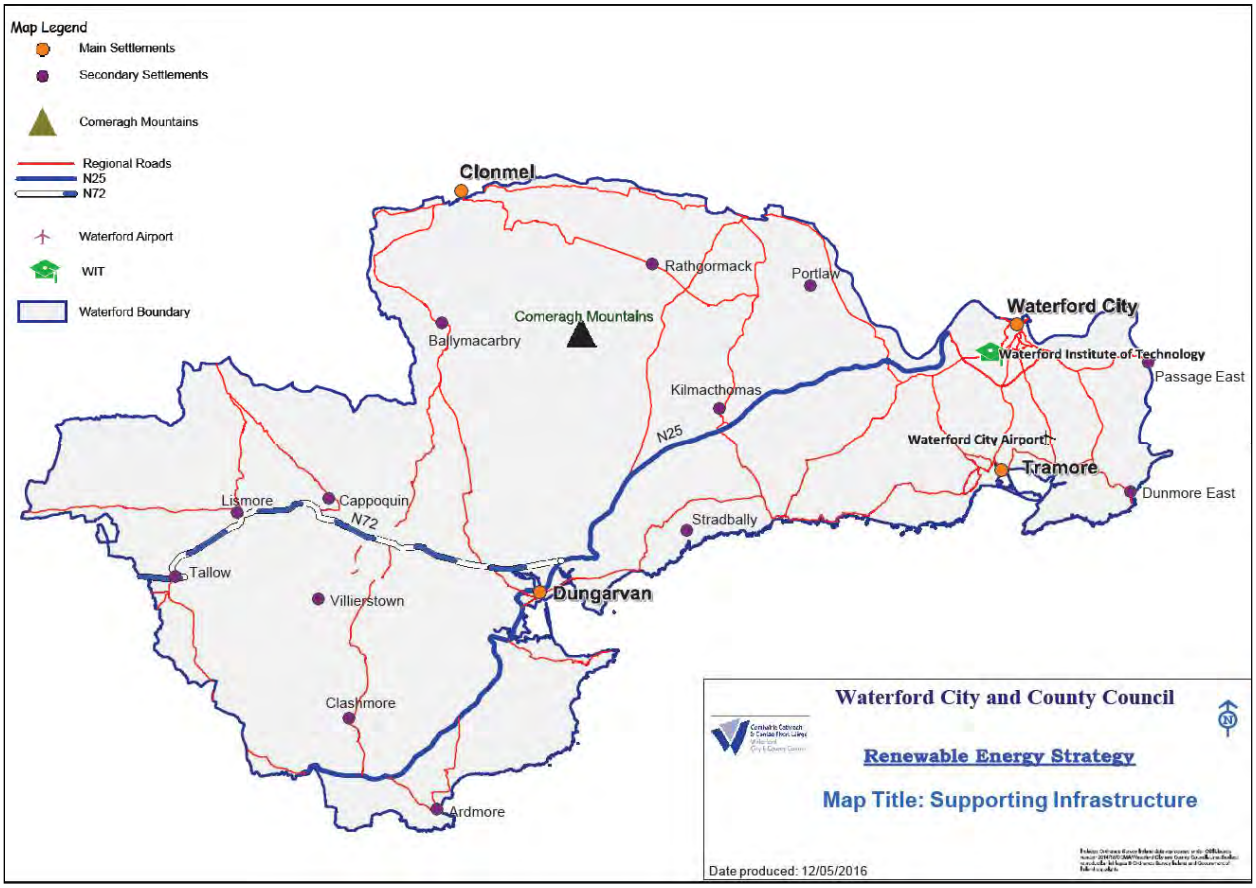


Figure 12.1 Supporting Infrastructure

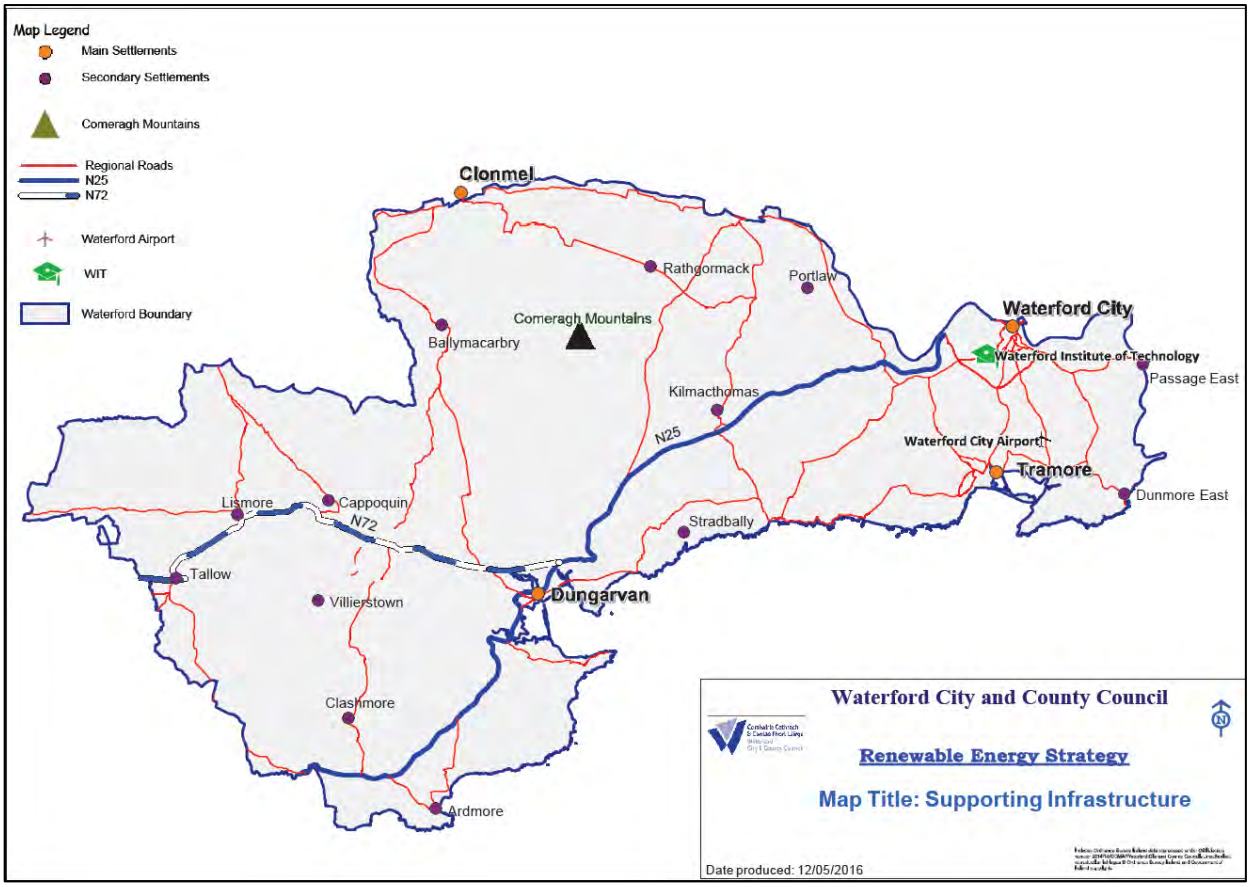


Figure 12.2 Supporting Infrastructure

13.0 Strategic Planning Considerations

This Renewable Energy Strategy has been prepared as a strategic document which will underpin the policies and objectives of the current City and County Development Plans and inform the future review of these documents, in terms of policy and development management formulation.

Having considered the resource potential of various renewable technologies for Waterford, it is recognised that there are also considerations of an environmental and planning nature on the development of such renewable energy. These considerations include the natural environment; landscape; the built and cultural heritage; socio-economic impacts; the better integration of spatial planning and energy planning. Also, the issue of community consultation, community benefit and community involvement in renewable energy production are matters which also must be considered from a proper planning perspective.

It is the policy of Waterford City and County Council to promote and support the development of renewable energy technologies most suited to Waterford, to seek to reduce dependency on fossil fuels thereby enhancing the environmental, social and economic benefits to Waterford City and County.

13.1 Renewable Energy and Protection of the Environment

As per the Development Plans for Waterford City & County, the Council will assess all proposals for renewable energy development based on sustainable development principles.

The Council will seek to protect the conservation status of Natura 2000 sites and in this regard all renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive, and where judged necessary a Natura Impact Statement shall be submitted.

The council shall have regard to Section 5 of the Planning & Development Regulations 2001 (as amended) in determining whether a renewable energy project should be subject to EIA[22]. This Strategy also highlights that EIA may be required for renewable energy proposals below statutory thresholds at the discretion of the Council. This principle also applies for renewable energy proposals not specifically listed in the development classes of EIA, e.g. Solar Farms. In this regard, the Council shall have regard to Schedule 7 of the Planning & Development Regulations 2001 (as amended) in deciding whether a renewable energy project is likely to have significant effects on the environment.

13.2 Renewable Energy and the Landscape

The Scenic Landscape Evaluation map as set out in the Waterford County Development Plan classifies the landscape and features of Waterford and seeks to protect the landscape from inappropriate and unsustainable forms of development whilst also recognising that changes in the landscape brought about by development are inevitable.

Appropriate consideration of landscape capacity to accommodate renewable energy developments shall be carried out in the assessment of any proposal. This Renewable Energy Strategy also recognises the importance of undertaking a Landscape Character Assessment for Waterford in accordance with National landscape guidelines [Objective ENV 1 of Waterford County Development Plan 2011- 2017].

13.3 Renewable Energy and consideration of External Factors

The development of renewable energy can give rise to a variety of issues which have to be considered as part of the planning and development of renewable energy technologies.

[22] Environmental Impact Assessment is "*the process by which the anticipated effects on the environment of a proposed development are measured. If the likely effects are unacceptable, design measures or other relevant mitigation measures can be taken to reduce or avoid those effects*" *www.epa.ie/monitoring**assessment/assessment**/eia/*

13.3.1 Policy/legislative Considerations

Regard should be had to certain plans and guidelines, e.g.

- Water Framework Directive and River Basin District Management Plans.
- Fisheries Ireland with particular reference to *"Guidelines on the Planning, Designing, Construction and Operation of small scale Hydro-Electric Schemes and Fisheries".* This document provides guidance on the development of hydro-electrical projects and associated impacts on fisheries;
- Rights of Way – land ownership rights. Renewable energy development can require agreements from neighbouring landowners in respect of supporting infrastructure, power lines etc.

13.3.2 Environmental Considerations

- Drainage, surface water run-off and hydrology issues.
- Fish spawning and nursery areas as well as adult fish habitat – Construction and operational phases of renewable energy developments can have impacts on the fisheries resource and associated habitats if such developments are not undertaken in an environmentally sensitive manner;
- The management and control of invasive species;
- The maintenance of biodiversity not just in rivers, streams and lakes but also in the associated riparian zones and wetland areas;
- The impact of renewable energy on the conservation status of Natura 2000 sites.

13.3.3 Infrastructure Considerations

- Availability of grid infrastructure – proximity to grid and capacity of grid. If site is too far from a suitable grid connection, then the cost and impact of cabling may make the project unviable.
- General access during construction/ongoing maintenance etc.
-

13.3.4 Socio-Economic Considerations

- Balancing with other land uses, e.g. Agriculture, Aquaculture, Tourism and Leisure, Fishing sites, Navigation routes;
- Impact on sensitive receptors including local residents, areas of tourism and landscape amenity value, material assets including the architectural and archaeological heritage, and the cultural heritage.

13.4 Renewable Energy and Spatial Planning

It is clear that the growth of Waterford will require a reliable, robust and energy efficient system to power homes, commercial/industrial landuses and transport needs over the lifetime of this RES and beyond. The City and County aspire to becoming as carbon neutral as possible and to maximise energy efficiency and renewable energy opportunities.

In achieving this aim, there is a need to strengthen links between renewable energy and spatial planning through County Development Plans, Strategic Development Zones and other local plans. This Strategy highlights the role of Spatial Energy Demand Analysis[23] as a means of bridging the gap between energy planning and landuse planning. Understanding existing and future energy demand in a spatial manner allows the necessary policy decisions regarding the integration of renewable energy technologies into the built environment and the landscape, to be made in a robust, informed and evidenced based manner.

This Strategy recognises that energy and climate change mitigation issues should be included as an additional layer in the development plan making process to ensure landuse planning and energy planning are fully integrated.

[23] Planning, Climate Change and Energy in Ireland – Irish Planning Institute Guide

13.5 Renewable Energy and Community

13.5.1 Renewable Energy and Community Consultation

There is no statutory requirement for a developer to consult with the local community in respect of any renewable energy development proposal over and above the statutory requirements set out in the Planning & Development Act 2000 (as amended), i.e. a site notice, newspaper notice, public submission period and third party right of appeal to An Bord Pleanala.

However, the Planning Authority strongly encourages both developers and local communities to engage in meaningful consultation at the very early stages of the pre-planning process and ongoing throughout the planning process. Community engagement which continues through the construction and operation stages is highly recommended and will improve the likelihood of community acceptance of proposed renewable energy projects.

13.5.2 Renewable Energy and Community Ownership

Some renewable energy technologies lend themselves particularly well to a cooperative model of ownership and operation. These include AD, biomass, wind farm, geothermal and district heating. In Ireland, the concept of community involvement is underutilised when compared with Scotland for example, where a dedicated body – 'Community Energy Scotland' provide guidance and advice to local communities on how they may become involved and benefit from community energy.

Case Study Community Owned Renewable Energy Project Templederry Community Wind Farm

Templederry Community Wind Farm in County Tipperary is a 100% community-owned and commissioned wind farm, the first of its kind successfully developed in Ireland. In 2001, the local community in Templederry came together to investigate

ways to increase employment and investment in their area. The concept of renewable energy was examined and 'Templederry Energy Resources' was set up.

The Tipperary Energy Bureau and Leader were instrumental in providing assistance in the planning and development phase of the new wind farm, comprising 2 turbines. The group is now producing enough electricity to power 3,500 homes per annum.

13.5.3 Renewable Energy and Community Benefit

The installation of a new energy infrastructure can give rise to a wide range of local concerns which can and do impact the smooth rollout of renewable energy projects and which can become a divisive issue in local communities. The primary concerns generally relate to noise, landscape and visual disturbance and the associated impact on individuals, local communities and the environment.

The Government White Paper[24] has highlighted a number of actions which could widen the opportunity for greater community participation in renewable energy projects and in turn bring about greater social acceptance for renewable energy projects. These actions include:

- Development of a framework for how communities can share in the benefits of substantial new energy infrastructure which is located in their area;
- Examination of shared-ownership opportunities for renewable energy projects in local communities;
- Developing mechanisms to allow communities to avail of payment for electricity, such as the ability to participate in power purchase agreements;
- Support of the emerging energy co-operative movement as one means of facilitating community participation.

[24] Ibid.

Waterford City & County Council would welcome the provision of national guidance and statutorily based regulation on the matter of community benefit[25].

13.6 Renewable Energy Strategy & Monitoring

The monitoring of this Renewable Energy Strategy primarily relates to the achievement of the national energy and energy efficiency targets set out under the NREAP and the NEEAP whilst also ensuring the protection of the environment.

An energy balance has been prepared as part of this Renewable Energy Strategy including projections for energy use up to 2030. A key indicator of the success in the promotion, planning and development of renewable energy in Waterford will be the assessment of this energy balance and whether the targets have been achieved over the lifetime of this Strategy.

The Renewable Energy Strategy will form part of the City and County Development Plans and will be reviewed in line with said plans.

[25] Guidelines on Community Gain: DCENR and DECLG are examing the issue of community benefit as part of a Renewable Electricity Policy and Development Framework. The issue of appropriate benefits to local communities will be addressed under the Framework.

Appendix 1

Glossary of Terms

Anaerobic Digestion

The process whereby bacteria break down organic material in the absence of oxygen yielding a biogas which can be combusted to generate electricity and heat.

Bio-fuels

Fuels derived from biomass.

Biomass

Biological material derived from organic materials, either directly from plants or indirectly from industrial, commercial, domestic or agricultural products, which can be converted to fuel for electricity, heating or transport.

Combined Heat & Power (CHP)

Combined heat and power is the production of heat and electricity in a single process.

District Heating

District Heating is a local heating network facilitated through underground pipes and a centralised heat source, usually operated in conjunction with CHP.

Greenhouse Gases (GHG)

Greenhouse gases are gases that trap heat in the atmosphere. The most significant impact comes from carbon dioxide, nitrous oxide, methane and fluorinated gases.

Geothermal Energy

Geothermal energy refers to heat energy stored in the ground. It can be classified as either 'deep' or 'shallow' depending on the depths involved.

Pumped Hydroelectric Energy Storage (PHES)

A method of storing electrical energy as potential energy by pumping water from a reservoir or lake to another reservoir at a higher elevation and storing it for use in generating electricity when required.

REFIT

REFIT stands for 'Renewable Energy Feed In Tariff' and is the primary means through which electricity from renewable sources is supported in Ireland.

Smart Grid

An evolution of the existing electricity grid incorporating operational and energy measures, maximising the efficiency of the electricity system.

Waterford Energy Bureau (WEB)

One of 15 regional/local energy agencies situated in Ireland, WEB provides a range of energy management, energy conservation and renewable energy services to the general public, to businesses and to Waterford City and County Council.

Units of Power:

Watt (W): Unit of power output	**Kilowatt (kW):** 1,000 Watts
Megawatt (MW): 1,000 kW of power	**GW (Gigawatt):** 1,000MW of power
Terrawatt (TW): 1,000 GW of power.	

Units of Energy generated over time:

Kilowatt Hour (kWh): 1 kW power output expended in one hour, the unit of electricity on a standard bill.	**Megawatt Hour (MWh):** 1 MW of power output expended in one hour.
Gigawatt hour (GWh): 1 GW of power output expended in one hour.	**Terrawatt hour (TWh):** 1 TW of power output expended in one hour.

APPENDIX 2

The Wind Energy Policy of the Waterford County Development Plan 2011-2017 in place at time of making the Renewable Energy Strategy categorised Waterford County into four areas of suitability for wind farm development:

- Strategic Areas,
- Preferred Areas,
- Areas Open to Consideration,
- No Go Areas.

In preparing the new City and County Development Plan 2022 – 2028 these areas have been amended into three classifications as follows and as identified on the revised wind energy designations map:

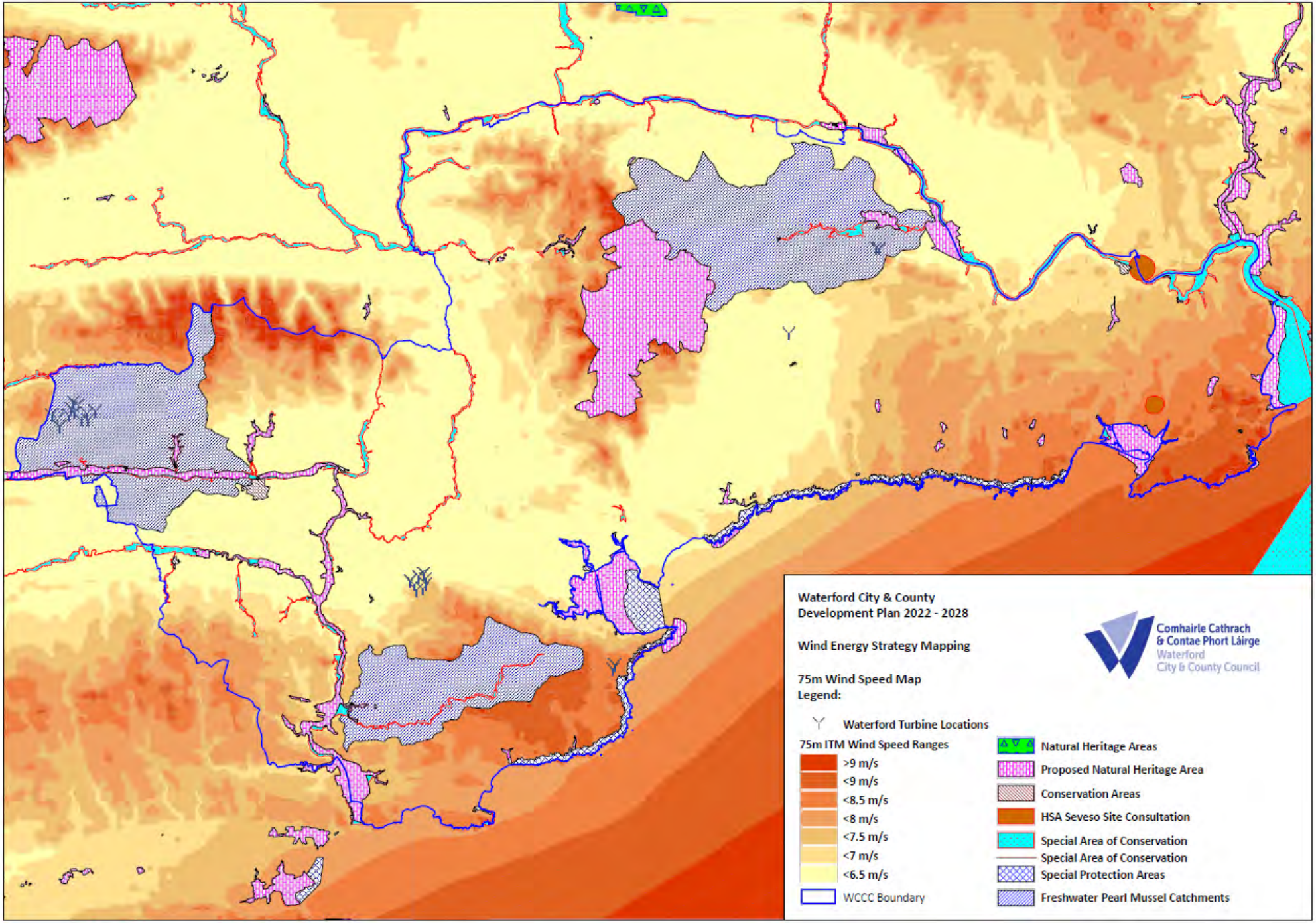
- Preferred Areas,
- Areas Open to Consideration,
- No Go Areas.

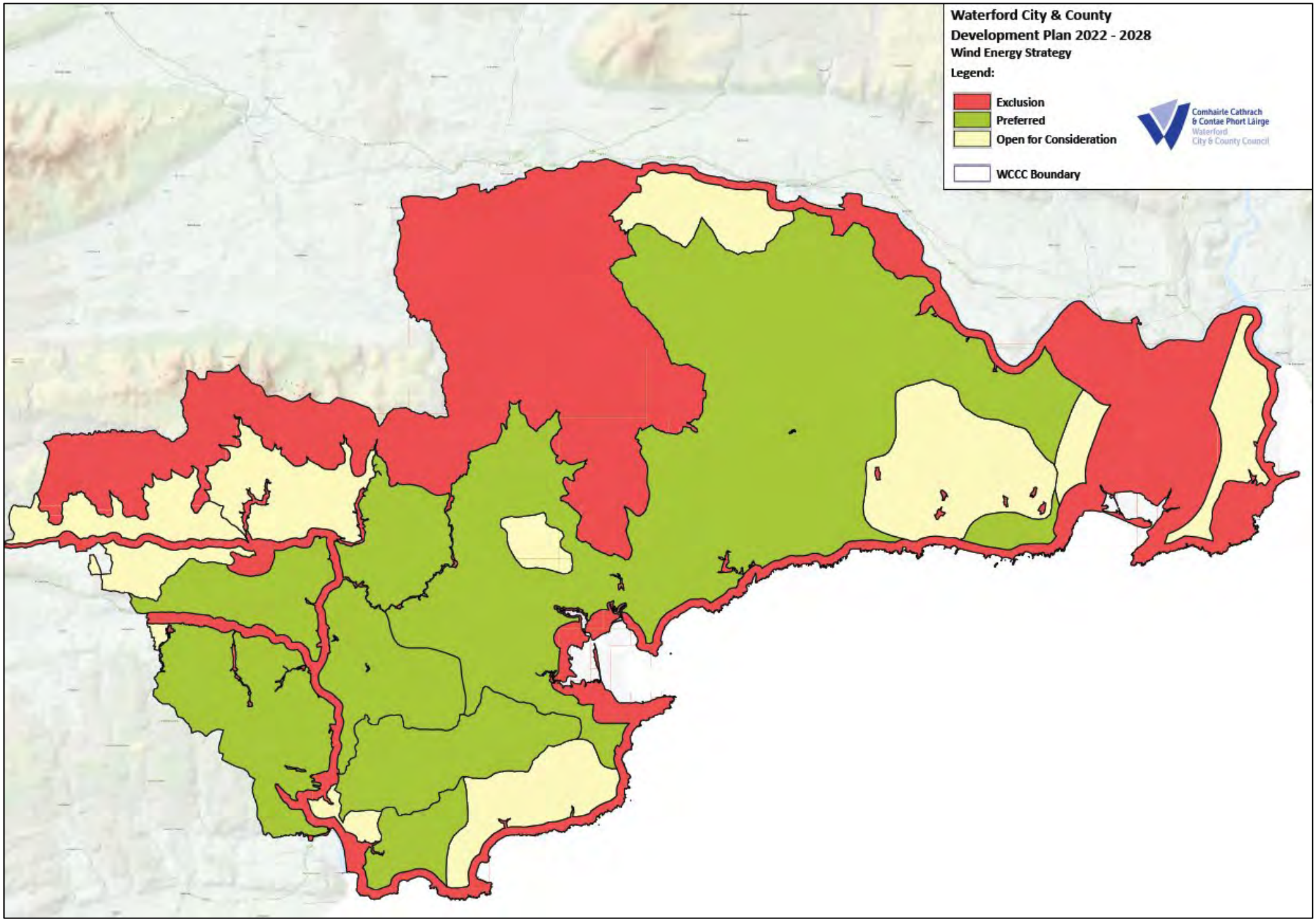
These areas have been identified by way of overlaying the following series of maps and data:

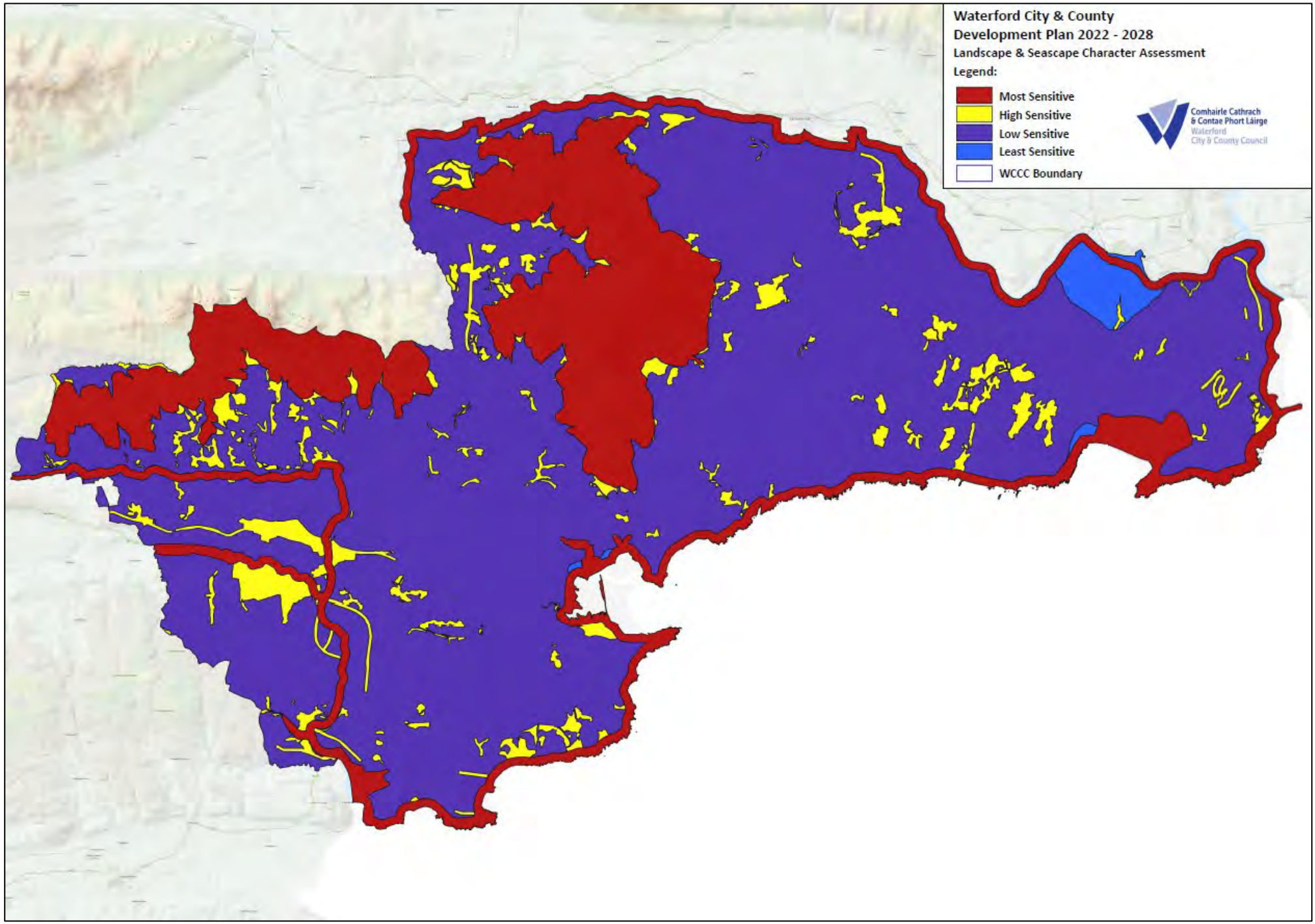
The Landscape and Seascape Character Assessment (Appendix 8 of the Development Plan);

- Natura 2000 network;
- Urbanised areas;
- Waterford Regional Airport Masterplan (Appendix 12 of the Development Plan);
- Wind energy mapping of adjacent local authorities;
- Major road infrastructure; and,
- Transmission grid.

Maps representing these data sets including an amended LCA map are presented below along with the proposed wind energy map.


Waterford City & County
Development Plan 2022 - 2028
Wind Energy Strategy Mapping
75m Wind Speed Map
Legend:
Comhairle Cathrach
& Contae Phort Láirge
Waterford
City & County Council
Waterford Turbine Locations
75m ITM Wind Speed Ranges
>9 m/s
<9 m/s
<8.5 m/s
<8 m/s
<7.5 m/s
<7 m/s
<6.5 m/s
WCCC Boundary
Natural Heritage Areas
Proposed Natural Heritage Area
Conservation Areas
HSA Seveso Site Consultation
Special Area of Conservation
Special Area of Conservation
Special Protection Areas
Freshwater Pearl Mussel Catchments


Waterford City & County
Development Plan 2022 - 2028
Wind Energy Strategy
Legend:
Exclusion
Preferred
Open for Consideration
WCCC Boundary
Comhairle Cathrach
& Contae Phort Láirge
Waterford
City & County Council


Waterford City & County
Development Plan 2022 - 2028
Landscape & Seascape Character Assessment
Legend:
Most Sensitive
High Sensitive
Low Sensitive
Least Sensitive
WCCC Boundary
Comhairle Cathrach
& Contae Phort Láirge
Waterford
City & County Council

Appendix 3

The following is a list of Grid Applications for Wind Farm and Solar Farm Developments in Waterford. These Grid applications are currently seeking an offer from the Commision of Energy Regulation to connect to the Grid. A grid offer does not infer a grant of planning permission.

Current Wind Farm Grid Applications			
Wind Farm	Turbines	Electricity Production (MW)	Annual Electricity Production (GWh/Yr)
Ballydurn 1	4	10	21.33
Ballydurn 2	2	4	8.53
Barracree	14	35	74.65
Carrigbrack East 1	8	20	42.66
Carrigbrack West 1	8	20	42.66
Coumnagappul	8	20	42.66
Coumnagappul East 1	8	20	42.66
Coumnagappul West 2	8	20	42.66
Knockanore 1	24	60	127.97
Moanbrack	3	8	17.06
Milk Hill 1	20	50	106.64
Fahafeelagh	2	4	8.53
Lisnageragh / Garranturton Brenan	28	70	149.30
Ballylangdon	9	23.1	49.27
Knocknalougha	4	10	21.33
Russelstown 1	10	24	51.19
Total	150	398.1	849.09

Current Solar Farm Grid Applications			
Project Name	**Irish Grid Co-Ordinates**	**MW**	**GWh/Yr**
Lackenfune West Solar Farm	E223122, N92939	10.00	5.33
Knocknaglogh Upper Solar Farm	E218073, N90563	30.00	15.99
Ballygagin Upper Solar Farm	E222733, N92807	4.00	2.13
Carriglong Solar Park	E258834, N104727	16.00	8.53
Towergare PV	E258780, N106848	12.00	6.40
Cooltubbrid West Solar Farm	E239051, N104490	4.00	2.13
Donkey Aters SPV	E251162, N108519	3.99	2.13
Mountboltan	E246715, N117175	4.95	2.64
Killowen PV	E247380, N116660	3.99	2.13
Ballymoodranagh North Solar Farm	E206136, N98157	10.00	5.33
Ernesiders SPV	E262131, N104312	4.00	2.13
Clashganny South Solar Farm	E246194, N116082	10.00	5.33
Clashganny Solar Farm	E246791, N116643	4.00	2.13
Amberhill Solar Farm	E250617, N108593	4.00	2.13
Blackknock Solar	E251950, N107336	4.00	2.13
Ballymac Hybrid Storage and Solar PV Phase 1	E223702, N95240	3.99	2.13
Ballymac Hybrid Storage and Solar PV Phase 2	E223702, N95240	3.99	2.13
Ardsmen SPV	E261972, N105420	4.00	2.13
Monvoy Solar	E257665, N102737	4.00	2.13
Beallough Lake	E245020, N113680	0.50	0.27
Kilmacomma Solar Farm	E220199, N119313	18.00	9.59
Rincrew	E209250, N80570	4.95	2.64
Ballymoodranagh East Solar Farm	E206136, N98157	4.00	2.13
Clashnagoneen Solar Farm	E214918, N97829	4.00	2.13
Ballyhane Solar Farm	E214963, N97409	4.00	2.13
Total		176.36	94.01

Appendix 4 SEA Screening Report

1. INTRODUCTION

As set out in the National Renewable Energy Action Plan 2010 and the National Energy Efficiency Action Plan 2014, Ireland has legally binding targets for renewable energy and energy efficiency which must be met by 2020. The NREAP 2010 sets out how Ireland intends to achieve the target of 16% renewable energy share of national energy consumption by 2020 in the following sectors:

Sector	Target for 2020
Electricity	40%
Heating & Cooling	12%
Transport	10%
Overall Target	**16%**

The EU 2030 Framework for Climate and Energy was adopted by EU leaders in October 2014 and sets a 40% GHG reduction on 1990 GHG levels, and an EU-wide target of 27% for renewable energy and energy savings by 2030.

The Climate Action and Low Carbon Development Act 2015 provides for the making of five-yearly National Mitigation Plans to specify the policy measures required to reduce greenhouse gas emission and a National Adaptation Framework to specify measures required in different sectors and by local authorities to mitigate against the negative effects of climate change.

In the context of European and national policy a Renewable Energy Strategy has been developed to support the policies and objectives of the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011-2017 and Dungarvan Town Plan 2012-2018. The Renewable Energy Strategy aims to ensure that Waterford is at the forefront of renewable energy production whilst equally promoting energy efficiency and conservation in all sectors of the economy.

The vision of the strategy is to maximise Waterford's renewable energy potential and its transition to becoming a more energy secure, low carbon county in line with national energy targets whilst balancing the need to protect the environmental, social and heritage assets of the city and county.

The strategic aims of the Renewable Energy Strategy are;

- To ensure that between now and 2030, there is a steady, progressive and measurable increase in the amount of renewable energy used in the electricity, heat and transport sectors in Waterford, commensurate with the achievement of the national target.
- To identify opportunities for various renewable energy technologies and resources applicable to Waterford.
- To maximise the opportunities for renewable energy development whilst safeguarding the environment and other amenities, subject to Strategic Environmental Assessment and Habitats Directive Assessment requirements.

Section 13 of the Strategy sets out the local authority's policy arising from consideration of the legislative policy context, the existing energy profile of Waterford and the range of renewable energy technologies;

It is the policy of Waterford City and County Council to promote and support the development of renewable energy technologies most suited to Waterford, to seek to reduce dependency on fossil fuels thereby enhancing the environmental, social and economic benefits to Waterford City and County.

2. SCREENING STATEMENT

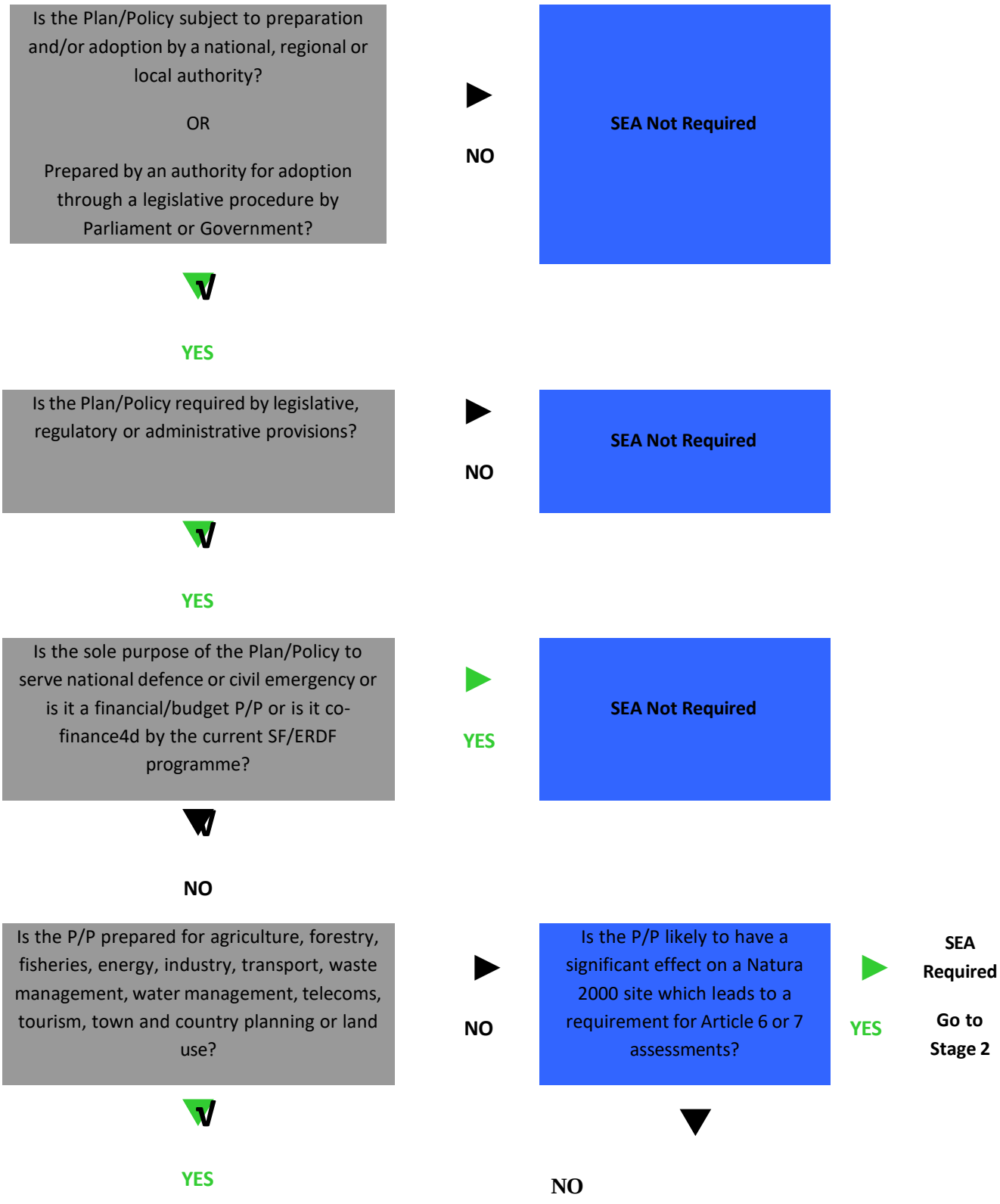
The requirements for SEA in Ireland are set out in the national regulations, **S.I. No. 435 of 2004** (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and **S.I. No. 436 of 2004** (Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended by **S.I. No. 200 of 2011** (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) and **S.I. No. 201 of 2011** (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011) respectively.
The Regulations 2004-2011 require case by- case screening of individual plans and programmes based on the criteria in Schedule 2A to the Planning and Development Regulations 2001. These criteria must be taken into account in determining whether or not significant effects on the environment would be likely to arise.

Stage One - Pre-Screening

The first step in determining whether the Waterford Renewable Energy Strategy would require an SEA involved a pre-screening check. It allows rapid screening-out of plans and policies that are clearly not going to have any environmental impact and screening-in of those that definitely do require SEA.

Following the pre-screening exercise (Figure 1) it is apparent that it is necessary to conduct further screening to determine if a Strategic Environmental Assessment of the Waterford Renewable Energy Strategy is required. The Waterford Renewable Energy Strategy will provide a framework for development of renewable energy therefore it was necessary to determine whether an SEA would be required by testing it against environmental significance screening criteria.

Figure 1. Pre-Screening Decision Tree



Stage Two - Environmental Significance Screening

The application of environmental significance criteria is important in determining whether an SEA is required for small Plans/Policies or modifications to Plans/Policies. Annex II (2) of Directive 2001/42/EC sets out the "statutory" criteria that should be addressed when undertaking this stage.

Criteria for Determining the Likely Significance of Environmental Effects

Characteristics of the Plan/Programme

i. *the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;*

It is the purpose of the Waterford Renewable Energy Strategy to maximise Waterford's renewable energy potential and its transition to becoming a more energy secure, low carbon county in line with national energy targets whilst balancing the need to protect the environmental, social and heritage assets of the city and county. The County Development Plan contains a Wind Energy Strategy which was subject to SEA in 2008.

ii. the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;

The Renewable Energy Strategy has been prepared for Waterford City and County in the context of EU and national renewable energy targets. Waterford has varied renewable energy resources with objectives to support the development of renewable energy contained in the Waterford County Development Plan 2011-2017 & Waterford City Development Plan 2013-2018. The purpose of the Renewable Energy Strategy is to provide a strategic document which will underpin these Plans and inform their future review.

The Renewable Energy Strategy examines the renewable energy potential for the city and county and considers the strategic planning factors contributing towards the deployment of renewable energy. It highlights the importance of integrating renewable energy and landuse planning. Developing a spatial understanding of existing and future energy demand allows the necessary policy decisions regarding the integration of renewable energy technologies into the built environment and the landscape, to be made in a robust, informed and evidenced based manner. The Strategy recognises that there is a need to strengthen links between renewable energy and landuse planning through County Development Plans, Strategic Development Zones and other local plans. The Strategy will form part of the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011- 2017 and Dungarvan Town Plan 2012-2018, and will be adopted by way of variation to these plans.

iii. the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;

The Renewable Energy Strategy considers the resource potential of various renewable technologies for Waterford and recognises the considerations of an environmental and planning nature on the development of such renewable energy. These considerations include the natural environment; landscape; the built and cultural heritage; socio-economic impacts; the better integration of spatial planning and energy planning. Also, the issue of community consultation, community benefit and community involvement in renewable energy production are recognised as issues that must be considered from a proper planning perspective.

As per the County Development Plan, the Council will assess all proposals for renewable energy development based on sustainable development principles. The Council will seek to protect the conservation status of Natura 2000 sites and in this regard all renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive, and where judged necessary a Natura Impact Statement shall be submitted.

The council shall have regard to Section 5 of the Planning & Development Regulations 2001 (as amended) in determining whether a renewable energy project should be subject to EIA. The Strategy highlights that EIA may be required for renewable energy proposals below

statutory thresholds at the discretion of the Council. This principle also applies for renewable energy proposals not specifically listed in the development classes of EIA, e.g. Solar Farms. In this regard, the Council shall have regard to Schedule 7 of the Planning & Development Regulations 2001 (as amended) in deciding whether a renewable energy project is likely to have significant effects on the environment.

iv. environmental problems relevant to the plan or programme;

The development of renewable energy can give rise to a variety of issues which have to be considered as part of the planning and development of renewable energy technologies. Section 13 - Strategic Planning Considerations clearly sets out the breadth of environmental criteria that are required to inform consideration of renewable energy development proposals.

The Strategy states regard should be had to certain plans and guidelines, e.g.

- Water Framework Directive and River Basin District Management Plans.
- Fisheries Ireland with particular reference to *"Guidelines on the Planning, Designing, Construction and Operation of small scale Hydro-Electric Schemes and Fisheries".* This document provides guidance on the development of hydro-electrical projects and associated impacts on fisheries;
- Rights of Way – land ownership rights. Renewable energy development can require agreements from neighbouring landowners in respect of supporting infrastructure, power lines etc.

The Strategy lists Environmental Considerations as follows;

- Drainage, surface water run-off and hydrology issues.
- Fish spawning and nursery areas as well as adult fish habitat – Construction and operational phases of renewable energy developments can have impacts on the fisheries resource and associated habitats if such developments are not undertaken in an environmentally sensitive manner;
- The management and control of invasive species;
- The maintenance of biodiversity not just in rivers, streams and lakes but also in the associated riparian zones and wetland areas;
- The impact of renewable energy on the conservation status of Natura 2000 sites.

Infrastructure Considerations

- Availability of grid infrastructure – proximity to grid and capacity of grid. If site is too far from a suitable grid connection, then the cost and impact of cabling may make the project unviable.
- General access during construction/ongoing maintenance etc.
- Licence to generate electricity.
- Power purchase agreements.
-

Socio-Economic Considerations

- Balancing with other land uses, e.g. Agriculture, Aquaculture, Tourism and Leisure, Fishing sites, Navigation routes;
- Impact on sensitive receptors including local residents, areas of tourism and landscape amenity value, material assets including the architectural and archaeological heritage, and the cultural heritage.

Proposals for renewable energy development will be subject to EIA and AA Screening as per policies and objectives in the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011-2017 and Dungarvan Town Plan 2012-2018.

v. the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).

The Renewable Energy Strategy is not a spatial land use plan but rather provides a framework to support objectives in the Waterford City Development Plan 2012-2018, Waterford County Development Plan 2011-2017 and Dungarvan Town Plan 2012-2018 and inform their future review. Where such plans provide a framework for development consent for projects these projects will be subject to EIA and AA Screening at project inception stage.

Characteristics of the Effects and of the Area Likely to be Affected

i. the probability, duration, frequency and reversibility of the effects

It is anticipated that the strategic aims and policy to be adopted as part of the Renewable Energy Strategy will ensure that the effects of the resulting changes to the existing operating environment will not be significant. The probability that these effects will be environmentally significant in negative terms is low.

ii. the cumulative nature of the effects

Cumulative negative environmental effects are not expected. As per the County Development Plan, the Council will assess all proposals for renewable energy development based on sustainable development principles. The Council will seek to protect the conservation status of Natura 2000 sites and in this regard all renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive, and where judged necessary a Natura Impact Statement shall be submitted. The Wind Energy Strategy was subject to SEA in 2008 and sensitivity classes amended on the basis of the SEA. Whilst Solar Power is a new land use and energy form in the county there are anticipated benefits for biodiversity with a

move from intensive agricultural practice to semi-natural type grassland which can be managed for enhanced biodiversity value.

iii. the transboundary nature of the effects

The Renewable Energy Strategy relates to Waterford City and County and thus will not incur transboundary effects. Renewable Energy developments will be screened for EIA and AA and transboundary effects where required.

iv. the risks to human health or the environment (e.g. due to accidents)

The Renewable Energy Strategy recognises the potential for impact on sensitive receptors including local residents. There is no statutory requirement for a developer to consult with the local community in respect of any renewable energy development proposal over and above the statutory requirements set out in the Planning & Development Act 2000 (as amended), i.e. a site notice, newspaper notice, public submission period and third party right of appeal to An Bord Pleanala.

However, the Strategy states the Planning Authority strongly encourages both developers and local communities to engage in meaningful consultation at the very early stages of the pre-planning process and ongoing throughout the planning process. Community engagement which continues through the construction and operation stages is highly recommended and will improve the likelihood of community acceptance of proposed renewable energy projects.

v. the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)

The area subject of the Strategy is the entire area of Waterford City and County. The population of this area is approximately 115,000

vi. the value and vulnerability of the area likely to be affected due to
- *special natural characteristics or cultural heritage;*

Waterford City Development Plan 2013-2019 and Waterford County Development Plan 2011-2017 identify the following protected areas/elements of the natural/cultural heritage:

- Protected Structures
- Sites of Archaeological Significance
- Areas with natural heritage designations

The Renewable Energy Strategy recognises the potential for impact on sensitive receptors including areas of tourism and landscape amenity value, material assets including biodiversity not just in rivers, streams and lakes but also in the associated riparian zones and wetland areas, the conservation status of Natura 2000 sites,the architectural and archaeological heritage, and the cultural heritage.

The Council will assess all proposals for renewable energy development based on sustainable development principles and will seek to protect the conservation status of Natura 2000 sites and in this regard all renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive, and where judged necessary a Natura Impact Statement shall be submitted.

The Strategy states regard should be had to the Water Framework Directive and River Basin District Management Plans and Fisheries Ireland *"Guidelines on the Planning, Designing, Construction and Operation of small scale Hydro-Electric Schemes and Fisheries".*

- *exceeded environmental quality standards or limit values;*

It is not expected that any environmental quality standards will be exceeded or that the value of vulnerable areas limited as a result of the Waterford Renewable Energy Strategy.

- *intensive land-use;*

The Renewable Energy Strategy is not a spatial land-use plan. Any projects arising within the framework of the Renewable Energy Strategy that require development consent under planning legislation will be required to comply with land use and environmental policy of the Waterford City and Waterford County Development Plans.

vii. the effects on areas or landscapes which have a recognised national, community or international protection status.

The Strategy recognises the importance of undertaking a Landscape Character Assessment for Waterford in accordance with national landscape guidelines [Objective ENV 1 of Waterford County Development Plan 2011-2017]. Any projects arising from the Renewable Energy Strategy that require development consent under planning legislation will be required to comply with land use and environmental policy of the Waterford City and Waterford County Development Plans.

Stage Three - Conclusions + Recommendation

Following the screening process, whereby the strategic aims, policy and strategic planning considerations (section 13) of the Renewable Energy Strategy have been assessed against the environmental significance criteria as contained in Annex II (2) of the SEA Directive**, it is concluded that a Strategic Environmental Assessment is not required for the Waterford Renewable Energy Strategy.**

Appendix 5 AA Screening Report

1. Introduction to the Habitats Directive and Article 6 Assessment

The aim of the European Habitats Directive (Council Directive 92/43/EEC on the conservation of wild habitats and of wild fauna and flora) is to create a network of protected wildlife sites in Europe, maintained at a favourable conservation status[26]. Each member state must designate their most important natural areas as Special Areas of Conservation. The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for damaging a site. The network of sites is referred to as NATURA 2000 and includes SACs (Special Areas of Conservation) for protected habitats and species and SPAs (Special Protection Areas) for protected birds.

The European Habitats Directive (Council of the European Communities 1992) was transposed into Irish legislation by the European Communities (Natural Habitats) Regulations 1997 and amended in 1998, 2005 and 2011. The Birds and Habitats) Regulations 2011 and (Part XAB) of the Planning and Development Act 2000 (as amended) , set out the obligations of planning authorities under the Birds and Habitats Directives.

Article 6 of the Habitats Directive provides a strict assessment procedure for any plan or project not directly connected with or necessary to the management of a designated European site but which has the potential to have implications for the site in view of the site's conservation objectives.

[26] The conservation status of a species can be taken as "favourable" when population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future and there is and will continue to be a sufficiently large habitat to maintain its populations on a long-term basis. Article 1 (i) of the Habitats Directive 92/43/EEC

The conservation status of a habitat can be taken as "favourable" when its natural range and area it covers within that range is stable or increasing and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

2. Guidance on the implementation of Article 6

The European Commission's guidance on the provisions of article 6(3) and 6(4) of the Habitats Directive sets out four stages for Appropriate Assessment.[27]

Stage 1. Screening — the process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant;

Stage 2. Appropriate assessment — the consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts;

Stage 3. Assessment of alternative solutions — the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

Stage 4. Assessment where no alternative solutions exist and where adverse impacts remain — an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

3. Procedure for stage one screening

This report consists of a screening of the strategic aims and policy of the Waterford Renewable Energy Strategy 2016-2030.

This stage examines the likely effects of the strategic aims and policy on Natura 2000 sites in Waterford and within a 15km radius of the county and considers whether it can be objectively concluded that these sites will not be significantly impacted. This assessment comprises four steps:-

<u>Step 1:</u> determining whether the project or plan is directly connected with or necessary to the management of the site: -

The local authority's policy arising from consideration of the legislative policy context, the existing energy profile of Waterford and the range of renewable energy technologies is as follows;

It is the policy of Waterford City and County Council to promote and support the development of renewable energy technologies most suited to Waterford, to seek to reduce

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[27] *Assessment of plans and projects significantly affecting Natura 200 sites- methodological guidance on the provisions of Article 6(3) and 6 (4) of the Habitats Directive 92/43/EEC.*
Managing Natura 2000 sites The provisions of Article 6 of the Habitats Directive 92/43/EEC.
European Commission (2002)

dependency on fossil fuels thereby enhancing the environmental, social and economic benefits to Waterford City and County.

The policy is not directly connected to the management of any Natura 2000 sites.

Step 2: describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site;

The strategic aims of the Renewable Energy Strategy are;

- To ensure that between now and 2030, there is a steady, progressive and measurable increase in the amount of renewable energy used in the electricity, heat and transport sectors in Waterford, commensurate with the achievement of the national target.
- To identify opportunities for various renewable energy technologies and resources applicable to Waterford.
- To maximise the opportunities for renewable energy development whilst safeguarding the environment and other amenities, subject to Strategic Environmental Assessment and Habitats Directive Assessment requirements.

The Strategy does not identify site specific locations with regard to suitability for the range of renewable energy technologies . The County Waterford Wind Energy Strategy was subject to SEA in 2008 and sensitivity classes were amended to extend a No-Go area in the basis of potential significant impacts on the River Licky Freshwater Pearl Mussel Catchment.

Step 3: Identifying the potential effects on the Natura 2000 site;

The DoEHLG Guidance on Appropriate Assessment on Plans and Projects in Ireland (December 2009) states that all N2000 sites within or adjacent the county must be mapped and tabulated, and site integrity and site conditions necessary to support the site integrity must be indicated.

The information presented in Table 1 comprises a breakdown of Natura 2000 sites within Waterford. The N2000 sites are listed by designation; Special Areas of Conservation / Special Protection Areas. The following information is listed for each N2000 site:

- Site code
- Site name
- Qualifying interests
- Conservation objectives
- Threats to site integrity

Table 2 details sites outside Waterford but within a 15km buffer zone of the county.

<u>Step 4:</u> Assessing the significance of any effects on the Natura 2000 site.

The screening stage involves application of the precautionary principle proportional to the policy/objective and the Natura 2000 site in question. The proposed strategic aims and policy and their potential impact on the N2000 have been screened to ascertain if the Renewable Energy Strategy is likely to have significant effects on any Natura 2000 sites, using the following framework.

- N2000 site
- Qualifying interests
- Threats to site integrity
- Potential impacts from proposed policy
- Risk of significant impact (Y/N)
- Potential 'in combination' impacts
- Risk of significant impacts (Y/N)
- Avoidance and (then) mitigation measures
- Action required: objective/action change needed / rewording /

Where no significant effects are found, the Strategy is accepted and a Finding of no Significant Effects Report is concluded and no further assessment is required.

Where the proposed policy does have a significant effect, then the policy needs to be amended or rejected and a Stage 2 Appropriate Assessment is required.

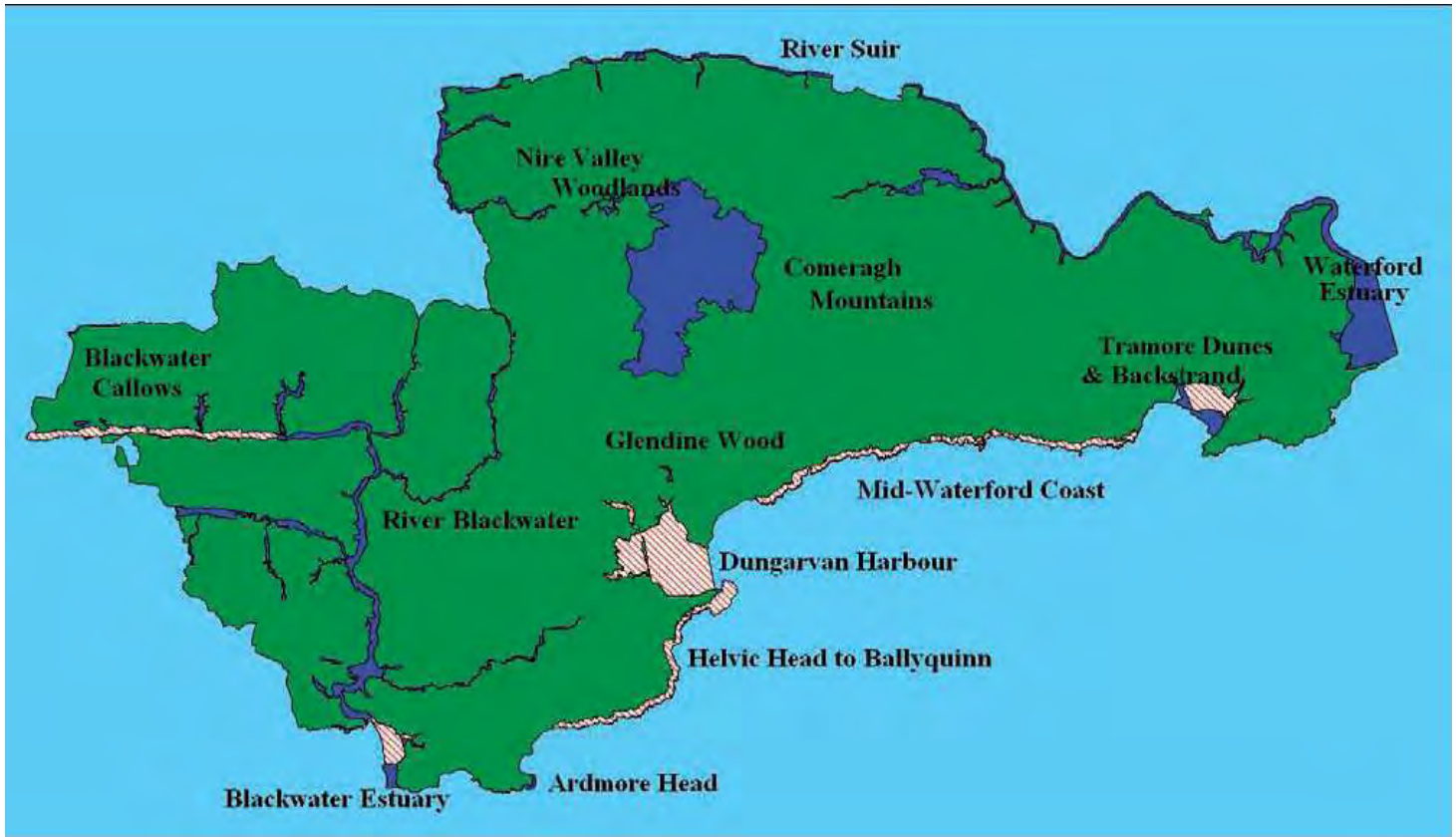

River Suir
Nire Valley Woodlands
Comeragh Mountains
Waterford Estuary
Tramore Dunes & Backstrand
Blackwater Callows
Glendine Wood
Mid-Waterford Coast
River Blackwater
Dungarvan Harbour
Helvic Head to Ballyquinn
Ardmore Head
Blackwater Estuary

Table 1: Natura 2000 sites within Waterford

Waterford		Special Areas of Conservation (SACs)	
Site code Site name	**Qualifying interests**	**Conservation objectives**	Threats to site integrity
0002137 Lower River Suir	Alluvial Wet Woodlands and Yew Wood, Floating River Vegetation, Atlantic Salt Meadows, Old Oak Wood and Eutrophic Tall Herbs Sea Lamprey, Brook Lamprey, River Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Obstructions, impassable weirs, gross pollutants, specific pollutants, channel maintenance, man-made barriers to migration, eutrophication, leisure fishing drift netting, use of pesticides, fertilisation, removal of hedges and copses, removal of scrub, felling of native or mixed woodland, professional fishing(including lobster pots and fyke nets)hunting, trapping, poisoning, poaching, sand and gravel extraction, mechanical removal of peat, urbanised areas, human habitation, continuous urbanisation, industrial or commercial areas, discharges, disposal of household waste, industrial waste, inert materials, other discharges, routes, autoroutes, bridge, viaduct, water pollution, other forms of pollution, infilling of ditches,

			dykes, pods, pools, marshes or pits, drainage, management of aquatic and bank vegetation for drainage purposes, removal of sediments, canalisation or modifying structures of inland water course Overgrazing,infilling and reclamation, inappropriate grazing levels and invasive species, clearance for agriculture or felling for timber, planting of non-native conifers, Increased development
002123 Ardmore Head	Dry coastal heath and vegetated sea cliffs.	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Amenity use, residential and other development in adjacent areas, encroachment of scrub
000072 Blackwater River (Cork/Waterford)	Estuary, Mudflats, Shingle Banks, Salt Meadows, Floating River Vegetation, Old Oak Woods, Alluvial Woodland, Yew Woodland, Freshwater Pearl Mussel, White-clawed Crayfish, Shad, Lampreys, Salmon, Otter, Killarney Fern	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. To restore the favourable conservation condition of the Freshwater Pearl Mussel in the Blackwater River SAC.	Professional fishing, taking of flora, fauna, Water pollution, climate change, change in species composition, aquaculture, bait digging, aggregate extraction, industrialisation, port/marina, communications networks, water pollution, reclamation of land, coastal protection works, invasion by a species,

			erosion and accretion, overgrazing, infilling and reclamation, inappropriate grazing levels, clearance for agriculture or felling for timber, increased development Obstructions, impassable weirs, channel maintenance, barriers, eutrophication, leisure fishing, drift netting use of pesticides, fertilisation, removal of hedges and copses, removal of scrub, felling of native or mixed woodland, professional fishing(including lobster pots and fyke nets)hunting, trapping, poisoning, poaching, sand and gravel extraction, mechanical removal of peat, urbanised areas, human habitation, continuous urbanisation, industrial or commercial areas, discharges, disposal of household waste, industrial waste, inert materials, other discharges, routes, autoroutes, bridge, viaduct, water pollution, other forms of pollution, infilling of ditches, dykes, pods, pools, marshes or pits, drainage, management of aquatic and bank vegetation for drainage purposes, removal of sediments, canalisation or modifying structures of inland water

			course Collection of samples, outdoor recreation, woodland clearance, overgrazing, hydrocarbons, global warming, climate change, modifications to the hydrology of sites through afforestation, road development or hydro-electric engineering. Air pollution
001952 Comeragh Mountains	Blanket bog, Dry, Wet and Alpine Heath, Rocky Slopes, Oligotrophic Lakes, Floating River Vegetation, Shining Sicklemoss	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Agriculture, burning, sand and gravel extraction, urbanisation, industrialisation, acidification, tropospheric ozone and nitrogen enrichment caused by atmospheric deposition Abandonment, overgrazing, burning, quarrying, outdoor recreation
002324 Glendine Wood	Semi-natural Woodland with rare assemblages of Ground Flora.	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Collection of samples, outdoor sport and leisure, human disturbance in localities used for recreational purposes. Woodland clearance, overgrazing, natural processes such as wind felling of trees. Modifications to the hydrology of a site through afforestation, road development or hydro-electric engineering, water pollution, air pollution, hydrocarbons,

			global warming, climate change
000665 Helvick Head	Vegetated Sea Cliffs and Dry Heath.	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Agriculture, burning, sand and gravel extraction, urbanisation, industrialisation, acidification, tropospheric ozone and nitrogen enrichment caused by atmospheric deposition
000668 Nier Valley Woods	Old Oak Woodlands and Dry Heath	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Inappropriate grazing levels and invasive species, clearance for agriculture or felling for timber, planting of non-native conifers Agriculture, burning, sand and gravel extraction, urbanisation, industrialisation, acidification, tropospheric ozone and nitrogen enrichment caused by atmospheric deposition
002162 River Nore and River Barrow (Waterford Estuary)	Estuary, Mudflats, Salt Meadows, Floating River Vegetation, Dry Heath, Marginal River Vegetation, Petrifying Springs, Old Oak Woods, Alluvial Woods, White-clawed Crayfish, Freshwater Pearl Mussel, Whorl snail, Shad, Lampreys, Salmon, Otter, Killarney Fern	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	 See above under County Carlow
00671	Mudflats and sandflats, shingle banks, salt	To maintain or restore the favourable conservation condition of	Erosion, walking, horseriding and non

Tramore Dunes and Back Strand	meadows, embryonic, white and fixed dunes.	the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	motorised vehicles, trampling, overuse, sea defence or coastal protection works, undergrazing, invasion by a species, camping and caravans, agricultural improvement, stock feeding, overgrazing, paths, tracks, cycle routes, golf courses, restructured agricultural land holding, disposal of household waste, sand and gravel extraction, other pollution or human activities, aquaculture, professional fishing, bait digging, removal of fauna, aggregate extraction, removal of beach material, industrialisation, port/marina, communication networks, water pollution, reclamation of land,
		Special Protection Areas (SPAs)	
Site code Site name	**Qualifying interests**	**Conservation objectives**	**Threats to site integrity**
Tramore Backstrand	Brent Geese, Golden Plover, Grey Plover, Black-tailed Godwit, Bar-tailed Godwit, Lapwing, Dunlin, Sanderling,	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Disturbance, Water Quality, Invasive Species
Dungarvan Bay	Brent Goose, Black-tailed Godwit , Bar-tailed Godwit, of international importance Nationally important numbers of Shelduck, Wigeon, Red-breasted Merganser, Grey	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Disturbance, Water pollution, climate change, change in species composition, aquaculture, bait digging, aggregate extraction, industrialisation, port/marina, communications networks, water

	Plover, Golden Plover, Lapwing, Knot, Sanderling, Dunlin, Redshank and Turnstone		pollution
Blackwater Callows	Whooper swan, Bewick's Swan, Golden Plover, Kingfisher	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Disturbance, change in agricultural practices
Blackwater Estuary	Little Egret, Golden Plover, Bar-tailed Godwit, Sandwich Tern, Roseate Tern, Common Tern	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Disturbance, Water pollution
Helvick Head Coast	Peregrine, Chough Kittiwake and Guillemot	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Development, Change in agricultural practices, agricultural abandonment, encroachment of scrub, loss of close-sward grazing,
Mid-Waterford Coast	Peregrine, Chough	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Development, Change in agricultural practices, agricultural abandonment, encroachment of scrub, loss of close-sward grazing,

Table 2: Natura 2000 sites within 15km of Waterford

County Cork		Special Areas of Conservation (SACs)	
Site code Site name	**Qualifying interests**	**Conservation objectives**	Threats to site integrity
Ballymacoda Bay SPA	Estuaries, salt meadows, mudflats and sandflats	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	Professional fishing, taking for fauna, taking for flora, water pollution, climate change, change in species composition, Invasive Species, Erosion and accretion, Aquaculture, professional fishing, bait digging, removal of fauna, aggregate extraction;(removal of beach material, industrialization, Port/Marina, communications networks, water pollution, reclamation of land, coastal protection works, invasion by a species
000072 Blackwater River (Cork/Waterford)	Estuary, Mudflats, Shingle Banks, Salt Meadows, Floating River Vegetation, Old Oak Woods, Alluvial Woodland, Yew Woodland, Freshwater Pearl Mussel, White-clawed Crayfish, Shad, Lampreys, Salmon, Otter, Killarney Fern	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	See County Waterford above

5. Screening Assessment

Table 4 presents issues concerning the conservation status of the larger Natura 2000 sites and species where they occur in Waterford

Table 4. Habitats Directive Assessment Matrix to determine nature of risk of significant effects on SACs and SPAs.

Natura 2000 Site SAC	Pressure Topic	Possible impacts from Proposed Policy	Risk of Significant Impact	Mitigation measure
Lower River Suir	Water quality Waste Water Treatment (EPA classify Lower Suir Estuary trophic status as Intermediate, Upper Suir Estuary as Eutrophic)[28]	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Blackwater River	Water Quality and Waste Water Treatment (EPA classify trophic status as eutrophic in	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated

[28] Ireland's Environment 2008 (EPA)

	both Upper and Lower Blackwater Estuary)			
River Nore and River Barrow including Waterford Estuary	Water quality (EPA list trophic status as Intermediate) Waste Water Treatment	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Tramore Dunes and Back Strand	Recreational Pressure	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Comeragh Mountains	Recreational Pressure	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Natura 2000 Site **SPA**	**Pressure Topic**	**Possible impacts from** **Proposed policy**	**Risk of Significant** **Impact**	**Mitigation measure**
Helvick Head Coast	Disturbance	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Mid-Waterford Coast	Disturbance	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated

Dungarvan Bay	Water quality Waste Water Treatment (EPA classify trophic status as Intermediate. SERBDMP state the area requires restoration to reach good status under the WFD by 2015).	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Tramore Back Strand	Disturbance	No significant impacts anticipated	No significant impacts anticipated	No significant impacts anticipated
Annex II species	**National Conservation Status[29]**	**Threats to Conservation Status on a national level**		**Comment/ Mitigation measure**
Freshwater Pearl Mussel	Bad	Water quality		No significant impacts anticipated
Killarney Fern	Good	Modifications to the hydrology of Killarney Fern sites through afforestation, road development		No significant impacts anticipated
Salmon	Bad	Water quality		No significant impacts anticipated

[29] The Status of EU Protected Habitats and Species in Ireland DoEHLG 2008

Crayfish	Poor	Water quality	No significant impacts anticipated
Twaite Shad	Bad	Water quality	No significant impacts anticipated
Otter	Poor	Water quality Clearance of riparian vegetation	No significant impacts anticipated
River Lamprey	Good	Water quality	No significant impacts anticipated
Sea Lamprey	Poor	Weirs and Channel maintenance	No significant impacts anticipated

5.2 Potential Impacts and Mitigation

The Renewable Energy Strategy has had regard to national guidelines and policy documents. Section 13 - Strategic Planning Considerations of the Strategy clearly sets out the breadth of environmental criteria that are required to inform consideration of renewable energy development proposals.

The Strategy states regard should be had to certain plans and guidelines, e.g.

- Water Framework Directive and River Basin District Management Plans.
- Fisheries Ireland with particular reference to *"Guidelines on the Planning, Designing, Construction and Operation of small scale Hydro-Electric Schemes and Fisheries".*
-

The Strategy lists Environmental Considerations as follows;

- Drainage, surface water run-off and hydrology issues.
- Fish spawning and nursery areas as well as adult fish habitat – Construction and operational phases of renewable energy developments can have impacts on the fisheries resource and associated habitats if such developments are not undertaken in an environmentally sensitive manner;
- The management and control of invasive species;
- The maintenance of biodiversity not just in rivers, streams and lakes but also in the associated riparian zones and wetland areas;
- The impact of renewable energy on the conservation status of Natura 2000 sites.

6. Impacts on Natura sites within 15km of County Waterford

There is 1 Natura 2000 site located within 15km of County Waterford- Ballymacoda Bay in Co. Cork and it will not be directly affected by the policy in the Renewable Energy Strategy.

All the River SACs within Waterford (Blackwater, Lower River Suir, Barrow and Nore,) traverse the county boundary with Counties Cork, South Tipperary and Kilkenny. All renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive

7. Conclusion

A Habitats Directive Screening Assessment was carried out on the Waterford Renewable Energy Strategy involving review of conservation objectives and threats to site integrity for the range of Natura 2000 sites in Waterford

The strategic aims of the Renewable Energy Strategy include;

To maximise the opportunities for renewable energy development whilst safeguarding the environment and other amenities, subject to Strategic Environmental Assessment and Habitats Directive Assessment requirements and the Strategic Planning Considerations of Section 13 states the Council will seek to protect the conservation status of Natura 2000 sites and in this regard all renewable energy proposals which require planning permission will be screened for Appropriate Assessment in accordance with Articles 6(3) & 6(4) of the Habitats Directive and Section 177(v) of the Planning and Development Act 2000 as amended.

Thus, it is not considered the Renewable Energy Strategy will give rise to significant effects on Natura 2000 sites in Waterford City and County. This assessment should be read in conjunction with the Draft Renewable Energy Strategy and the accompanying SEA Screening Statement prepared in fulfilment of the SEA process.

Appendix 8

Landscape and Seascape Character Assessment

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Development Plan 2022-2028

Appendix 8

Landscape and Seascape Character Assessment, Scenic Routes and Protected Views

1. Landscape Protection -Legal Context

The Planning and Development (Amendment) Act 2010 specifies that development plans shall contain particular objectives relating to landscape, including objectives in accordance with '*relevant policies or objectives … relating to providing a framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention'*. The National Landscape Strategy 2015 – 2025 aims to implement the European Landscape Convention (2000) in Ireland by providing for specific measures to promote the protection, management and planning of the landscape. Actions in the Strategy include development of a National Landscape Character Assessment, statutory guidelines on local Landscape Character Assessments and preparation of Landscape Character Assessments at local authority level.

Landscape Character Assessment is the process of understanding and documenting the range of factors that contribute to the unique physical identity of a particular geographical area. It acknowledges that distinct areas have different capacities to accommodate change that can impact on that particular landscape character and this is understood as landscape sensitivity. Land-uses are constantly changing in response to socio-economic demands and the aesthetic response of viewers varies and may change over time, as a society's cultural sensibilities evolve. Landscape sensitivity and impact from change needs to be assessed from a range of criteria that can include tangible and intangible e.g. ecology, archaeology water quality, climate impacts, architecture, history, noise, odours, emotions and perceptions. Assessment of landscape impact is underpinned by the recognition that landscape always has and always will change.

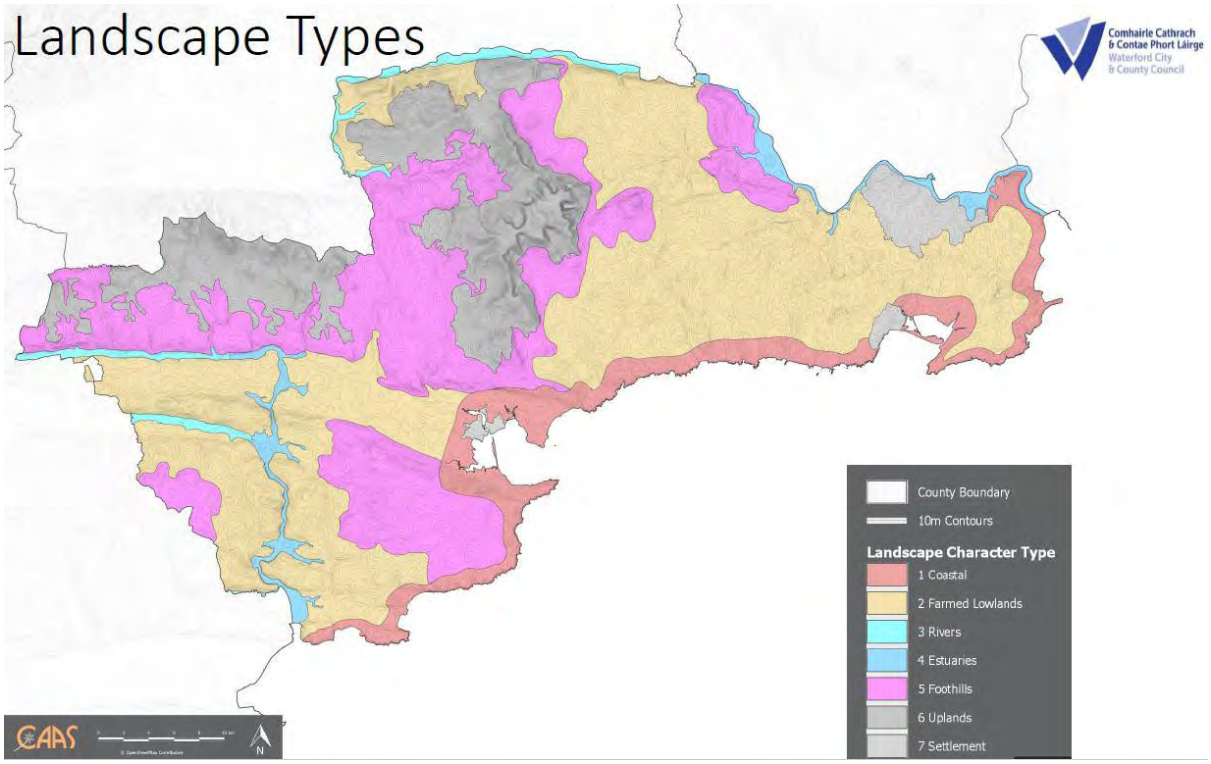
The EPA Guidelines (Draft 2017) on information to be contained in Environmental Impact Assessment Reports states EIARs need to consider assessment of impacts on; Landscape Appearance and Character, Landscape Context , Views and Prospects and Historical Landscapes.

2. Waterford Landscape Character Assessment

Waterford City and County Council commissioned a Landscape and Seascape Character Assessment in 2019 to inform review of the City and County Development Plan 2022-2028.

The objective of this assessment is to assist in development management by providing criteria for decision making based on a systematic and scientific methodology and alerting applicants and designers to the need for special requirements in certain areas for landscape fit or design to facilitate the integration of development in a particular landscape character type or area.

The 2020 Waterford Landscape Character Assessment identified seven landscape character types as illustrated in Map A8.1.



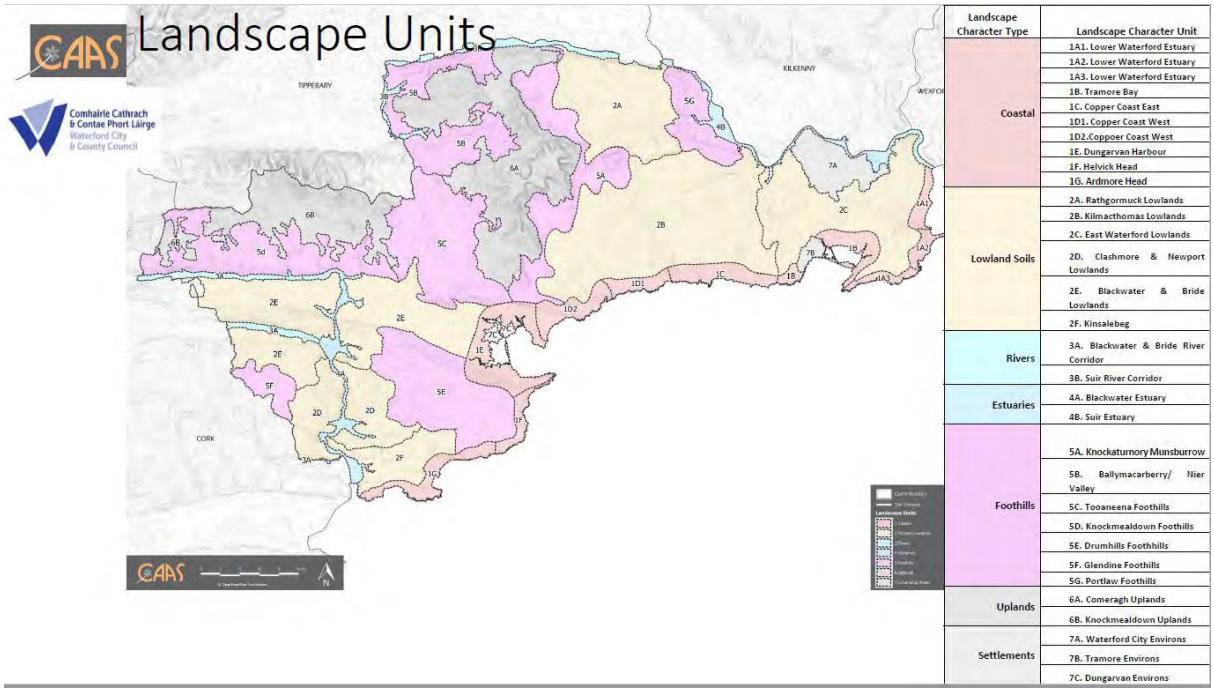
Map A8.1. Landscape Character Types

These seven landscape character types encompass the following landscape character units as detailed below and illustrated in Map A8.2

Table A8.1 Landscape Character Units in Waterford

TYPE	KEY	NAME
1.Coastal Landscapes	1A	Lower Waterford Estuary
	1B	Tramore Bay
	1C	Copper Coast East
	1D	Copper Coast West
	1E	Dungarvan
	1F	Helvic Head
	1G	Ardmore Head
2. Farmed Lowland Landscapes	2A	Rathgormack Lowlands
	2B	Kilmacthomas Lowlands
	2C	East Waterford Lowlands
	2D	Clashmore and Newport Lowlands
	2E	Blackwater and Bride Lowlands
	2F	Kinsalebeg
3. River Corridor Landscapes	3A	Blackwater and Bride River Corridor
	3B	Suir River Corridor
4. Estuaries	4A	Blackwater Estuary
	4B	Suir Estuary
5. Foothill Landscapes	5A	Knockaturnory Munsboro
	5B	Ballymacarbry/Nire Valley
	5C	Tooraneena Foothills

	5D	Knockmealdown Foothills
	5E	Drumhills
	5F	Glendine
6. Upland Landscapes	6A	Comeragh Mountains
	6B	Knockmealdown Mountains
7. Urbanising Landscapes	7A	Waterford City Environs
	7B	Tramore Environs
	7C	Dungarvan Environs



Map A8.2. Landscape Character Units

3. Landscape Capacity and Sensitivity

3.1 Capacity to Absorb Development

The Landscape Character Assessment classifies areas within Waterford City and County according to their capacity to absorb development without changing the distinctiveness and character of that particular landscape type. A landscape that could readily absorb development without disproportionately affecting the landscape is considered to be an area of least sensitivity. Areas where a development could easily cause a change in the character of the landscape and have impact over a wide area would be an area of most sensitivity.

The capacity of an area to visually absorb development is influenced by a combination of the following factors:

1*) Topography*-development in elevated areas will usually be visible over a wide area; development in enclosed areas will not.

2) *Vegetation* - areas which support (or which have the potential to support) trees, tall hedges and woody vegetation can screen new development from view. Areas which cannot easily sustain such vegetation will be unlikely to screen new development.

3) *Development* - New development is less likely to be conspicuous in the context of existing development in the landscape.

Taking the above into account all development proposals must satisfy site suitability and technical considerations, including;

- Availability of adequate infrastructure;
- Landscaping and screening;
- Degree to which it will give rise to ribbon development / suburbanisation of the countryside;
- The height, scale, bulk, massing, finishes and detailed design;
- Suitability of site layout;
- Availability of adequate sight distances at vehicular entrance;
- Ability to safely treat the wastewater arising from the proposed development, on site according to best practice;
- Natural Heritage, Archaeology and Built Heritage Assessments and
- Degree to which site development works will scar the landscape / result in a site with excessive gradient.

Areas where enclosing topography, screening vegetation and/or existing development are present, should have a high potential to absorb new development. Areas of elevated topography, with low growing or sparse vegetation, with little existing development should have a low potential to absorb new development.

3.2 Disproportionate Visual Impacts

Every landscape can be affected to some degree by new developments. For the purpose of development management, it is important to appraise the extent of the land affected by the visual impacts of the proposed development. It is reasonable to assume that any evaluation of the visual impact of a proposed development should have regard to whether the area of the visual impact has been adhered to to a reasonable minimum, so that a development does not impose disproportionate effects on the community and wider environs.

Skyline ridges, hill and mountain tops, coastlines, promontories, headlands, lake shores and banks of large rivers are all conspicuous features in the landscape. The eye is strongly drawn to such features, principally because strong contrasts of colour and form occur along these lines of contact between the land and the sky or water. New development on or in the vicinity of such natural features has a significant potential to be conspicuous over a wide area. It is accepted that these landscape features have an extremely low potential to absorb new development without causing disproportionate visual impacts.

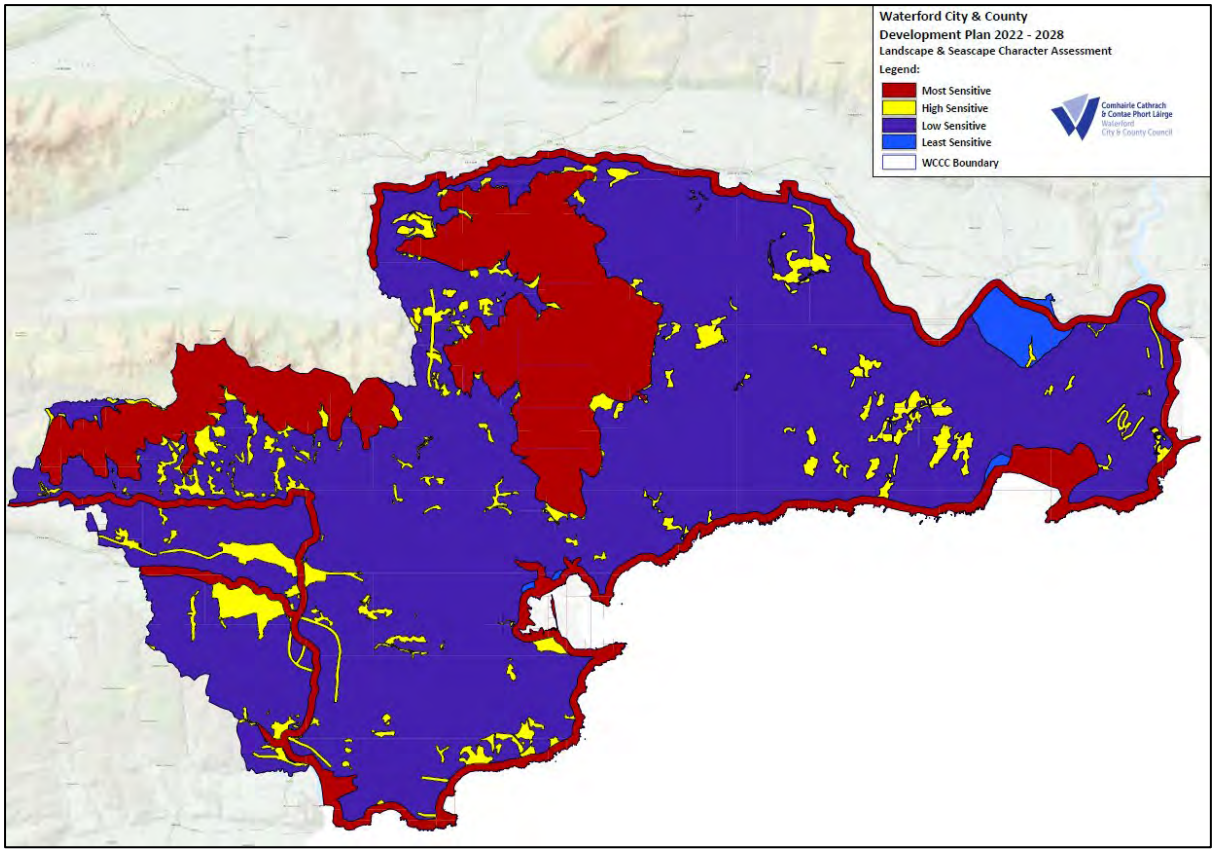
3.3 Degrees of Sensitivity

The landscape is made up of a series of compartments each of which has a distinctive character. Each unit of character is assigned an indicator of sensitivity, which indicates the extent to which the landscape will be vulnerable to change in its character. The categories will reflect the criteria of the capacity to absorb new development as well as the potential to create disproportionate visual impacts. Each unit of character can then become the focus of policy or development control.

The categories in the **Sensitivity Zoning Key** are as follows:

Table A8.2. Sensitivity Classifications

1. Most Sensitive	Very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area.
2. High Sensitivity	Distinctive character with some capacity to absorb a limited range of appropriate new developments while sustaining its existing character.
3. Low Sensitivity	A common character type with a potential to absorb a wide range of new developments.
4. Least Sensitive	Areas of existing development and infrastructure. New development reinforces existing desirable land use patterns.



Map A8.3. Landscape Sensitivity

4. Landscape Sensitivity Guidelines

4.1(a) Most Sensitive Areas

Landscape Character Areas and features designated as Most Sensitive represent the principal features which create and sustain the character and distinctiveness of the surrounding landscape. To be considered for permission, development in or in the environs of these areas must be shown not to impinge in any significant way upon its character, integrity or uniformity when viewed from the surroundings. Particular attention should be given to the preservation of the character and distinctiveness of these areas as viewed from scenic routes and the environs of archaeological and historic sites.

4.1(b) Areas Designated as Most Sensitive

The coastline, all headlands and promontories.
The banks of the rivers;
The shoreline of all lakes;
The skylines of upland areas;

4.2(a) High Sensitivity Areas

These areas have a distinctive, homogenous character, dominated by natural processes. Development in these areas has the potential to create impacts on the appearance and character of an extensive part of the landscape. Applications for development in these areas must demonstrate an awareness

of these inherent limitations by having a very high standard of site selection, siting layout, selection of materials and finishes.

4.2(b) Main Areas Designated as High Sensitivity

- Intertidal flats;
- Coastal lagoons;
- Agricultural lands with significant areas of natural vegetation;
- Sparsely vegetated areas;
- Beaches, dunes and sands;
- Inland and salt marshes;
- Bare rocks;
- Transitional woodland scrub;
- Broad leaved forest;
- Peat bogs; and
- Natural grassland.

4.3(a) Low Sensitivity Areas

A large area of County Waterford is designated as a landscape of low sensitivity. These areas have potential to absorb a wide range of new developments subject to normal planning and development control procedures. In these areas the Planning Authority will have regard to general restrictions to development such as scenic routes, siting, road set backs, road widening plans, parking numbers, road and sewage disposal criteria.

4.3 (b) Areas Designated as Low Sensitivity

- Pasture Land
- Coniferous Plantations

4.4(a) Least Sensitive Areas

A small area of Waterford City and County is designated least sensitive to landscape change. These are areas of concentrated existing development and infrastructure. Appropriate new development in these areas can reinforce the existing desirable landuse patterns. Regard shall be had to site development standards namely density, building lines, height of structures and design standards. The overall aim is to ensure that the inherent character of city /town environs and town and village centres is maintained.

In least sensitive areas:

(a) New development shall sustain and reflect the character of the area;

(b) Frontages on to the existing streets shall reflect the character of the street through careful design and use of materials; and

(c) Development should reflect the character of the townscape generally but fresh approaches to design will be considered.

(d) New development should be encouraged as a means of improving the existing character of such areas.

4.4 (b) Areas Designated as Least Sensitive

- Continuous Urban Fabric
- Discontinuous Urban Fabric
- Industrial or Commercial Units
- Airports

Table A8.3. Sensitivity classifications and areas

Sensitivity Class	Description	Landscape type	Landscape Character Area	Location
1. Most Sensitive	Very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area.	The coastline	1A.Lower Waterford Estuary 1B.Tramore Bay 1C.Copper Coast East 1D.Copper Coast West 1E.Dungarvan 1F.Helvic Head 1G.Ardmore Head 4A. Blackwater Estuary 4B. Suir Estuary	All beaches and strands, including headlands and promontories, from Waterford Harbour to East Point.
		The banks of rivers	3A.Blackwater and Bride River Corridor 3B. Suir River Corridor	The banks of the rivers Blackwater, Bride, Nire, Owenashad and Suir.
		Lake shorelines		Belle Lake, Ballyscanlan, Ballinlough, Coumshingaun, Crotty's Lake, Sgilloge Lakes, Lough Coumfea.
		The skylines of upland areas	6A.Comeragh Mountains 6B.Knockmealdown Mountains	The Pike, Knockaun, Coolowen, Ballyneety, Knocknalough, Knockadullaun, Knockcorragh, Knocknaboul, Knockaunarast, Monatarriv Knockaunabulloga, Southern slope of Sugarloaf Hill, Knockaunagnauv, Knocknafallia, Knockmeal Knockanask, Curraheenavoher Hill, Laghtnafrankee Long Hill, Raven's Rock, Shauneenabrega, Moanyarha, Knockanaffrin, Crotty's Rock, Knockeen, Milk Hill, Coumfea, Knockaunapeebra, Comeragh Mtn. Fauscoum, Foilaunaprisoon, Seefin, Coumaraglin Mtn. Farbreaga, Crohaun,

				Knockacomortish, Monacalee, Kilnafarna Hill, Knockaunaboullaga.
2.High Sensitivity	Distinctive character with some capacity to absorb a limited range of appropriate new developments while sustaining its existing character.	Intertidal flats and coastal lagoons; Beaches, dunes and sands; Inland and salt marshes		Clohernagh along the northern side of Back Strand, Dungarvan Harbour: - North: Abbeyside to Kilminnin to Ballynacourty Point - South: Cunnigar point to Ballynagaul Kinsalebeg to Ardsallagh Tramore Bay Clashanahy, adjacent to Whiting Bay, Killongford Bridge on the southern side of Dungarvan Harbour, Bunmahon Bay. Inland Marshes: At Snugborogh on the banks of the River Bride, At the confluence of the Bride and the Blackwater.
		Lakes		Cappagh, Monaneea, Kilmaloo, Ballylough, Ballyscanlan Lake at Ballymorris, Carrickavranty and Fenor.
		Hills	5A.Knockaturnory Munsboro 5B.Ballymacarbry/Nire Valley 5C.Tooraneena Foothills 5D.Knockmealdown Foothills 5E.Drumhills 5F.Glendine	Ardsallagh Hill, Ballycondon Hill, Coolnabeasoon, Barranashigaun, Croughan Hill, Dyrick, Knocknamona, Slievegrine Hill, Curraghballintlea, Carronadavderg.

		Transitional woodland scrub and semi-natural grassland		Dunhill Lower, Raheens, Ballyrohin, North of Ballygarron between Kilbunny Wood and Glenhouse Wood, Mount Bolton, South of Georgestown, East of Graiguearush, Knockanacullin, Ballindysert and Sheskin, Kilrossanty, On the shores of the Dalligan river west of Ballynevoga, From Bohadoon north to Kilbrien and Carrigataggle, Curraghnamadree, Knockroe and Garrydon, South-east of Millstreet, north of Soldiers Cross Roads, Ballysaggartbeghill, South of Kilbeg, North-west of Carncrow, North-wwest of Kinsalebeg, Knocknamona at Woodhouse Cross Roads, South of Johnstown House, Ballycullane House and North of Mountstuart, South of Monagally and Reanaboola, Carronadavderg and Lickybeg, Toor South, Monameen, North of Carrigeen, Gorteen. Knockroe. Mount Beresford Brownstown Head Monamintra Carrickphilip Ballinlough Croughaun Crotty's Rock Coumshingaun Kilclooney Graiuearush Davmore Comeragh mtn. Farbreaga Boolatin Dalligan Bridge Ballintlea Carrigataggle Glendalligan Carricknafinnoge Knockacomortish Knockavanna Knocknaree Curraheen Glenpatrick Shauneenabreaga Glendalough Knockgow Byrick Knocknanask Gowlaun Knocknahoola Monacalee Knockaunabouchala

		Broad leaved forest		Portlaw Wood, Curraghmore, Gardenmorris, Dromana Forest, Kilahally, Monaman Headborough, Harristown, Ballygarron.
		Peat bogs		Laghtnafrankee ,Glenpatrick, Glendalough, Curragheenavoher, Crow Hill, Shauneenabreaga, Knockanaffrin, The Gap, Coolingady, Knockacomortish, Crotty's Rock, Knockaunabulloga, Knockmealdowns,Knockanask , Moanyarha.
		Moor and Heathland		Harney Cross Rd.s Glendalough Knockanaffrin Glennanore Lyre Knockavanna Tooreen Shanballyanne Knockeen, Knockaunapeebra, Seefin, Coumalocha Foilanaprisoon, Bleantasour Bearnamaddra Ballynevoga Ballintaylor Knocknamona Byrick Knockboy Mount Mellary
3 Low Sensitivity	A common character type with a potential to absorb a wide range of new developments.	Pasture Land	2A.Rathgormack Lowlands 2B.Kilmacthomas Lowlands 2C.East Waterford Lowlands 2D.Clashmore and Newport Lowlands 2E.Blackwater and Bride Lowlands Kinsalebeg	The majority of the County consists of pasture land with the exception of large pockets at the Knockmealdown, Comeragh and Monavullagh Mountain ranges, the area south of Dungarvan Harbour, South of Tallow, Waterford City and around Portlaw.
		Coniferous Plantations		North of Ballydavid House / East of Callaghane Bridge, South of Monamintra, Around Ballyscanlan Lake, Kill, North-west of Savagetown Cross Roads, West of Carrickphilip, Ballygarron, South of Cullenagh, Glenhouse Wood, Beallough, Portlaw Wood, Kilbunny Wood, Tower Hill, Clashroe, Curraghballintlea, Brownswood and Fiddown, Robertstown, Whitestown Cross Roads, Croughan Hill, Crehaunagh, Coolnamuck Wood, Gurteen le Poer Wood,

				Tinkincor Wood, North of the Punchbowl, Clondonnell, Southwest of Knocknarea, East of Coumduala Lake, Southern shore of Coumshingan, South of Shauneenapeebra, From Furraleigh along the R676 to the road West to Coumshingan, Ballybrack, Slievenamona, Gortnalaght, South-west of Lyre, Briska, Comeragh Mountain to Boolatin, Glendalligan Wood, Carricknafinnoge, South of Mount Kennedy at Carrigmorna and between Downey's Cross and Durrow Cross, Boheraval Cross Roads, North of Monarud, Knockacomortish, North of Knockaunagloom, North of Milk Hill at Knockavanna, North-west and South-east of Tooreen, North of Shanballyanne and Craignagower / Ballymacarbry on the banks of the Nire, Mountneill Wood, Caherbaun, Curragheenavoher Hill, Boolabrien, South of Knockgow, Boulavonteen, West of Ballynamult, West of Byrick, Tooranaraheen, Coolagorthboy, Ardnagunna, Glenshelane, Crow Hill, On the shores of the Glenafallid and Glenshelane Rivers, East and south slopes of Knockafallia, Knocknabulloga, Along the Owenshad River, North of Knockadullaun, East and south of Curragheenav, Labbanacallee, Lyregloch, Gortnapeaky, The banks of the River Bride at the Cork border, North of Kilnacarriga and east of Ballyspick, South-west of Kilbeg, Coolbeggan, Corradremaun Cross Roads, West of Strancaly Castle, Boola and North of

				Carriglass, Dromore, Ballycullane, Knocknamona, Western slopes of Knockaunabouchala, East of Mountstuart, Slievegrine Hill, Knocknahoola, East of Monaculee, Gorteen, Lagnagoushee, South of Moonbrack, Monamraher, Carrigeen Kearagulee, Carronadavderg, South of Lickybeg, Toor South, West of Glenlicky and Grally Bridge on the shores of the Licky River, Ballymacart Bridge. Coolbeggan, Deerpark Hill.
4 Least Sensitive	Areas of existing development and infrastructure. New development reinforces existing desirable landuse patterns.	Continuous Urban Fabric	7A.Waterford City Environs 7B.Tramore Environs 7C. Dungarvan Environs	Waterford City, Dungarvan, Tramore, Clonmel Environs, Carrick-on-Suir Environs.
		Discontinuous Urban Fabric		Waterford City, Dungarvan, Carrick-on-Suir Environs, Clonmel Environs, Cheekpoint, Dunmore East, Tramore, Kilmacthomas, Cappoquin, Lismore, Tallow, Ardmore.
		Industrial or Commercial Lands		Ballyneashagh West of Waterford City, Abbeyside East of Dungarvan.
		Airports		Waterford Regional Airport

5. Scenic Routes and Protected Views

Scenic routes and protected views indicate public roads and viewing points from which views and prospects of areas of natural beauty and interest can be enjoyed. Sightseeing visitors are more likely to be concentrated along these routes. The onus should be on the applicant for permission to develop in the environs of a scenic route, to demonstrate that there will be no obstruction or degradation of the views towards visually vulnerable features nor significant alterations to the appearance or character of sensitive areas.

5.1 Scenic Routes

1. The R666 heading west from the County border to Cappoquin;

2. The R668 north from Lismore and R669 north from Cappoquin;

3. Various third class routes heading north from the R666 through the Comeragh Mountains;

4. Third class route from the mouth of the Glendine River, crossing the River Bride and following the Blackwater north, turning west to Lismore;

5. From Youghal Bridge east along the N25 to Dungarvan;

6. North from Kinsalebeg to Clashmore on the R671, east at Clashmore along third class route to N25 at Gorteen;

7. East from Gorteen along third class route via Monamraher to the R674. East to Helvick (Heilbhic) Head, west to N25;

8. North-west from Dungarvan to Tooraneena on the R672. Third class North to Ballymacarbry. Join R671 to Clonmel taking the R678 and turning south for third class route through the Comeraghs;

9. Third class route east off the R671 at Ballymacarbry along the banks of the Nire, joining with route;

10. Third class route through the Monavullagh Mountains from the R672 to Lemybrien;

11. Third class circular route off R672 to Kilgobnet;

12. R680 East from Clonmel to Carrick-on-Suir. Turn south onto third class route to R678 or through Coolnamuck Wood onto R676;

13. R676 South from Clonmel to Lemybrien. N25 south to The Pike. Circular route along third class road south to R675, crossing N25 via Garrynageragh, east along R675 and north via Garranbaun and third class road returning to The Pike;

14. From Ballyvoyle Head east on the R675 to the junction with the R677. Continuing south along the R675 to Bunmahon, east via Kilmurrin and Annestown and Northeast to Fennor. East onto Tramore and north to Waterford City; and

15. South-east from Waterford City on the R683 to Mount Druid. South along the R684 to Belle Lake and east on third class road via Woodstown to Waterford Harbour. North to Passage East along the

Harbour, continuing north towards Cheekpoint. South at junction to R683 and west to Waterford City.

5.2 Protected Views

1. Panoramic View of Clonmel from Lachtnafrankee

2. Layby north of Glendalough on the L3060

3. River Suir viewing N towards Slievenamon

4. Nire Valley Trail Carpark Area

5. Sugarloaf Horseshoe Walk Parking Area- Waterford/Tipperary Border

6. The Vee

7. View of Knockmealdowns from Lay-by along the L1025

8. Mahon Falls

9. Cooltegin L 5087 viewing east to Waterford Harbour

10. Waterford Harbour between Crooke and Newtown Head

11. View from Lismore Bridge E and W

12. Picnic Area between Cappoquin and Lismore along River Blackwater

13. View from the 1916 memorial E of Cappoquin

14. Máma Road

15. Fornaght Strand between Knockaveelish and Creadan Head

16. Blackwater Valley from layby west of Aglish

17. Knockyoolahan East on Greenway looking to Ballynacourty headland and An Rinn

18. Tankardstown Copper Mine E and W

19. Copper Coast View point

20. Annestown Beach

21. Coastal trail between Dunmore East and Brownstown Head

22. Panoramic view over Dungarvan Harbour fro0m N25 Layby at Barranalira

23. Layby Helvic Head

24. Panoramic view over Dungarvan Harbour from Old Parish Road Layby on the L2026

25. Layby S Face of An Rinn Headland

26. L6040 to Ardsallagh Quay viewing N over River Blackwater

27. Goat Island

28. View from Ardmore Round Tower over Ardmore Bay.

6. Seascapes

A Seascape Character Assessment for Ireland was published by the Marine Institute in 2020 to collate a baseline descriptions of seascape character and to contribute to commitments under the European Landscape Convention and the National Landscape Strategy 2015- 2025. The aim of Seascape Character Assessment is to identify, classify and describe seascape character at a regional scale.

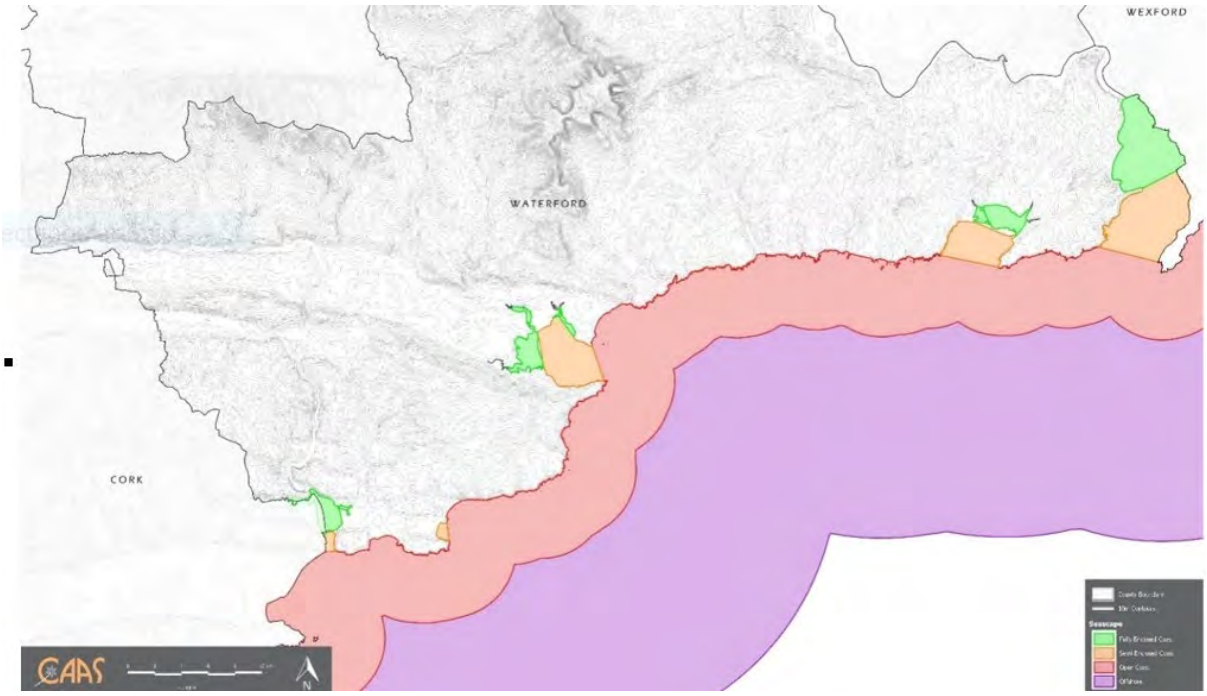
Seascape Character Assessment formed part of the 2020 Waterford Landscape Character Assessment project which classified the coast according to the Seascape types and Seascape Units detailed in Table A8.4.

Table A8.4 Seascape Type and Sensitivity

Seascape Type	**Description**	**Seascape Unit**	**Sensitivity**	
Fully enclosed Coast	Shorelines adjacent to marine or transitional waters but no view of the sea horizon. (The horizon is assumed to be at a distance of 20km)	A1: Youghal Inner Bay	Most Sensitive to change	Likely to undergo significant change or loss of character and appearance due to relatively minor changes - especially if located along the shoreline or skyline as it is visible throughout the area.
		A2: Dungarvan Inner Bay		
		A3: Tramore Inner Bay		
		A4: River Barrow Inner Estuary		
Semi-Enclosed Coast	Shorelines adjacent to marine or transitional waters but no more than 50% view of the sea horizon.	B1: Youghal Outer Bay	High Sensitivity to change	Likely to undergo noticeable change of character and appearance due to the magnitude or effects of new uses or developments that are visible from some parts of the area.
		B2: Ballinamona Bay		
		B3: Dungarvan Outer Bay		
		B4: Tramore Outer Bay		
		B5: River Barrow Outer Estuary		
Open Coast	All sea areas for a distance of up to 5km offshore with a view that is at least 50% ocean	C1: Waterford Estuary Coast	Less Sensitive to change	Areas where use, development and change may occur and where new uses
		C2: Tramore Coast and Copper Coast		

	horizon. Views from these waters will feel that the land is the dominant feature.	C3: Dungarvan to Youghal Coast		or developments are visible from some parts of the area.
Offshore and the Open Sea	All water between the edge of the Open Coastal waters Boundary (5km from the shore) and the Open Sea boundary (20km from the shore). Views from these waters will feel that the sea is the dominant feature. All waters that are beyond sight of land		Least Sensitive	Capable of accommodating, without loss of overall character, patterns of significant change of appearance due to continued development or use on the seaward side.

Map A8.4 Seascapes of County Waterford



Appendix 9
Record of Protected Structures

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Council Development Plan 2022 - 2028

Appendix 9 Record of Protected Structures

Waterford City Record of Protected Structures

RPS No	Name	No	Address	Address2	Type of Structure	NIAH No.
WA730015	The Gingerman Bar	6	Arundel Lane	Waterford	Commercial	22501180
WA730016	The Cutting Company	1	Arundel Square	Waterford	Commercial	22501151
WA730022	The Malt House (Formerly Sailors Poor House)		The Maltings Stephen Street (Bachelors Walk)	Waterford	Residential	22502436
WA730025	The Munster	14	Bailey's New Street	Waterford	Commercial	22504132
WA730027	Ballinakill House		Ballinakill	Waterford	Residential	0
WA730030	Gracedieu Manor		Ballindud	Waterford	Institutional	22901705
WA730031	Holy Trinity Church		Ballybricken	Waterford	Religious	0
WA730032	Freddie Kervick	40	Ballybricken Green	Waterford	Commercial	22501972
WA730033	The Bull Post		Ballybricken	Waterford	Miscellaneous	0
WA730035	Blenheim House		Blenheim Ballymaclode	Waterford	Residential	22901803
WA730036	Blenheim Lodge		Blenheim Ballymaclode	Waterford	Residential	0
WA730037	St Otterans Mortuary Chapel		Ballynaneashagh	Waterford	Religious	0
WA730038	St Angela's Secondary School - Convent buildings		Ballytruckle Road	Waterford	Educational	22830214
WA730039	Ursuline Chapel - Within Waterford Refugee Centre		Ballytruckle Road	Waterford	Institutional	22830319
WA730040	Fabric Shop	3	Barrack Street	Waterford	Residential / Commercial	22502367
WA730041	R Thompson	19	Barrack Street	Waterford	Residential / Commercial	22502383
WA730042	Mount Sion Cresent (former military barracks)		Barrack Street	Waterford	Residential	0
WA730043	Cathedral of the Most Holy Trinity	-	Barronstrand Street	Waterford	Religious	22501138
WA730044	Tommy Hilfiger Shop (shopfront only)	03, 04	Barronstrand Street	Waterford	Commercial	0

WA730045	Lily O'Brien (formerly Heine)	8	Barronstrand Street	Waterford	Commercial	22501086
WA730047	Therapie	31	Barronstrand Street	Waterford	Commercial	22501162
WA730049	Stone Warehouse		Bolton Street	Waterford	Commercial	0
WA730051	St Saviours Dominican Church		Bridge Street	Waterford	Religious	22500179
WA730052	No Name Entered	17	Broad Street	Waterford	Commercial	22501169
WA730057	Manor St John		Cannon Street Lisduggan	Waterford	Community	22829018
WA730058	17th Cen. Gable		Carrigeen Park	Waterford	Archaeological	0
WA730063	Christ Church Cathedral		Cathedral Square	Waterford	Religious	22504095
WA730064	John Roberts House (The Fat Angel)	1	Cathedral Square	Waterford	Residential / Commercial	0
WA730066	No Name Entered	3	Cathedral Square	Waterford	Residential	0
WA730067	No Name Entered	4	Cathedral Square	Waterford	Residential	0
WA730068	No Name Entered	5	Cathedral Square	Waterford	Residential	0
WA730069	No Name Entered	6	Cathedral Square	Waterford	Residential	0
WA730070	No Name Entered	7	Cathedral Square	Waterford	Residential	0
WA730071	The Deanery & Undercroft		Cathedral Square	Waterford	Museum	22504096
WA730072	Cathedral Close Apartments		Cathedral Close, Cathedral Square	Waterford	Residential	0
WA730073	Baptist Church		Catherine Street	Waterford	Religious	22504438
WA730074	Barrett Bros. Skoda Dealers	26	Catherine Street	Waterford	Commercial	22504426
WA730075	Sherlock House	2	Catherine Street	Waterford	Residential	0
WA730076	Waterford Courthouse	-	Catherine Street	Waterford	Institutional	22504492
WA730077	No Name Entered	5	Catherine Street	Waterford	Commercial	22504495
WA730078	No Name Entered	6	Catherine Street	Waterford	Residential	22504496
WA730079	No Name Entered	7	Catherine Street	Waterford	Commercial	22504497
WA730080	Wharton House	8	Catherine Street	Waterford	Commercial	22504498
WA730081	No Name Entered	9	Catherine Street	Waterford	Residential	22504499
WA730082	No Name Entered	10	Catherine Street	Waterford	Commercial	22504500
WA730083	No Name Entered	11	Catherine Street	Waterford	Commercial	22504501
WA730084	No Name Entered	13	Catherine Street	Waterford	Commercial	22504429
WA730085	No Name Entered	25	Catherine Street	Waterford	Residential	22504442
WA730086	St. Catherines Hall		Catherine Street	Waterford	Commercial	22504428

WA730087	Maryland House - including plaques		The Mall / Catherine Street	Waterford	Commercial	22504341
WA730089	No Name Entered	5	Colbeck Street	Waterford	Commercial	22504345
WA730090	Wallace House (external envelope only)	8	Colbeck Street	Waterford	Residential	0
WA730091	Walsh House (formerly Michael Walsh Asylum)		College Street	Waterford	Residential	22830231
WA730092	School of Ed and Prof Dev-former Dominicks School		WIT, College Street Campus College Street	Waterford	Educational	22830222
WA730094	St. Annes Presbytery		Convent Hill	Waterford	Residential	22502462
WA730095	Waterford Institute of Techology (WIT)		Good Shepherd Convent Cork Road / College Street	Waterford	Educational	22830217
WA730096	Matthew Shee(former Shee Charity)		Bath Street (Cork Road)	Waterford	Residential	0
WA730097	Manor Court Apartments-former Holy Ghost Hospital		Cork Road,	Waterford	Residential	22830216
WA730098	Annaville House		Dunmore Road	Waterford	Commercial	22831002
WA730099	Ardkeen Lodge, Waterford Regional Hospital		Dunmore Road	Waterford	Commercial	22831007
WA730100	Ballycar House		Dunmore Road	Waterford	Commercial	22831003
WA730102	Leoville House			Waterford	Residential	22831005
WA730103	Abbey Church/Scouting Ireland Ferrybank Scout Den		Abbey Road Ferrybank	Waterford	Community	22900905
WA730104	Abbey House			Waterford	Residential	22900907
WA730105	Abbey Lodge			Waterford	Residential	22900906
WA730106	Sacred Heart Church		Ferrybank	Waterford	Religious	22900904
WA730107	Sion Hill House & Garden		Ferrybank	Waterford	Residential	22500072
WA730128	Dolphin House	1	George's Street (Great Georges Street)	Waterford	Residential / Commercial	22501515

WA730129	No Name Entered	2	George's Street (Great George's Street)	Waterford	Commercial	22501514
WA730130	Old Presbytery	3	Great George's Street	Waterford	Residential	22501513
WA730131	Old Presbytery	4	George's Street (Great George's Street)	Waterford	Residential	22502584
WA730134	Waterford Walls (Carriageway only)	5	George's Street (Great George's Street)	Waterford	Commercial	22501512
WA730136	John Palmer Music Centre	7	George's Street (Great George's Street)	Waterford	Commercial	22501510
WA730137	The Vintage Factory/Arch Coffee Shop (carriageway)	29	George's Street (Great Georges Street)	Waterford	Commercial	22501098
WA730138	T & H Doolan	33	George's Street (Great Georges Street)	Waterford	Commercial	22501101
WA730139	St Patricks Catholic Church incl Arch and Bellcote		George's (Great) Street, Jenkin's Lane	Waterford	Religious	22501490
WA730140	Waterford Heritage		Jenkins Lane	Waterford	Community	0
WA730141	St Patrick's Ladies Home		George's (Great) Street, Jenkin's Lane	Waterford	Institutional	22501489
WA730142	T&H Doolan	31 & 32	George's Street (Great Georges Street)	Waterford	Commercial	22501100
WA730143	O'Shea O'Toole	11	Gladstone Street	Waterford	Commercial	0
WA730144	Gladstone Book Shop	12	Gladstone Street	Waterford	Commercial	22501106
WA730145	Nursing Needs Ltd	13	Gladstone Street	Waterford	Commercial	22501107
WA730146	The Old Ground	10	The Glen	Waterford	Commercial	0
WA730147	Gracedieu House		Gracedieu Road	Waterford	Residential	22900909
WA730172	Prospect Lodge		Gracedieu Road	Waterford	Residential	22828025
WA730173	Arlington Lodge (former Bishops House)		John's Hill	Waterford	Commercial	22830073

WA730174	St Otterans Cemetery (incl lodge arch and chapel)		John's Hill (Upper Grange Road)	Waterford	Religious	22830065
WA730175	The Grange	32	John's Hill	Waterford	Residential	22830077
WA730176	Comeragh House	34	John's Hill	Waterford	Residential	22830079
WA730177	Rosemount, The Elms		John's Hill	Waterford	Residential	22830076
WA730178	St Patricks Hospital		John's Hill	Waterford	Institutional	22830074
WA730179	St Otteran's Hospital		John's Hill (Upper Grange Road)	Waterford	Institutional	22830060
WA730180	College House		St John's College John's Hill (The Folly)	Waterford	Residential	22830069
WA730181	Grantstown House		Earlscourt, Dunmore Road	Waterford	Residential	22901822
WA730182	Greyfriars Art and Heritage Centre		Greyfriars	Waterford	Community	22504099
WA730203	The Granary, Dept of Architecture		The Quay (Merchants Quay)/ Hanover Street	Waterford	Educational	22500295
WA730204	Edmund Rice International Heritage Centre		Mount Sion Barrack Street	Waterford	Community	22502393
WA730205	No Name Entered	9	Henrietta Street	Waterford	Commercial	22504054
WA730210	No Name Entered	16	Henrietta Street	Waterford	Residential	22504065
WA730211	No Name Entered	17	Henrietta Street	Waterford	Residential	22504064
WA730213	L'atmosphere	19	Henrietta Street	Waterford	Commercial	22504062
WA730214	The Wine Vault		High Street	Waterford	Commercial	0
WA730215	Waterford Castle		Little Island	Waterford	Commercial	22901002
WA730218	Crystal nightclub-external envelope and shopfront	10	John Street	Waterford	Commercial	0
WA730219	Curry and Kebab House	16	John Street	Waterford	Commercial	22501321
WA730222	Eldon Terrace	11	John's Hill	Waterford	Residential	22830295
WA730223	Eldon Terrace	12	John's Hill	Waterford	Residential	22830294
WA730224	Eldon Terrace	13	John's Hill	Waterford	Residential	22830148
WA730225	Eldon Terrace	14	John's Hill	Waterford	Residential	22830293
WA730226	Eldon Terrace	15	John's Hill	Waterford	Residential	22830147
WA730227	Bellevue Terrace	1	John's Hill	Waterford	Residential	22830111
WA730228	Bellevue Terrace	2	John's Hill	Waterford	Residential	22830271

WA730229	Bellevue Terrace	3	John's Hill	Waterford	Residential	22830112
WA730230	Bellevue Terrace	4	John's Hill	Waterford	Residential	22830145
WA730231	Bellevue Terrace	5	John's Hill	Waterford	Residential	22830272
WA730232	Bellevue Terrace	6	John's Hill	Waterford	Residential	22830273
WA730233	No Name Entered	7	Bellevue Terrace, John's Hill	Waterford	Residential	22830274
WA730234	Bellevue Terrace	8	John's Hill	Waterford	Residential	22830146
WA730237	The Infirmary		John's Hill	Waterford	Residential	22830209
WA730238	Johnstown Bridge		Johnstown	Waterford	Bridge	22830204
WA730241	King's Terrace	2	Barker Street	Waterford	Residential	22502304
WA730242	King's Terrace	3	Barker Street	Waterford	Residential	22502305
WA730243	King's Terrace	4	Barker Street	Waterford	Residential	22502306
WA730244	King's Terrace	5	Barker Street	Waterford	Residential	22502307
WA730245	Carnegie Library		Lady lane	Waterford	Community	22501189
WA730246	No Name Entered	22	Lady Lane	Waterford	Commercial	22504350
WA730247	Waterford Lifetime Apartments, Lady Lane House	17	Lady Lane	Waterford	Residential	22504356
WA730248	Men's Hostel	18	Lady Lane	Waterford	Residential	22504355
WA730249	No Name Entered	19	Lady Lane	Waterford	Residential	22504354
WA730250	No Name Entered	20	Lady Lane	Waterford	Residential	22504353
WA730251	No Name Entered	21	Lady Lane	Waterford	Residential	0
WA730252	Franciscan Friary		Lady Lane	Waterford	Religious	22504022
WA730253	Waterford Lifetime Apartments, Lady Lane House		Sisters of Charity Lady Lane	Waterford	Residential / Commercial	22504358
WA730254	St. Michael's Church - remains		Little Michael Street, Spring Garden Alley	Waterford	Archaeological	0
WA730255	Paul Flynn's (fadade only0	8	Lombard Street	Waterford	Commercial	0
WA730256	Bishop's Palace		The Mall	Waterford	Museum	22504094
WA730257	City Hall & Theatre Royal		The Mall	Waterford	Community	22504135
WA730258	Aoife's	33	The Mall	Waterford	Commercial	22504314
WA730259	Squashy Couch	34	The Mall	Waterford	Commercial	22504313
WA730260	No Name Entered	36	The Mall	Waterford	Commercial	0
WA730261	Advance Property Care	18	The Mall	Waterford	Commercial	22504340
WA730262	La Palma	20	The Mall	Waterford	Commercial	22504338
WA730263	WWRD	29	The Mall	Waterford	Commercial	22504329
WA730264	No Name Entered	30	The Mall	Waterford	Commercial	22504328

WA730265	Hooper Dolan	31	The Mall	Waterford	Commercial	22504327
WA730266	Waterford City and County Council	32	The Mall	Waterford	Commercial	22504326
WA730267	Ornamental Lamp Posts		The Mall	Waterford	Miscellaneous	22504549
WA730280	No Name Entered	10	Mary Street	Waterford	Residential / Commercial	22500093
WA730282	No Name Entered	9	Mary Street	Waterford	Commercial	22500086
WA730283	Maypark House Nursing Home		Maypark Lane	Waterford	Commercial	0
WA730285	Dunnes Stores	47-49	Michael Street	Waterford	Commercial	22501185
WA730288	Phelans Pharmacy	33	Michael Street	Waterford	Commercial	0
WA730289	Chapz	34	Michael Street	Waterford	Commercial	0
WA730290	Funk It	32	Michael Street	Waterford	Commercial	0
WA730292	Joelle's	10	Michael Street	Waterford	Commercial	0
WA730312	Presbytery	11	New Street	Waterford	Residential	22501339
WA730313	Brentwood		Newtown Road	Waterford	Residential	22830027
WA730314	Church of St Joseph & Benildus		Newtown road	Waterford	Religious	0
WA730315	Newtown School		Newtown Road	Waterford	Educational	22830029
WA730318	Old Mile Post		Newtown Road	Waterford	Miscellaneous	0
WA730319	Rockville		Newtown Road	Waterford	Commercial	22830041
WA730321	Weston		Newtown	Waterford	Residential	22830032
WA730322	No Name Entered	14	Newtown Road	Waterford	Residential	22830007
WA730323	No Name Entered	15	Newtown Road	Waterford	Residential	22830008
WA730324	No Name Entered	16	Newtown Road	Waterford	Residential	22830009
WA730325	No Name Entered	17	Newtown Road	Waterford	Residential	22830010
WA730326	No Name Entered	18	Newtown Road	Waterford	Residential	22830011
WA730327	Fairview	19	Newtown Road	Waterford	Residential	22830012
WA730328	1 Suir View	20	Newtown Road	Waterford	Residential	0
WA730329	2 Suir View	21	Newtown Road	Waterford	Residential	0
WA730330	3 Suir View	22	Newtown Road	Waterford	Residential	0
WA730331	4 Suir View	23	Newtown Road	Waterford	Residential	0
WA730332	St Patricks House	24	Newtown Road	Waterford	Commercial	22830014
WA730333	Swiss Cottage		Newtown Road	Waterford	Residential	22830005
WA730334	Frank English	1 & 2	O'Connell Street	Waterford	Residential / Commercial	22500264
WA730335	Assembly House (former Bank) - SERA	30	O'Connell Street	Waterford	Commercial	22501066
WA730336	Garter Lane Arts Centre		O'Connell Street	Waterford	Community	22501535

WA730337	Thomas Meagher	20	O'Connell Street	Waterford	Residential / Commercial	22501525
WA730338	No Name Entered	3	O'Connell Street	Waterford	Residential	22500308
WA730339	No Name Entered	4	O'Connell Street	Waterford	Residential	22500307
WA730340	Garter Lane Gallery	5	O'Connell Street	Waterford	Community	22500306
WA730341	Delaney's Florist and Garden Shop	7	O'Connell Street	Waterford	Residential / Commercial	22500305
WA730342	Bistro (entrance to upper floors only)	11	O'Connell Street	Waterford	Residential / Commercial	22500312
WA730343	No Name Entered	23	O'Connell Street	Waterford	Commercial	22501522
WA730344	No Name Entered	24	O'Connell Street	Waterford	Commercial	22501521
WA730345	No Name Entered	68	O'Connell Street	Waterford	Residential	22500249
WA730346	No Name Entered	69	O'Connell Street	Waterford	Commercial	22500248
WA730347	Southern & Eastern Regional Assembly.		O'Connell Street	Waterford	Commercial	22501065
WA730348	8 Olaf Street		Waterford	Waterford	Residential	22504032
WA730349	9 Olaf Street		Waterford	Waterford	Residential	22504031
WA730350	10 Olaf Street		Waterford	Waterford	Residential	22504030
WA730351	Dartmouth (external envelope only)	11	Olaf Street	Waterford	Residential	22504029
WA730352	The People's Park		Park Road	Waterford	Community	22504212
WA730353	Carlisle Footbridge		The People's Park	Waterford	Bridge	0
WA730354	Burchall Asylum		Parnell Street	Waterford	Commercial	22504422
WA730355	Central Technical Institute		Parnell Street	Waterford	Institutional	22504411
WA730356	Cupids Hair Salon - shopfront	33	Parnell Street	Waterford	Commercial	0
WA730358	Avalon Guest House	2	Parnell Street	Waterford	Commercial	22504403
WA730359	Remax	3	Parnell Street	Waterford	Commercial	22504402
WA730360	No Name Entered	4	Parnell Street	Waterford	Commercial	22504401
WA730361	No Name Entered	5	Parnell Street	Waterford	Residential	22504400
WA730362	No Name Entered	6	Parnell Street	Waterford	Residential	22504399
WA730364	No Name Entered	8	Parnell Street	Waterford	Residential	22504398
WA730365	No Name Entered	9	Parnell Street	Waterford	Residential	22504397
WA730366	No Name Entered	10	Parnell Street	Waterford	Residential	22504396
WA730367	The Tanning Studio	11	Parnell Street	Waterford	Commercial	22504395
WA730368	No Name Entered	12	Parnell Street	Waterford	Residential / Commercial	22504394
WA730369	No Name Entered	13	Parnell Street	Waterford	Commercial	22504393

WA730370	No Name Entered	14	Parnell Street	Waterford	Commercial	0
WA730371	No Name Entered	15	Parnell Street	Waterford	Commercial	0
WA730372	Barry Murphy Auctioneers & Jephson & Co.	16	Parnell Street	Waterford	Commercial	0
WA730374	No Name Entered	18	Parnell Street	Waterford	Commercial	22504388
WA730375	No Name Entered	19	Parnell Street	Waterford	Residential	22504387
WA730376	No Name Entered	20	Parnell Street	Waterford	Commercial	22504386
WA730377	No Name Entered	21	Parnell Street	Waterford	Commercial	22504385
WA730378	St John's Church		Parnell Street	Waterford	Religious	22502996
WA730379	Waterford City R.F.C.		Parnell Street	Waterford	Community	22504406
WA730380	Landscape		Passage Road	Waterford	Residential	22830083
WA730382	St Patricks Church		Patrick Street	Waterford	Religious	22501448
WA730383	Olaf's Church		Peter Street	Waterford	Community	22504033
WA730384	AIB Bank	72 - 74	The Quay (Meagher's Quay)	Waterford	Commercial	22501110
WA730385	Tara's Barbers	85	The Quay (Meagher's Quay)	Waterford	Residential / Commercial	22501119
WA730386	John Hearn	87	The Quay (Meagher Quay)	Waterford	Residential / Commercial	22504007
WA730387	John Hearn	88	The Quay (Meagher Quay)	Waterford	Residential / Commercial	22504007
WA730388	Medieval Chamber - in Waterford Electrical		Conduit Lane	Waterford	Archaeological	0
WA730389	No Name Entered	96	The Quay (Meagher Quay)	Waterford	Commercial	0
WA730390	Ulster Bank	97/98	Custom House Quay	Waterford	Commercial	22504037
WA730391	Custom House & G.P.O.		Custom House Quay	Waterford	Commercial	22504035
WA730392	Clock Tower		Meagher's Quay	Waterford	Miscellaneous	22502675
WA730393	Gladstone House	50	Merchants Quay	Waterford	Commercial	22500317
WA730394	Bank of Ireland	60	Meagher's Quay (The Quay)	Waterford	Commercial	22501076
WA730395	Pizza Dome	10	Merchant's Quay	Waterford	Commercial	22500207
WA730396	Granville Hotel	61-66	Meagher's Quay (The Quay)	Waterford	Commercial	22501077
WA730397	Jordan's	123	The Quay (Parade Quay)	Waterford	Commercial	22504114

WA730400	Willow and WIld by Bonzie	126	The Quay (Parade Quay)	Waterford	Commercial	22504109
WA730401	Central Hall (formerly Christian Centre)	123A	The Quay (Parade Quay)	Waterford	Community	22504113
WA730402	Major Opticians	107	Clyde House, The Quay (Customs House Quay)	Waterford	Commercial	22504041
WA730412	Waterford Health Park		Slievekeale Road	Waterford	Commercial	22829002
WA730413	No Name Entered	51	Slievekeale Road.	Waterford	Residential	0
WA730414	No Name Entered	52	Slievekeale Road	Waterford	Residential	22829005
WA730415	No Name Entered	53	Slievekeale Road	Waterford	Residential	0
WA730416	No Name Entered	54	Slievekeale Road	Waterford	Residential	22829006
WA730417	No Name Entered	55	Slievekeale Road	Waterford	Residential	0
WA730418	No Name Entered	56	Slievekeale Road	Waterford	Residential	0
WA730419	No Name Entered	6	South Parade	Waterford	Residential	22830292
WA730420	St Bridget's	7	South Parade	Waterford	Residential	22830127
WA730421	No Name Entered	8	South Parade	Waterford	Residential	22830288
WA730422	No Name Entered	9	South Parade	Waterford	Residential	22830287
WA730423	No Name Entered	10	South Parade	Waterford	Residential	22830126
WA730424	No Name Entered	11	South Parade	Waterford	Residential	22830286
WA730425	No Name Entered	12	South Parade	Waterford	Residential	22830285
WA730426	No Name Entered	13	South Parade	Waterford	Residential	22830125
WA730427	No Name Entered	14	South Parade	Waterford	Residential	22830124
WA730428	No Name Entered	15	South Parade	Waterford	Residential	22830123
WA730431	Racquet Court		Spring Garden Alley	Waterford	Miscellaneous	0
WA730432	Kiely's Bottlers		New Street Stephen Street	Waterford	Archaeological	0
WA730434	Gortmore		Summerville Avenue	Waterford	Residential	22830052
WA730474	Viewmount House		Viewmount	Waterford	Commercial	0
WA730475	St Declan's School		Water Street	Waterford	Educational	22830114
WA730476	Masonic Hall		1 Waterside Waterford	Waterford	Community	0
WA730477	No Name Entered	6	William Street	Waterford	Residential	22504194
WA730478	No Name Entered	7	William Street	Waterford	Residential	22504193
WA730479	No Name Entered	8	William Street	Waterford	Residential	22504192
WA730480	No Name Entered	9	William Street	Waterford	Residential	22504191
WA730481	No Name Entered	10	William Street	Waterford	Residential	22504190
WA730482	No Name Entered	10a	William Street	Waterford	Residential	22504189

WA730483	No Name Entered	24	William Street	Waterford	Residential	22504175
WA730484	No Name Entered	25	William Street	Waterford	Residential	22504174
WA730485	External envelope only	26	William Street	Waterford	Residential	22504173
WA730486	RJ Keighery Antiques (external envelope only)	27a	William Street	Waterford	Commercial	22504171
WA730487	William Street bridge		William Street	Waterford	Bridge	22504167
WA730488	Farron House		Farronshoneen Williamstown Road	Waterford	Residential	0
WA730503	Fairy Hill		Dunmore Road, Newtown	Waterford	Residential	22830043
WA730504	Permancia		Hillside Park, Dunmore Road	Waterford	Residential	0
WA730507	Sion Row (External envelope and doorway only)	14	Dock road, Ferrybank	Waterford	Residential	22500061
WA730511	Somerset Cottage		Lower Newtown	Waterford	Residential	0
WA730512	Sweetbriar Terrace	33	Lower Newtown	Waterford	Residential	22830094
WA730513	Sweetbriar Terrace	34	Lower Newtown	Waterford	Residential	22830250
WA730514	Sweetbriar Terrace	35	Lower Newtown	Waterford	Residential	22830152
WA730515	Sweetbriar Terrace	36	Lower Newtown	Waterford	Residential	22830251
WA730516	Sweetbriar Terrace	37	Lower Newtown	Waterford	Residential	22830252
WA730517	Sweetbriar Terrace	38	Lower Newtown	Waterford	Residential	22830253
WA730520	No Name Entered	14	Mayor's Walk	Waterford	Residential / Commercial	22502010
WA730522	An Siopa, Apple Market	60	John Street	Waterford	Commercial	22501241
WA730523	Apple Market	61	John Street	Waterford	Commercial	22501240
WA730524	Gino's, Apple Market	62	John Street	Waterford	Commercial	22501239
WA730525	Antiques, Apple Market	63	John Street	Waterford	Residential / Commercial	22501238
WA730533	Church of the Most Sacred Heart		Lower Grange	Waterford	Religious	22830211
WA730544	No Name Entered	21	Thomas Street	Waterford	Residential	22501024
WA730545	Henry Downes Ltd		Thomas Street	Waterford	Commercial	0
WA730546	The Limes		John's Hill (Upper Grange Road)	Waterford	Residential	22830066
WA730547	Grange Lodge		John's Hill (Upper Grange Road)	Waterford	Residential / Commercial	22830067

WA730548	Former convent - St John's College		The Folly	Waterford	Residential	22830068
WA730549	Sherlock House - Coat of Arms		Catherine Street	Waterford	Miscellaneous	0
WA730550	Harvey Travel	4	Gladstone Street	Waterford	Commercial	22500330
WA730551	Busarakam - Original Thai Massage Therapy	5	Gladstone Street	Waterford	Commercial	22502999
WA730552	No Name Entered	6	Henrietta Street	Waterford	Commercial	22504049
WA730554	Waterford Lifetime Apartments, Lady Lane House	16	Lady Lane	Waterford	Residential	0
WA730561	Waterford City and County Council Offices	35	The Mall	Waterford	Commercial	0
WA730562	Sabai	19	The Mall	Waterford	Commercial	22504339
WA730563	Portree Guest House	11	Mary Street	Waterford	Residential / Commercial	22500092
WA730564	No Name Entered	12	Mary Street	Waterford	Residential	22500125
WA730566	Letterbox	51A	O'Connell Street	Waterford	Miscellaneous	22500353
WA730569	Leo Murphy Photography	12	O'Connell Street	Waterford	Commercial	22500311
WA730571	Plunket Railway Station - Signal Box		Terminus Street (Dock Road)	Waterford	Miscellaneous	22500027
WA730572	Flight of Steps		Adelphi Quay	Waterford	Maritime	0
WA730573	Berfranks	86	The Quay (Meagher's Quay)	Waterford	Commercial	22824006
WA730574	Lloyds	89	The Quay (Meagher Quay)	Waterford	Residential / Commercial	22504008
WA730575	Educogym	90-91	The Quay (Meagher Quay)	Waterford	Residential / Commercial	22504009
WA730579	Quay Wall & Steps		Georges Quay / Scotch Quay	Waterford	Maritime	22504257
WA730580	Cash Convenience	47	Merchants Quay	Waterford	Commercial	22500320
WA730581	Mc Outdoor Store	46	Merchants Quay	Waterford	Commercial	22500321
WA730582	No Name Entered	44-45	Merchants Quay	Waterford	Commercial	22500322
WA730585	Sheehan's	40	Merchants Quay	Waterford	Commercial	22500326
WA730586	Shaws - External envelope only	53 & 54	Meagher Quay (The Quay)/ Gladstone Street	Waterford	Commercial	22500332
WA730587	Quay wall steps and Slipway		Merchants Quay	Waterford	Maritime	0

WA730588	Quay Music	109	The Quay (Customs House Quay)	Waterford	Commercial	22504045
WA730589	FDC Financial Services	108	The Quay (Customs House Quay)	Waterford	Commercial	22504046
WA730592	Flagstones		Parade Quay	Waterford	Miscellaneous	0
WA730593	Quay Wall		Parade Quay	Waterford	Maritime	0
WA730594	Cast Iron Bollards		Quay	Waterford	Maritime	0
WA730597	No Name Entered	4	William Street	Waterford	Commercial	22504195
WA730598	No Name Entered	3	William Street	Waterford	Residential	22504197
WA730599	No Name Entered	2	William Street	Waterford	Residential	22504198
WA730600	No Name Entered	1	William Street	Waterford	Residential	22504199
WA730601	Badminton Hall		Lady Lane	Waterford	Recreational	22504351
WA730602	Serendipity	39	Merchants Quay	Waterford	Residential / Commercial	22500327
WA730603	Scarlett	115	The Quay (Custom House Quay)	Waterford	Residential / Commercial	22504073
WA730604	S Security	114	The Quay (Custom House Quay)	Waterford	Commercial	22504074
WA730605	Letterbox	1	Parnell Street	Waterford	Miscellaneous	0
WA730606	Catch 22	23	Bailey's New Street	Waterford	Commercial	22504124
WA730607	The Reg	22	Bailey's New Street	Waterford	Commercial	22504125
WA730608	No Name Entered	21	Bailey's New Street	Waterford	Commercial	22504126
WA730609	No Name Entered	20	Bailey's New Street	Waterford	Commercial	22504127
WA730610	No Name Entered	19	Bailey's New Street	Waterford	Residential	22504128
WA730611	No Name Entered	18	Bailey's New Street	Waterford	Residential / Commercial	22504129
WA730613	Greenbank House	5	Bridge Street	Waterford	Residential / Commercial	22500194
WA730614	Letterbox		Catherine Street	Waterford	Miscellaneous	22504585
WA730616	De La Salle		Newtown Road	Waterford	Educational	22830013
WA730617	Waterpark College		Park Road (Newtown Road)	Waterford	Educational	22830004
WA730618	Villa Bosco		Gortmore Drive, Newtown	Waterford	Residential	22830044

WA730619	Washington Lodge	-	Sweetbriar Park	Waterford	Commercial	0
WA730620	Otteran Place	17	South Parade	Waterford	Residential	22830117
WA730621	Otteran Place	18	South Parade	Waterford	Residential	22830118
WA730622	Otteran Place	19	South Parade	Waterford	Residential	22830119
WA730623	Otteran Place	20	South Parade	Waterford	Residential	22830276
WA730624	Otteran Place	21	South Parade	Waterford	Residential	22830277
WA730625	Otteran Place	22	South Parade	Waterford	Residential	22830278
WA730626	Otteran Place	23	South Parade	Waterford	Residential	22830279
WA730627	Brew House - specified parts of		Mary Street	Waterford	Industrial	22500385
WA730628	No Name Entered	29	The Glen	Waterford	Residential	22501793
WA730629	Rockenham Court - exterior of main hse & setting		Ferrybank	Waterford	Residential	0
WA730630	Rossmore		Passage Road	Waterford	Residential	22830046
WA730631	Clooneen		Passage Road	Waterford	Residential	22830045
WA730632	Otteran House		Otteran Place , South Parade	Waterford	Commercial	22830116
WA730634	Pizza Palace	33A	John Street	Waterford	Commercial	0
WA730635	Youthreach	66	O'Connell Street	Waterford	Commercial	22500221
WA730637	Hibernian Gifts - external facade only	8-9	Bolton Street	Waterford	Commercial	0
WA730638	Our Lady of Fatima Unit		Waterford Regional Hospital	Waterford	Commercial	0
WA730639	Tycor Business Centre		Tycor Avenue / Ard Na Greine	Waterford	Industrial	22829001
WA730640	No Name Entered	4	Bailey's New Street	Waterford	Residential	22504118
WA730641	No Name Entered	5	Bailey's New Street	Waterford	Residential	22504117
WA730648	Denis Maguire (formerly)	28	Ballybricken Green	Waterford	Commercial	22501962
WA730649	No Name Entered	29	Ballybricken Green	Waterford	Commercial	22501963
WA730650	Fairview Café	36	Ballybricken Green	Waterford	Residential / Commercial	22501968
WA730651	Kervick Brothers	39	Ballybricken Green	Waterford	Residential / Commercial	22501971
WA730653	No Name Entered		Ballybricken Green	Waterford	Miscellaneous	22502678

WA730654	Limestone paving		Ballybricken Green	Waterford	paving misc	22502573
WA730655	Smak	12	Ballybricken Green Wellington Street	Waterford	Residential / Commercial	22501943
WA730656	Waterford Refuge Centre		Birchwood House Ballytruckle Road	Waterford	Institutional	22830213
WA730657	Elysium House		Ballytruckle Road	Waterford	Residential / Commercial	22830212
WA730658	Letterbox		Ballytruckle Road	Waterford	letter box	22830210
WA730660	No Name Entered	28	Barker Street	Waterford	Residential	22501843
WA730661	Post box		Barrack Street	Waterford	post box	22830223
WA730665	Waterford Military Barracks		Green Street	Waterford	Institutional	22502540
WA730668	Boots (front facade only)	9	Barronstrand Street	Waterford	Commercial	22501087
WA730671	Bagel Factory	21-22	Broad Street	Waterford	Commercial	22501165
WA730673	McGuire House (formerly St Margarets) (Exterior)		Bath Street	Waterford	Residential	22830180
WA730674	Letterbox		Bath Street	Waterford	letter box	22830181
WA730675	No Name Entered	19	Beau Street	Waterford	Residential	22504512
WA730676	No Name Entered	18	Beau Street	Waterford	Residential	22504513
WA730677	Bellevue Terrace - Gate and railings		John's Hill	Waterford	Miscellaneous	22830275
WA730678	P. Larkin	2	Blackfriars Street	Waterford	Residential / Commercial	22501143
WA730680	The Presbytery		St Joseph's Home Manor Hill	Waterford	Religious	22830230
WA730685	Get and Go	13	Broad Street	Waterford	Commercial	22501173
WA730686	The Book Centre	25	Barronstrand Street	Waterford	Commercial	22501493
WA730687	No Name Entered	18	Broad Street	Waterford	Commercial	22501168
WA730688	Entertainment exchange / Red Kettle	15	Broad Street	Waterford	Commercial	22501171
WA730690	Betty Clothing	14	Broad Street	Waterford	Commercial	22501172
WA730691	T. Kiersey and Company	17	Catherine Street	Waterford	Commercial	22504433
WA730692	No Name Entered	16	Catherine Street	Waterford	Residential	22504432
WA730693	No Name Entered	15	Catherine Street	Waterford	Residential	22504431
WA730694	No Name Entered	14	Catherine Street	Waterford	Commercial	22504430

WA730697	Tycor House		Cleaboy Road	Waterford	Residential	22828033
WA730699	Grant Hair	84	The Quay (Meagher's Quay)	Waterford	Commercial	22501118
WA730700	Clock Tower Dry Cleaners	82	The Quay (Meagher's Quay)	Waterford	Commercial	22501116
WA730702	Farrell Travel	83	The Quay (Meagher's Quay)	Waterford	Commercial	22501117
WA730703	Lutsia	85a	Conduit Lane (Meagher's Quay)	Waterford	Residential / Commercial	22501135
WA730704	Mamie Fox	85b	Conduit Lane , Cathedral Lane	Waterford	Residential / Commercial	22501136
WA730706	Chimney - Waterford Institute of Technology		Cork Road	Waterford	Miscellaneous	22830322
WA730707	Gate lodge - Manor Court, Holy Ghost Hospital		Cork Road	Waterford	Commercial	22830215
WA730708	Freestanding Steel Crane		Custom House Quay	Waterford	Maritime	22504561
WA730709	Plunkett Railway Station - Canopy		Terminus Street/ Dock Road	Waterford	Industrial	22500033
WA730711	Aisling		Dunmore Road	Waterford	Residential	22831001
WA730712	Leoville Lodge		Dunmore Road	Waterford	Residential	22831006
WA730714	Limestone footpath		Francis Street	Waterford	paving misc	22502570
WA730716	No Name Entered	2	French Church Terrace , Greyfriar's	Waterford	Residential	22504102
WA730717	No Name Entered	1	French Church Terrace , Greyfriar's	Waterford	Residential	22504101
WA730718	Aherlow House	3	French Church Terrace, Greyfriars	Waterford	Residential	22504103
WA730719	ward sign		Gibbett Hill	Waterford	Miscellaneous	22828035
WA730721	Letterbox		Gladstone Street	Waterford	letter box	22501108
WA730722	Citizens Information, Comhairle	14	Gladstone Street	Waterford	Commercial	22501109
WA730723	7 Gladstone Street			Waterford	Commercial	22501069
WA730724	Scissors Hands	6	Gladstone Street	Waterford	Commercial	22501070
WA730726	Post box		Gracedieu Road	Waterford	post box	22828030
WA730730	Rocklands		Gracedieu Road	Waterford	Residential	22828029
WA730731	No Name Entered	134	Gracedieu Road	Waterford	Residential	22828018

WA730733	Bank of Ireland (rear entrance)	34	George's Street(Great Georges Street)	Waterford	Commercial	22501102
WA730734	J. and K. Walsh	11	George's Street (Great George's Street)	Waterford	Residential / Commercial	22501506
WA730735	Oxfam	8	Georges Street,	Waterford	Residential / Commercial	22501509
WA730736	Bell pepper - External Envelope only	36-37	George's Street (Great Georges Street)	Waterford	Commercial	22501104
WA730739	Starbucks (external envelope only)	21	George's Street (Great Georges Street)	Waterford	Commercial	22501093
WA730740	Waterford Military Barracks		Green Street	Waterford	Miscellaneous	22502156
WA730745	Grosvenor Terrace	31	John's Hill	Waterford	Residential / Commercial	22830270
WA730746	Grosvenor Terrace	28	John's Hill	Waterford	Residential	22830267
WA730747	Grosvenor Terrace	30	John's Hill	Waterford	Residential	22830269
WA730748	Grosvenor Terrace	29	John's Hill	Waterford	Residential	22830268
WA730749	Grosvenor Terrace	27	John's Hill	Waterford	Residential	22830266
WA730750	Grosvenor Terrace	26	John's Hill	Waterford	Residential	22830265
WA730751	Grosvenor Terrace	25	John's Hill	Waterford	Residential	22830264
WA730752	Grosvenor Terrace	23	John's Hill	Waterford	Residential	22830107
WA730753	Grosvenor Terrace	24	John's Hill	Waterford	Residential	22830263
WA730755	No Name Entered	14	Henry Street	Waterford	Residential	22830187
WA730758	The Cottage	15	Henry Street	Waterford	Residential	22830188
WA730759	No Name Entered	12	Henry Street	Waterford	Residential	22830186
WA730762	52 John Street		Waterford	Waterford	Commercial	22501269
WA730767	Hill Billy's (external envelope only)	17	John Street	Waterford	Commercial	22501320
WA730768	Clock, Apple market		John Street	Waterford	Miscellaneous	22502986
WA730769	USA Stores	1-2	John Street New Street	Waterford	Commercial	22501333
WA730771	Letterbox		John's Hill	Waterford	letter box	22830088
WA730772	Knockmore House - Entrances/ Gateway only		John's Hill	Waterford	Miscellaneous	22830110
WA730773	Lyndhurst	49	John's Hill	Waterford	Residential	22830109
WA730774	Killard	48	John's Hill	Waterford	Residential	22830108

WA730775	Auburn	39	John's Hill	Waterford	Residential	22830087
WA730776	No Name Entered	38	John's Hill	Waterford	Residential	22830086
WA730777	Grosvenor Terrace	21	John's Hill	Waterford	Residential	22830106
WA730778	Grosvenor Terrace	20	John's Hill	Waterford	Residential	22830105
WA730779	No Name Entered	37	John's Hill	Waterford	Residential	22830085
WA730780	Fairmount House		John's Hill	Waterford	Residential / Commercial	22830084
WA730781	Grosvenor Terrace	22	John's Hill	Waterford	Residential	22830262
WA730782	Mayville	35	John's Hill	Waterford	Residential	22830080
WA730785	54 Johnstown		Waterford	Waterford	Residential / Commercial	22830207
WA730788	38 Johnstown		38 Johnstown	Waterford	Residential	22830154
WA730789	The Mansion House - External Envelope only	39	Johnstown	Waterford	Commercial	22830153
WA730792	No Name Entered	47	Lower Newtown Road	Waterford	Residential	22830133
WA730793	No Name Entered	46	Lower Newtown Road	Waterford	Residential	22830132
WA730794	No Name Entered	50	Lower Newtown Road	Waterford	Residential	22830136
WA730795	No Name Entered	48	Lower Newtown Road	Waterford	Residential	22830134
WA730796	No Name Entered	49	Lower Newtown Road	Waterford	Residential	22830135
WA730797	No Name Entered	45	Lower Newtown Road	Waterford	Residential	22830099
WA730798	No Name Entered	52	Lower Newtown Road	Waterford	Residential	22830138
WA730799	No Name Entered	51	Lower Newtown Road	Waterford	Residential	22830137
WA730800	Quaker Cemetery		Lower Newtown Road /Wilkin's Street	Waterford	Religious	22830095
WA730802	Whittle	98	Lower Yellow Road	Waterford	Residential	22501682
WA730804	Michael Guiney's	9	George's Street (Great George's Street)	Waterford	Commercial	22501508
WA730805	George's Court Shopping Centre (facade only)	26-28	Great George's Street (George's Street)	Waterford	Commercial	22501094

WA730806	No Name Entered	96	Lower Yellow Road Newport's Square	Waterford	Commercial	22501680
WA730807	Caulfield's	21-22	Lower Yellow Road Philip Street	Waterford	Commercial	22501660
WA730808	Catholic Church of the Most Holy Family		Luke Wadding Street	Waterford	Religious	22829004
WA730809	St Joseph's Home		Manor Hill	Waterford	Educational	22830221
WA730810	No Name Entered	19	Manor Street	Waterford	Residential	22830196
WA730811	No Name Entered	20	Manor Street	Waterford	Residential	22830195
WA730812	No Name Entered	73	Manor Street	Waterford	Residential	22830194
WA730813	No Name Entered	66	Manor Street	Waterford	Residential	22830185
WA730815	No Name Entered	18	Manor Street	Waterford	Residential	22830197
WA730818	External envelope only	61	Manor Street	Waterford	Residential	22830183
WA730820	Madigan's	16	Manor Street	Waterford	Commercial	22830199
WA730821	Sinn Fein	85	Manor Street	Waterford	Residential / Commercial	22830202
WA730822	No Name Entered	55	Manor Street	Waterford	Residential	22830312
WA730823	No Name Entered	53	Manor Street	Waterford	Residential	22830182
WA730830	External envelope only	24	Mayor's Walk	Waterford	Residential	22502019
WA730831	Mayor's Walk House	12	Mayor's Walk	Waterford	Residential	22502008
WA730833	Fitz U	67	Meagher's Quay	Waterford	Commercial	22501080
WA730838	Cafe Goa	36	Merchant's Quay	Waterford	Commercial	22500286
WA730840	Spice Planet	16	Merchant's Quay	Waterford	Commercial	22500276
WA730841	Treacy's Hotel - external envelope		Merchant's Quay , Bridge Street	Waterford	Commercial	22500215
WA730842	Gino's	51	Michael Street	Waterford	Commercial	22501183
WA730851	Tosh Widger	38	Michael Street	Waterford	Commercial	22501197
WA730855	Mercy Convent		Military Road	Waterford	Religious	22828012
WA730864	Belvedere House		Newtown Road	Waterford	Residential / Commercial	22830025
WA730865	Roselea House		Newtown Road	Waterford	Residential	22830026
WA730866	Holmacre House and Gates		Newtown Road	Waterford	Residential	22830021
WA730867	Belgrave House	26	Newtown Road	Waterford	Residential	22830015
WA730868	No Name Entered	27	Newtown Road	Waterford	Residential	22830016
WA730869	Nolan Farrell & Goff, Newtown Lodge - main str		Newtown Road	Waterford	Commercial	22830017

WA730870	Gateway		Newtown Road	Waterford	Miscellaneous	22830242
WA730871	Suirville (House) Gatelodge & Gates		Newtown Road	Waterford	Residential	22830036
WA730873	Ardenagh		Newtown Road	Waterford	Residential	22830024
WA730875	Kilfiera (main house only)		Newtown Road	Waterford	Residential	22830037
WA730876	Newtown Villa	1	Newtown Villas, Newtown Road	Waterford	Residential	22830040
WA730880	Five star kebab and Pizza	34	O'Connell Street	Waterford	Commercial	22501062
WA730884	Holistic Centre	50	O'Connell Street	Waterford	Residential / Commercial	22500302
WA730885	Holistic Centre	51	O'Connell Street	Waterford	Residential / Commercial	22500301
WA730887	Five star kebab and pizza	33	O'Connell Street	Waterford	Commercial	22501063
WA730889	Waterford and Wexford Education and Training Board		Adult Education Centre, Ozanam Street (off)	Waterford	Educational	22828031
WA730894	Waterford Animal Welfare	114a	The Quay (Customs House Quay)	Waterford	Commercial	22504700
WA730905	Momo	47	Patrick Street	Waterford	Residential / Commercial	22501409
WA730906	St Stephen's Monastery		Patrick Street	Waterford	Religious	22501434
WA730909	Modern Tyres		Philip street	Waterford	Commercial	0
WA730911	Poleberry House	72	Poleberry Street	Waterford	Residential	22830178
WA730912	Waterford Resource Centre for the Unemployed		Rockfield Park Gracedieu	Waterford	Commercial	22828028
WA730920	Saint Declan's Place	58	Lower Newtown Road	Waterford	Residential	22830257
WA730922	Saint Declan's Place	55	Lower Newtown Road	Waterford	Residential	22830254
WA730925	Saint Declan's Place	53	Lower Newtown Road	Waterford	Residential	22830100
WA730926	Gateway		St. John's Avenue	Waterford	gateway	22502993
WA730927	Limestone foothpath - paving and kerbing		Saint John's Avenue	Waterford	paving misc	22502995
WA730928	Crane		Scotch Quay , George's Quay	Waterford	Maritime	22504256

WA730931	Post box		Shortcourse	Waterford	post box	22502680
WA730933	No Name Entered	24	South Parade	Waterford	Residential	22830120
WA730934	No Name Entered	25	South Parade	Waterford	Residential	22830121
WA730935	No Name Entered	26	South Parade	Waterford	Residential	22830122
WA730936	No Name Entered	5	South Parade	Waterford	Residential	22830128
WA730937	No Name Entered	32	South Parade	Waterford	Residential	22830129
WA730938	No Name Entered	28	South Parade	Waterford	Residential	22830281
WA730939	No Name Entered	2	South Parade	Waterford	Residential	22830291
WA730940	No Name Entered	2a	South Parade	Waterford	Residential	22830290
WA730941	No Name Entered	4	South Parade	Waterford	Residential	22830289
WA730942	No Name Entered	31	South Parade	Waterford	Residential	22830284
WA730943	No Name Entered	33	South Parade	Waterford	Residential	22830130
WA730944	No Name Entered	29	South Parade	Waterford	Residential	22830282
WA730945	No Name Entered	34	South Parade	Waterford	Residential	22830298
WA730946	No Name Entered	27	South Parade	Waterford	Residential	22830280
WA730947	No Name Entered	37	South Parade	Waterford	Residential	22830296
WA730948	No Name Entered	35	South Parade	Waterford	Residential	22830297
WA730949	No Name Entered	36	South Parade	Waterford	Residential	22830151
WA730950	No Name Entered	38	South Parade	Waterford	Residential	22830150
WA730951	No Name Entered	3	South Parade	Waterford	Residential	22830149
WA730952	No Name Entered	30	South Parade	Waterford	Residential	22830283
WA730954	De La Salle Hall		Stephen's Street, Alexander Street	Waterford	Community	22502448
WA730960	Gas lampstandards		The Mall	Waterford	Miscellaneous	22504549
WA730962	No Name Entered	17	Thomas Hill	Waterford	Residential	22502338
WA730963	No Name Entered	22	Thomas Hill	Waterford	Residential	22502343
WA730967	No Name Entered	23	Thomas Hill	Waterford	Residential	22502344
WA730976	No Name Entered	21a	Thomas Street	Waterford	Residential	22501023
WA730977	Quarrymount House		John's Hill (Upper Grange Road)	Waterford	Residential	22830053
WA730978	Letterbox		John's Hill (Upper Grange Road)	Waterford	letter box	22830054
WA730981	Letterbox		Upper Yellow Road	Waterford	letter box	22828032
WA730982	Park Lodge		Water Street	Waterford	Residential	22830115
WA730984	Rape Crisis Centre	2A	Waterside	Waterford	Commercial	22504449
WA730990	No Name Entered	2	Waterside	Waterford	Residential	22504450
WA730992	Wigham McGrath & Partners Architects	29	William Street	Waterford	Commercial	22504169
WA730993	No Name Entered	27	William Street	Waterford	Residential	22504171
WA730994	No Name Entered	28	William Street	Waterford	Residential	22504170

WA730995	No Name Entered	30	William Street , George's Quay	Waterford	Residential	22504168
WA730996	The Quays	81	The Quay (Meagher's Quay)	Waterford	Commercial	22501115
WA730997	Kelly's	75	The Quay (Meagher's Quay)	Waterford	Commercial	22501111
WA730998	Kelly's	76	The Quay (Meagher's Quay)	Waterford	Commercial	22502591
WA731000	Morzio Singapore Restaurant- External envelope only	2-4	Henrietta Street	Waterford	Commercial	22504050
WA731004	Peacocks	1-2	Michael Street Patrick Street	Waterford	Commercial	22501406
WA731005	Sully's - Facade only	9	O'Connell Street	Waterford	Commercial	22500303
WA731006	Pet paradise - Shopfront only	65	O'Connell Street , Penrose Lane	Waterford	Commercial	22500252
WA731007	St. Thomas' Church, Brasscock		Ballinakill Dunmore Road	Waterford	Recreational	22901801
WA731008	Ballyhoo Bridge		Duagh	Waterford	Bridge	22901704
WA731015	Suir Bridge		Gracedieu East	Waterford	Bridge	22900903
WA731017	Prospect		Dunmore Road	Waterford	Residential	22831008
WA731018	Ballynakill Lodge (The Nursery)		Nursery Lane Ballinakill	Waterford	Residential	22831009
WA731019	Little Blenheim		Blenheim Ballymaclode	Waterford	Residential	22901003
WA731020	Marlfield (main house only)		Newtown Road	Waterford	Residential	22830038
WA731021	Cul Le Grein	2	Newtown Villas, Newtown Road	Waterford	Residential	22830039
WA731022	Ward sign	17	Ballybricken/Morang Street	Waterford	Miscellaneous	0
WA731023	Post box		Waterford Industrial Park, Paddy Browns Road,	Waterford	post box	0
WA731024	Bushe Lodge		Grubbs Lane Catherine Street	Waterford	House	0
WA731025	Medieval Museum		Cathedral Square	Waterford	Museum	0
WA731026	No Name Entered	9	Lower Yellow Rd,	Waterford	Commercial	0

WA731027	Borough boundary sign		Borough boundary, Ballytruckle Road	Waterford	Miscellaneous	0
WA731028	Ward sign,		St Dominic's Credit Union itd, Summerhill,	Waterford	Miscellaneous	0
WA731029	Ward Sign		St Dominic's Credit Union Ltd, Morgan Street,	Waterford	Miscellaneous	0
WA731030	Borough Boundary		Borough Boundary, Upper Grange Road,	Waterford	Miscellaneous	0
WA731031	Post Box		Arundel Square	Waterford	post box	0
WA731032	Ard na Greine,		Upper Grange Road, Johns Hill	Waterford	House	0
WA731034	Letterbox		Nolan,Farrell,Goff, Newtown Road,	Waterford	letter box	0
WA731035	Letterbox		Post box, South Parade	Waterford	letter box	0
WA731036	Post Box, Iarnrod Eireann, Plunkett Station		Plunkett Station	Waterford	post box	
WA731037	Prospect House		Kilcohan	Waterford	House	
WA731038	Borough Boundary,		Dunmore Road, Newtown,	Waterford	Miscellaneous	0
WA731039	Post box		Ross Road, Ferrybank,	Waterford	post box	0
WA731040	Rocklands		adjoining main house, Gracedieu Road	Waterford	Not Stated	0
WA731041	Post box		Saint Johns Park Waterford	Waterford	post box	0
WA731042	Summerville House		48 Summerville Avenue	Waterford	House	0
WA731043	Limestone flags		Lady Lane	Waterford	paving misc	0
WA731044	Waterford Antiques	6	O'Connell Street	Waterford	Not Stated	0
WA731045	Letterbox		Ballybruckle Road	Waterford	letter box	0
WA731046	Limestone paving		The Mall,	Waterford	paving misc	0
WA731047	Limestone Paving		The Mall	Waterford	paving misc	0
WA731048	No Name Entered	123b	123b The Quay (Parade Quay),	Waterford	House	0

WA731049	McLeary 's	121 - 122	The Quay (Parade Quay),	Waterford	Residential / Commercial	22504115
WA731050	Formerly Film Photo Service	117	117 The Quay , (Custom House Quay),	Waterford	shop	0
WA731051	M2 Beauty Salon	116	Custom House Quay	Waterford	shop	0
WA731052	Waterford City Archives Centre		High Street	Waterford	archive	0
WA731053	Limestone paving		Parade Quay	Waterford	paving misc	0
WA731054	Limestone paving		Sweetbriar tce, Lower Newtown	Waterford	paving misc	0
WA731055	Borough Boundary		Ballindud Waterford/ Tramore road	Waterford	Miscellaneous	0
WA731056	Borough Boundary		Carrrew Lodge Ballinamona Kilbarry	Waterford	miscellaneous	0
WA731057	Post Box,		Catherine Street / Waterside,	Waterford	post box	0
WA731058	Newtown Buildings	53	Newtown Road	Waterford	Residential	22830246
WA731059	Newtown Buildings	54	Newtown Road	Waterford	Residential	22830245
WA731060	Newtown Buildings	55	Newtown Road	Waterford	Residential	22830244
WA731061	Hollytrees, Newtown Buildings	56	Newtown Road	Waterford	Residential	22830031
WA731062	Somerton, Newtown Buildings	57	Newtown Road	Waterford	Residential	22830243
WA731063	Newtown Buildings	58	Newtown Road	Waterford	Residential	22830030
WA731064	St. Andrews Terrace	1	Newtown Road	Waterford	Commercial	22830019
WA731065	St. Andrews Terrace	2	Newtown Road	Waterford	Commercial	22830237
WA731066	St. Andrews Terrace	3	Newtown Road	Waterford	Residential	22830238
WA731067	St. Andrews Terrace	4	Newtown Road	Waterford	Commercial	22830018
WA731068	St. Andrews Terrace	5	Newtown Road	Waterford	Commercial	22830239
WA731069	St. Andrews Terrace	6	Newtown Road	Waterford	Commercial	22830240
WA731070	St. Andrews Terrace	7	Newtown Road	Waterford	Residential	22830241
WA731073	Harbour Masters		Meagher’s quay	Waterford	Maritime	

Dungarvan Town Record of Protected Structures

RPS No	Name	No	Address	Address2	Type of Structure	NIAH No.
DV740001	Saint Augustine's Catholic Church		Strand Side South	Dungarvan	church	22821001
DV740002	Dungarvan Castle		Davitt's Quay	Dungarvan	castle	
DV740003	Saint Mary's Church		Emmett Street	Dungarvan	church	22821129
DV740004	19 Strand Side South		Abbeyside	Dungarvan	House	22821011
DV740005	Strand Side South		Abbeyside	Dungarvan	House	22821012
DV740006	Strand Side South		Abbeyside	Dungarvan	House	22821013
DV740007	Dungarvan Market House		Main Street (Parnell Street) Castle Street	Dungarvan	market house	22821147
DV740008	Tannery Town House	2	Church Street	Dungarvan	House	22821160
DV740009	Tannery Cookery School	6	Church Street	Dungarvan	House	22821139
DV740010	20 Church Street		Dungarvan	Dungarvan	House	22821133
DV740011	21 Church Street		Dungarvan	Dungarvan	Residential / Commercial	22821134
DV740012	22 Church Street / Bath Street		Dungarvan	Dungarvan	House	22821135
DV740013	Devonshire Bridge		Abbeyside	Dungarvan	Bridge	22821014
DV740014	24 Church Street		Dungarvan	Dungarvan	House	22821138
DV740015	27 Church Street		Dungarvan	Dungarvan	House	22821145
DV740016	Church Street		Dungarvan	Dungarvan	post box	22821161
DV740017	Kincora House		Strand Side South, Abbeyside	Dungarvan	House	22821010

DV740018	Strand Side South		Abbeyside	Dungarvan	Formerly Barracks	22821008
DV740019	Saint Mary's Catholic Church		Emmett Street	Dungarvan	church	22821109
DV740020	Saint Augustine's Friary Church		Friary Street (Saint Augustine Street)	Dungarvan	church	22821125
DV740021	Formerly Fitzgerald	1	Meagher Street	Dungarvan	Residential / Commercial	22821021
DV740022	Dungarvan Courthouse		Meagher Street	Dungarvan	court house	22821019
DV740023	E.A. Ryan and Company	2	Meagher Street	Dungarvan	Residential / Commercial	22821020
DV740025	The Lady Belle	13	Grattan Square	Dungarvan	public house	22821038
DV740026	Former Provincial Bank		Davitts Quay	Dungarvan	arts centre	22821017
DV740027	Monroe Glebe		Lands End	Dungarvan	country house	
DV740028	Jane Casey	12	Main Street (Parnell Street)	Dungarvan	Residential / Commercial	22821120
DV740029	Aras Bruga		Davitts Quay	Dungarvan	Commercial	22821016
DV740030	The Moorings		Davitt's Quay	Dungarvan	Residential / Commercial	22821149
DV740031	Coach House		Davitt's Quay	Dungarvan	outbuilding	
DV740033	Whyte's Corner		Grattan Square	Dungarvan	Residential / Commercial	22821048
DV740034	Paddy Foley's	12	Grattan Square	Dungarvan	public house	22821039
DV740035	Lawlors Hotel		Meagher Street	Dungarvan	hotel	
DV740036	Christian Brothers School		Emmett Street	Dungarvan	school	22821108
DV740037	Formerly Alicia's	83	O'Connell Street	Dungarvan	Residential / Commercial	22821089
DV740038	The Local	10	Grattan Square	Dungarvan	public house	22821041

DV740039	Mountain View (House)		O'Connell Street	Dungarvan	House	22821071
DV740040	Saint Brigid's Well Brewery		O'Connell Street	Dungarvan	Gates/railings/walls	22821064
DV740041	Siobhan's	14	Grattan Square	Dungarvan	Residential / Commercial	22821037
DV740042	Mansfield	23	Grattan Square	Dungarvan	Commercial	22821027
DV740043	The Enterprise Bar	26	Grattan Square	Dungarvan	public house	22821029
DV740045	35 Grattan Square		Saint Mary Street	Dungarvan	Residential / Commercial	22821098
DV740048	7 South Terrace		O'Connell Street.	Dungarvan	House	22821078
DV740049	Saint Brigid's Well Brewery		O'Connell Street	Dungarvan	brewery	22821066
DV740050	Alwin House	1	South Terrace	Dungarvan	House	22821072
DV740051	2 South Terrace		Dungarvan	Dungarvan	House	22821073
DV740052	3 South Terrace		Dungarvan	Dungarvan	House	22821074
DV740053	4 South Terrace		Dungarvan	Dungarvan	House	22821075
DV740054	5 South Terrace		Dungarvan	Dungarvan	House	22821076
DV740055	6 South Terrace		Dungarvan	Dungarvan	House	22821077
DV740056	8 South Terrace		Dungarvan	Dungarvan	House	22821079
DV740057	Allrounder Sports	21	Grattan Square	Dungarvan	Residential / Commercial	22821025
DV740059	Tom Curran	24-25	Grattan Square	Dungarvan	Residential / Commercial	22821028
DV740060	At your Leisure	9	Grattan Square	Dungarvan	House	22821042
DV740061	Delany	11	Grattan Square	Dungarvan	Residential / Commercial	22821040
DV740066	Murray's	41	Grattan Square	Dungarvan	Residential / Commercial	22821117
DV740067	Rings and Things	2	Main Street	Dungarvan	Residential / Commercial	22821118
DV740068	Toymaster	8	Main Street	Dungarvan	Residential / Commercial	22821119

DV740069	60 Main Street		Dungarvan	Dungarvan	Residential / Commercial	
DV740070	61 Main Street		Dungarvan	Dungarvan	Residential / Commercial	
DV740071	Discount World/Jack Flanagan	63	Main Street (Parnell Street)	Dungarvan	Residential / Commercial	22821156
DV740074	26 Mary Street		Dungarvan	Dungarvan	Commercial	
DV740075	Shamrock	4	O'Connell Street	Dungarvan	Residential / Commercial	22821051
DV740076	Donal's	13	O'Connell Street	Dungarvan	Residential / Commercial	22821055
DV740077	Whelan	16	O'Connell Street	Dungarvan	Residential / Commercial	22821058
DV740078	Ben O'Neill	19	O'Connell Street	Dungarvan	Residential / Commercial	22821061
DV740079	Abrakebabra	80	O'Connell Street	Dungarvan	Residential / Commercial	22821087
DV740080	T. F. Kelly	87	O'Connell Street	Dungarvan	Residential / Commercial	22821093
DV740081	3 Church Street		Dungarvan	Dungarvan	House	22821142
DV740082	4 Church Street		Dungarvan	Dungarvan	House	22821141
DV740083	5 Church Street		Dungarvan	Dungarvan	House	22821140
DV740084	Nicholson Tilson and Company	23	Church Street	Dungarvan	Residential / Commercial	22821136
DV740085	Flynn's	15	Grattan Square	Dungarvan	Residential / Commercial	22821036
DV740086	Tom Curran	16	Grattan Square	Dungarvan	Residential / Commercial	22821035
DV740087	formerly M. J. Curran	31	Grattan Square	Dungarvan	Residential / Commercial	22821034
DV740088	Bookmakers	32	Grattan Square	Dungarvan	Residential / Commercial	22821095
DV740089	Formerly M. J. Curran and Sons	33-34	Grattan Square	Dungarvan	Residential / Commercial	22821096, 22821097
DV740090	Dungarvan Church of Ireland School		Emmett Street	Dungarvan	school	22821128
DV740092	Harbour Mill		Davitts Quay	Dungarvan	converted warehouse	22821151

DV740093	Quay Wall		Davitt's Quay	Dungarvan	quay/wharf	22821163
DV740094	Tourist Office		Meagher Street	Dungarvan	office	22821018
DV740095	18 Main Street		Friary Street	Dungarvan	Residential / Commercial	22821123
DV740096	Eamonn P. King	19	Main Street (Parnell Street)	Dungarvan	office	22821127
DV740097	Robert A. Merry and Company	28	Main Street / 1 Church Street	Dungarvan	Residential / Commercial	22821162
DV740098	Arch	49	Main Street (Parnell Street)	Dungarvan	Residential / Commercial	22821154
DV740099	55 Main Street		Dungarvan	Dungarvan	Residential / Commercial	22821155
DV740100	Murphy	62	Main Street	Dungarvan	Residential / Commercial	22821173
DV740101	5 Saint Mary Street		Dungarvan	Dungarvan	Residential / Commercial	22821100
DV740102	Jitterbeans	65	Main Street	Dungarvan	Residential / Commercial	
DV740103	17 Mary Street		Dungarvan	Dungarvan	Residential / Commercial	22821166
DV740104	formally M. Curran and Sons	02, 03	O'Connell Street	Dungarvan	Residential / Commercial	22821049, 22821050
DV740105	Quealy	82	O'Connell Street	Dungarvan	Residential / Commercial	22821088
DV740106	Nude Food	86	O'Connell Street	Dungarvan	Residential / Commercial	22821092
DV740107	25 Church Street		Dungarvan	Dungarvan	House	22821144
DV740108	26 Church Street		Dungarvan	Dungarvan	House	22821143
DV740109	Railway Bridge		Abbeyside	Dungarvan	Bridge	22821015
DV740115	David Burke Solicitors	24	Saint Mary Street	Dungarvan	House	22821110
DV740118	39-41 Saint Mary Street		Dungarvan	Dungarvan	Residential / Commercial	22821114

DV740119	Wine Buff		Grattan Square	Dungarvan	Residential / Commercial	22821022
DV740120	Zoocom	3	Grattan Square	Dungarvan	Residential / Commercial	22821047
DV740121	Mountain Bar	4	Grattan Square	Dungarvan	Residential / Commercial	22821046
DV740122	Ormond's Café	5	Grattan Square	Dungarvan	Residential / Commercial	22821045
DV740123	Ladbrokes	6	Grattan Square	Dungarvan	Residential / Commercial	22821044
DV740124	Tommy Power	07, 08	Grattan Square	Dungarvan	public house	22821043
DV740125	Old Town Hall/Dungarvan Museum		Friary Street (Saint Augustine Street)	Dungarvan	town/county hall	22821122
DV740126	The Park		Jacknell Street	Dungarvan	Gates/railings/walls	22821130, 22821131,
DV740127	St Josephs Hospital /Former Workhouse		Mitchell Street	Dungarvan	hospital	
DV740128	Thatch House		Strand Side South, Abbeyside	Dungarvan	Thatch	22821002
DV740129	18 Saint Mary Street		Dungarvan	Dungarvan	Residential / Commercial	22821101
DV740130	Glandore House		Church Street	Dungarvan	House	22821137
DV740131	Rich Rags	5	O'Connell Street	Dungarvan	Residential / Commercial	22821052
DV740132	Park House		Main Street (Parnell Street) Castle Street	Dungarvan	Residential / Commercial	22821148
DV740133	Maloney's Store		Main Street	Dungarvan	Formerly Warehouse	22821150
DV740134	Wild Orchid	74	O'Connell Street	Dungarvan	Residential / Commercial	22821086
DV740135	Robbies Fresh Food	64	Main Street	Dungarvan	Residential / Commercial	22821157

			(Parnell Street)			
DV740136	Mc Kenna Computers	66	Main Street (Parnell Street)	Dungarvan	Residential / Commercial	22821158
DV740137	Augustine Friary		Main Street	Dungarvan	Presbytery/parochial/curate's House	22821124
DV740138	Fitzgerald	2	Grattan Square	Dungarvan	Residential / Commercial	22821024
DV740139	An Gaba	13	Main Street	Dungarvan	Residential / Commercial	22821121
DV740150	Strand Side South		Abbeyside	Dungarvan	House	22821003
DV740153	Strand Side South		Abbeyside	Dungarvan	House	22821006
DV740154	Strand Side South		Abbeyside	Dungarvan	quay/wharf	22821007
DV740155	The Causeway		Abbeyside	Dungarvan	building misc	22821159
DV740156	Capitol Cleaners	14	O'Connell Street	Dungarvan	Residential / Commercial	22821056
DV740157	formerly Tobin	15	O'Connell Street	Dungarvan	Residential / Commercial	22821057
DV740158	Wyley	17	O'Connell Street	Dungarvan	Residential / Commercial	22821059
DV740159	18 O'Connell Street		Dungarvan	Dungarvan	Residential / Commercial	22821060
DV740162	Scoil na gCeard		O'Connell Street	Dungarvan	school	22821070
DV740165	FBD Insurance Group	65	O'Connell Street	Dungarvan	Residential / Commercial	22821082
DV740167	73 O'Connell Street		Dungarvan	Dungarvan	Residential / Commercial	22821085
DV740168	Liam Power	84	O'Connell Street	Dungarvan	Residential / Commercial	22821090
DV740169	McKeon's	85	O'Connell Street	Dungarvan	Residential / Commercial	22821091
DV740170	Liam Rossitor	88	O'Connell Street	Dungarvan	Residential / Commercial	22821094
DV740172	Dungarvan National and Commercial Snooker Club	20	Saint Mary Street	Dungarvan	House	22821102

DV740180	Dungarvan Community Welfare Office	35	Mary Street	Dungarvan	Residential / Commercial	22821113
DV740181	Dungarvan Enterprise Centre		Main Street (Parnell Street)	Dungarvan	Formerly School	22821126
DV740182	Barrys Warehouse		Church Street	Dungarvan	warehouse	22821146
DV740184	43 Main Street		Dungarvan	Dungarvan	Residential / Commercial	22821153
DV740187	2-3 Mary Street		Dungarvan	Dungarvan	Residential / Commercial	22821165
DV740193	42 Main Street (Parnell Street)		Dungarvan	Dungarvan	Residential / Commercial	22821172
DV740194	Cairbre House (old workhouse)		Old Hospital Road	Dungarvan	Formerly Hospital	
DV740195	Strand Side South		Abbeyside	Dungarvan	Formerly Barracks	22821009

Waterford County Record of Protected Structures

	Name	Address/Townland	Type of Structure	NIAH No.2
WA750001	Ballynaparka House	Ballynaparka	Country house	22902924
WA750002	Thatch House	Annestown	Not Stated	22814006
WA750005	old coastguard station	Dysert, Ardmore	Coastguard station	
WA750006	Ardmore Rectory	Ardmore	Rectory/glebe/vicarage/curate's House	22827007
WA750007	St. Paul's Church	Ardmore	Church	22827005
WA750008	Melrose House	Ardmore	House	22827003
WA750009	Straw House	Main Street, Ardmore	Thatch	22827014
WA750010	St. Declan's Catholic Church	Ardmore	Church	22827021
WA750011	Thatch House	Main Street, Ardmore	Thatch	22827017
WA750012	St. Mary's Catholic Church	Grange	Church	22903803
WA750013	Ardoginna House (Ardo House)	Ardoginna	Country house	22904012
WA750014	Caherbrack House	Caherbrack	Farm house	22901303
WA750015	Thatched House	Matthews Crossroads	Thatch	22901605
WA750017	Glenbeg House	Glen Beg	Country House And Demense	22902002 Main House 22902018 farm complex 22902019 gatelodge 22902020 Gateway
WA750018	Garda Síochána Station	Ballyduff Lower	Formerly Barracks	22808001
WA750019	River Action Restaurant	Ballyduff	Residential / Commercial	
WA750020	St Michael's Church	Ballyduff	church	22808003
WA750021	Castle Farm (Ballyduff Castle)	Ballyduff Lower	Country House And Demense	22808013
WA750022	St. Ann's Catholic church	Ballylaneen	Church	22902403
WA750023	The Bally Inn	Ballylaneen	Thatch Public House	

WA750024	Thatch House	Garranturton	Thatch	22902402
WA750025	Ballynatray House and Demense	Ballynatray Demesne	Country House And Demense	22903712 Main House 22903711 farm complex 22903713 icehouse 22903714 farmcomplex 22903718 gateway
WA750026	Templemichael Church	Templemichael	church	22903710
WA750027	Saw/Flour Mills	Ballynatray Demesne	Mill	22903715
WA750028	Thatch House	Ballynagigla	Thatch	22812018
WA750029	Cap's Cross Roads	Kilduane	Thatch	22902506
WA750030	Roseville Cottage	Templeyvrick	Thatch	22902406
WA750031	Cap's Cross Roads (east)	Kilduane	Thatch	22902507
WA750032	St. Mary's Catholic Church	Kilduane	church	22812019
WA750033	Thatched cottage	Kilduane	Thatch	22812025
WA750034	Butlerstown Castle	Butlerstown South	country house	22901707 Note: Carriage House Only
WA750035	Mount Congreve Estate	Mountcongreve	country house	22901710
WA750036	Thatch House	Garraun	Thatch	22902203
WA750037	Cappoquin House (gateway)	Cappoquin	Gates/railings/walls	22810027
WA750038	Dromana House	Dromana	Country House And Demense	22902918 22902917
WA750039	The Old Schoolhouse	Ballywelligan	school	22902913
WA750040	The Market House	Cappoquin	market house	22810099
WA750041	Camphire		country house	
WA750042	A. Walsh	Main Street, Cappoquin	Not Stated	22810042
WA750043	Tourin Castle	Tourin Demesne	farmyard complex	22902916

WA750044	Main Street	Cappoquin	Residential / Commercial	22810072
WA750045	Cappoquin House	Cappoquin	Country House And Demense	22810098
WA750046	Blackwater House	Main Street, Cappoquin	public house	22810020
WA750047	Camphire House	Camphire	country house	22819027
WA750048	Sleady Castle	Sleadycastle	fortified house	
WA750049	Main Street	Cappoquin	Residential / Commercial	22810071
WA750050	Avonmore Bridge	Cappoquin	Bridge	22810097
WA750051	Mass Lane	Cappoquin	House	22810002
WA750052	St. Anne's Church	Cappoquin	church	22810074
WA750053	Mount Melleray	Cappoquin	abbey	22902134, 22902121, 28-33, 35 36
WA750054	St. Mary's Catholic Church	Cappoquin	church	22810075
WA750055	Thatched cottage	Crinnaghtaun West	Thatch	22902101
WA750056	Sportsman's Bar	Main Street, Cappoquin	Not Stated	22810067
WA750057	Tourin House	Tourin Demesne	Country House And Demense	22902915
WA750058	Twomey & Co.	Main Street, Cappoquin	Not Stated	22810066
WA750059	Barron's Bakery	Cook Street, Cappoquin	Commercial	22810062
WA750060	Salterbridge House	Salterbridge	Country House And Demense	22902112-15 22902124-27
WA750061	Whitechurch House	Bridgequarter	country house	22903020, 22903028, 22903019
WA750062	Richmond House	Cappoquin	Not Stated	22902110
WA750063	2 Main Street	Cappoquin	House	22810006
WA750064	Dromana Gate	Dromana	folly	22902919
WA750065	Carnegie Free Library	Cappoquin	library	22810025
WA750066	1 Main Street	Cappoquin	House	22810005
WA750067	Churchtown House	Churchtown	country house	22900305

WA750073	The Mount	Cheekpoint	folly	22901016
WA750074	Daisybank House	Cheekpoint	House	22901006
WA750076	D'Loughtane House	D'Loughtane	country house	22903708, 22903709, 22903716
WA750077	Clashmore House	Clashmore	farmyard complex	22826018
WA750078	clashmore chimney distillery	Clashmore	Chimney/footbridge	22826003, 22826020, 22826021
WA750079	Church of Saints Quan and Broghan	Cloneapower	church	22802008
WA750080	Gurteen Le Poer	Gurteen Lower	Country House And Demense	22900203/ 5/6/7/8/9/ 10/13
WA750081	Kilmanahan Castle	Kilmanahan	country house	
WA750082	Landscape House	Landscape	country house	22900210
WA750084	St. Thomas Bridge	Tickincor Lower	Bridge	22900201
WA750085	Tickincor Castle	Tickincor Lower	fortified house	
WA750086	Knocklofty Bridge	Kilnamack West	Bridge	22900104
WA750087	Gurteen Le Poer Lodge	Gurteen Lower	gate lodge	22900203
WA750088	St. Abigails Catholic Church	Kilgobnet	church	22903103
WA750089	Cloncoskraine	Knockahavaun	country house	22903109, 22903110
WA750090	Mount Odell		Archaeological	22903031
WA750092	Bon Saveur Convent	Carriglea	country house	22903005
WA750093	Old Pike Bridge	Burgery	Thatch	22903107
WA750094	Moss Rose Cottage	Dock Road, Dunmore East	Thatch	
WA750095	Holy Cross Catholic Church	Killea	church	22902705
WA750096	Bella Vista	Dock Road, Dunmore East	House	22817051
WA750099	Grendon	Dock Road, Dunmore East	Thatch	22817031
WA750100	Lighthouse	Dunmore East	lighthouse	22817063
WA750102	St. Andrew's Church	Dunmore East	church	22817019
WA750103	The Haven	Dunmore East	Residential / Commercial	22817021

WA750104	Coole Cottage	Dock Road, Dunmore East	Thatch	22817036
WA750106	Appleblossom cottage	Dock Road, Dunmore East	Thatch	
WA750107	Dunmore Harbour House	Dunmore East	House	22817065
WA750108	Harbour	Dunmore East	pier/jetty	22817064
WA750110	Woodville	Dock Road, Dunmore East	Thatch	22817035
WA750111	Loftus View	Dock Road, Dunmore East	Thatch	22817034
WA750112	Sunrise Cottage	Dock Road, Dunmore East	Thatch	22817033
WA750113	Hook View	Dock Road, Dunmore East	Thatch	22817032
WA750114	Sunview / Crab Cottage	Dock Road, Dunmore East	Thatch	22817037
WA750115	Dock Road	Dunmore East	Not Stated	22817039
WA750116	Dock Road	Dunmore East	stables	22817020
WA750117	Faithlegg Catholic Church	Coolbunia	church	22901010
WA750118	Faithlegg House	Faithlegg	country house	22901005
WA750119	Dunphy's pub	Kill	Not Stated	22813002
WA750120	Our Lady of Mount Carmel	Kill	church	22813006
WA750121	Gardenmorris House	Gardenmorris	country house	22813009, 22813010, 22813011, 22813013
WA750122	Kilmacthomas workhouse	Kilmacthomas	Workhouse	
WA750123	Railway Viaduct	Kilmacthomas	Bridge	22805035
WA750124	St. Anne's Catholic Church	Fews	church	22901501
WA750125	Carroll's Cross Roads	Ballyshonock	House	22901610
WA750126	All Saints' Catholic Church		church	22806001
WA750128	The Sweep Pub	Adamstown	Not Stated	22901607
WA750129	Whitfield Court	Dooneen	country house	22901711
WA750130	St. Mary's Church	Kilmeadan	church	22900803
WA750131	Pouldrew Mill	Gortaclade	Mill	22900806
WA750132	Comeragh House	Comeragh House	country house	22901507

WA750134	St. Carthage's Cathedral	Lismore	cathedral	22809088
WA750135	Carnegie Free Library	Lismore	library	22809045
WA750136	Castle Dodard	Knockaungarriff	House	22901201
WA750137	Fortwilliam House	Fortwilliam	Country House And Demense	22902006 house 22902007 outbuildings 22902022 gateway
WA750138	Ballyin House	Ballyin Lower	mill house	22902119
WA750139	Lismore Castle	Lismore	castle	22809071, 22809073, 22809074, 22809075, 22809076, 22809077, 22809078, 22809079, 22809180, 22809188
WA750140	Lismore (old) Railway Station	Lismore	railway station	22809062
WA750141	Lismore Courthouse	Lismore	Formerly Courthouse	22809034
WA750142	Lismore Presbyterian Church	Lismore	church	22809174
WA750143	formerly Governors House	Lismore Union Workhouse	Workhouse	22902116
WA750144	Thatched cottage	Glenasaggart	Thatch	22902911
WA750145	Ballygally House	Ballygally	country house	22902003 Main House 22902021
WA750146	St. Carthage's Catholic Church	Lismore	church	22809107
WA750147	Credit Union House	Lismore	House	22809023
WA750148	Ballysaggartmore House (Towers)	Barranamanoge	folly	22902013
WA750150	Cavendish Bridge	Lismore	Bridge	22809082
WA750151	Ambrose Power Memorial	Lismore	monument	22809033

WA750152	Ballyin (Flour) Mill	Ballyin Lower	Not Stated	22902118
WA750153	R. Foley	Main Street ,Lismore	public house	22809067
WA750154	Madden's Bar	Main Street ,Lismore	Residential / Commercial	22809066
WA750156	Lismore Wine Vaults	West Street, ,Lismore	Not Stated	22809039
WA750157	Red House Inn	Main Street ,Lismore	Not Stated	22809032
WA750158	West End Bar	West Street ,Lismore	public house	22809040
WA750159	The Arcade	Main Street ,Lismore	Residential / Commercial	22809005
WA750160	O'Brien	Main Street ,Lismore	Residential / Commercial	22809063
WA750162	Catholic Church of St. Helena of the Cross	Glennanore	church	22900601
WA750163	Barrack Street	Passage East	House	22807042
WA750164	Post Office Square	Passage East	House	22807023
WA750165	Parade Square	Parade Square,Passage East	House	22807054
WA750166	Parade Square	Passage East	House	22807053
WA750167	St. Anne's Church	Passage East	Formerly Church	22807032
WA750168	Geneva Barracks	Newtown	barracks	22901810
WA750169	St. John the Evangelist Catholic church	Crooke	church	22901809
WA750170	Garda Síochána Station	Barrack Street,Passage East	barracks	22807043
WA750171	Curraghmore House and Demense	curraghmore	Country House And Demense	22900816
WA750172	Clonagam Church	Curraghmore	church	22900809
WA750173	St. John's Church	Ballycahane	church	22900807
WA750174	Mayfield House	Portlaw	country house	22803035
WA750175	Rocketts Castle	Mayfield or Rockets Castle	country house	
WA750176	Woodlock	Portlaw	country house	22803001, 22803002
WA750177	Coolfinn House	Coolfinn	country house	
WA750179	Curraghmore House (Farmyard)	Curraghmore	farmyard complex	22900811
WA750180	The Cotton Factory/ Tannery Complex	Portlaw	Mill	22803073 etc
WA750181	Saw Mills	Coolfinn	Mill	22900820
WA750182	Le Poer Tower	Tower Hill, Clonegam	monument	22900403

WA750183	The Square	Stradbally	Not Stated	22811016
WA750184	Ballyvoyle New Bridge	Ballyvoyle	Bridge	22903204
WA750185	Old Rectory	Stradbally	Rectory/glebe/vicarage/curate's House	22811023
WA750186	The Square	Stradbally	Not Stated	22811026
WA750187	Old School House	Stradbally	school	22811002
WA750188	The Square	Stradbally	House	22811017
WA750189	Catholic Church of the Holy Trinity	Stradbally	church	22811034
WA750190	(Old) St. James Church	Stradbally	church	
WA750191	Church Lane	Stradbally	Thatch	22811003
WA750192	Durrow Viaduct	Durrow	Bridge	22902401
WA750193	Woodhouse	Woodhouse	country house	22811044
WA750194	The Square	Stradbally	House	22811015
WA750195	The Square	Stradbally	House	22811023
WA750196	Barron Hall	Stradbally	Formerly School	22811031
WA750197	The Square	Stradbally	House	22811019
WA750198	St. James' Church	Stradbally	church	22811001
WA750199	The Square	Stradbally	Not Stated	22811025
WA750200	Cove Cottage	Stradbally	Thatch	22811009
WA750201	Myrtle House	Stradbally	Not Stated	22811022
WA750202	The Square	Stradbally	Not Stated	22811018
WA750203	St. Mary's Church	Fountain	church	22902902
WA750204	Strancally Castle	Strancally Demesne	Country House And Demense	22903401, 22903402
WA750205	Headborough House	Headborough	Country House And Demense	22902905, 22902927 22902929
WA750206	Lisfinny House	Lisfinny	Not Stated	22902807
WA750207	Sapperton House	Sapperton North	country house	22902901 main house 22902928 outbuildings
WA750208	West Street (south side)	Tallow	warehouse	22818031
WA750209	West Street (south side)	Tallow	House	22818030
WA750210	Lynch	West Street (south side),Tallow	Residential / Commercial	22818034

WA750211	Moorehill House	Moorehill	Country House And Demense	
WA750212	West Street (north side)	Tallow	Formerly Rectory/glebe/vicarage/curate's House	22818025
WA750213	St. Mary's Cisterian Abbey	Glencairn	country house	22902005
WA750214	West Street (south side)	Tallow	House	22818029
WA750215	West Street (north side)	Tallow	House	22818022
WA750216	Church of the Immaculate Conception	Tallow	church	22818013
WA750218	Tallow Bridge	Tallowbridge Lands	Bridge	22902806
WA750219	Knockanore		church	22823002
WA750220	(Former) School house	Glenawillin, Tallow	school	22902801
WA750221	Chapel Street	Tallow	House	22818017
WA750222	Tallow Enterprise Centre	West Street (south side),Tallow	warehouse	22818032
WA750223	McCarthy	West Street (south side),Tallow	Residential / Commercial	22818033
WA750224	Healy & Crowley Solicitors	West Street (south side),Tallow	Residential / Commercial	22818035
WA750225	Hartigan	West Street (south side),Tallow	Residential / Commercial	22818036
WA750226	Ann Tobin	West Street (south side),Tallow	Residential / Commercial	22818037
WA750227	Main Street/West Street	Tallow	Residential / Commercial	22818038
WA750228	St. Paul's Church	Tallow	church	22818047
WA750229	Lyons	Convent Street,Tallow	Residential / Commercial	22818007
WA750230	Devonshire Arms Hotel	Main Street,Tallow	hotel	22818045
WA750231	T.J. Keniry	Convent Street (east side),Tallow	public house	22818010
WA750232	J. Ryan	Main Street (west side),Tallow	Residential / Commercial	22818039
WA750233	Parochial House	Main Street (west side),Tallow	House	22818043

WA750234	M. Cunningham	West Street (north side),Tallow	Residential / Commercial	
WA750235	West Street (north side)	Tallow	Residential / Commercial	22818021
WA750236	Parocial Hall	West Street (north side),Tallow	Formerly School	22818024
WA750237	Main Street (east side)	Tallow	House	
WA750238	1 Rosebank Terrace	Tramore	House	22816135
WA750240	Christ Church (monument)	Church Road, Tramore	monument	22816006
WA750242	Tramore Coastguard Station	Tramore	coastguard station	22816013
WA750245	Tramore Railway Station	Tramore	railway station	22816111
WA750247	Towers	Brownstown Head	Beacon	22902609
WA750248	Catholic Church of the Holy Cross	Tramore	church	22816038
WA750249	The Metal Man	Great Newtown Head	Beacon	22902605
WA750252	Christ Church	Church Road,Tramore	church	22816006
WA750253	3 Rosebank Terrace	Tramore	House	22816201
WA750254	23 Queen Street	Tramore	House	22816204
WA750255	22 Queen Street	Tramore	House	22816142
WA750256	Corballymore House	Summerville	country house	22902710
WA750259	5 Rosebank Terrace	Upper Branch Road,Tramore	Not Stated	22816203
WA750260	4 Rosebank Terrace	Upper Branch Road, Tramore	House	22816202
WA750261	24 Queen Street	Tramore	House	22816205
WA750262	2 Rosebank Terrace	Upper Branch Road, Tramore	House	22816200
WA750263	Banyan Tree Restaurant	Lower Branch Road, Tramore	House	22816125
WA750264	Newtown House	Tramore	country house	22902606
WA750265	Spring Farm	Tramore	Thatch	22902607
WA750266	Victoria House	Queen Street,Tramore	public house	22816145
WA750267	Power	Queen Street,Tramore	public house	22816141
WA750269	Main Street	Villierstown	Not Stated	22819016
WA750270	Villierstown (Former) School	Villierstown	school	22819015

WA750271	Mary Villiers Stuart Monument	Villierstown	monument	22819005
WA750272	The Green	Villierstown	House	22819004
WA750273	Pilgrim's Rest (House)	Villierstown	House	22819018
WA750274	Villierstown Church	Villierstown	church	22819003
WA750275	Church House	Villierstown	House	
WA750276	Halfway House	Ballycanvan Little	Bridge	22901815
WA750277	Mary Kennedy's Pub	Callaghane Bridge	Thatch Public House	22901808
WA750281	Ballyglan House	Ballyglan	country house	22901814
WA750282	Gaultiere Lodge	Ballyglan	country house	
WA750283	Mount Alto	Knockavelish	country house	
WA750284	Dromina House	Woodstown Lower	country house	22901812
WA750285	Ballydavid House	Ballydavid	country house	22901811
WA750287	Mocollop Castle	Mocollop	House	22901904
WA750288	Farmhouse	Curraheenavoher	farm house	22900506
WA750289	Templeyvrick		Thatch	22812002
WA750291	Carriganore House	Woodstown (ED Killoteran)	country house	22900902
WA750292	Pembrokestown House	Gaulstown	country house	22901713
WA750293	Parsons Cottage	Boolakiely	Thatch	22902910
WA750295	Thatch house	Kilcannon (Hely)	Thatch	22903012
WA750296	Belleville Park (House)	Belleville	country house	22902104, 22902106, 22902122, 22902123
WA750297	Derriheen House	Cappoquin	country house	22810056
WA750299	Thatched House	Boolakiely	Thatch	22902909
WA750300	The Old Forge	Scart	Thatch	22902907
WA750301	Thathced House	Lacken	Thatch	22902102
WA750302	Thatch House	Poulbautia	Thatch	22902201
WA750303	Curraghmoreen House	Currgahmoreen	country house	
WA750304	The Thatch	Ballyheeny	Thatch	22826001
WA750305	Thatch Licky Bridge	Ballyheeny	Thatch	
WA750306	Thatched cottage	Glen Lower	Thatch	22900211
WA750307	Thatched cottage	Dunhill	Not Stated	22815003
WA750308	Thatched cottage	Dunhill	Thatch	22815002
WA750309	Nead n Farraige	Dunmore East	Thatch	22817011
WA750310	Baymount	Dunmore East	Formerly Barracks	22817023
WA750311	Cliff Cottage	Dunmore East	Thatch	22817008

WA750313	Ballygunner Castle	Ballygunnercastle	House	22901816
WA750314	Coum Bridge	Ballynakill	Thatch	22902305
WA750315	Rossmore House	Kilmacthomas	House	22805040
WA750316	Fairbrook Factory (House)	Newtown (E.D. Kilmeadan)	Mill	22901602, 22901613
WA750317	Pouldrew House	Gortaclade	Not Stated	22900806
WA750319	Headborough Gate Lodge	Headborough	gate lodge	22902904
WA750320	Mount Kennedy	Curragheen (E.D. Mountkennedy)	country house	22902302
WA750322	Mill owners house	Ballyrafter Flats	mill house	22809085
WA750323	Butter mill	Ballyrafter Flats	Mill	22809084
WA750324	St. Mary's Convent	Lismore	Formerly School	22809144
WA750325	St. Mary's Convent	Lismore	convent/nunnery	22809144
WA750326	Birchell's Bridge	Knockaunbrandaun	Thatch	22900604
WA750327	Nirevale	Ballymacarbry	farm house	22801008
WA750328	Foxmount	Cross (ED Faithlegg)	country house	
WA750330	The Manor	Coolfinn	Not Stated	22900821
WA750331	Coolfinn Rectory	Coolfinn	country house	
WA750332	RIC Barracks	Portlaw	Formerly Barracks	22803072
WA750333	Clodiagh House	Portlaw	House	22803041
WA750334	Portlaw Courthouse/School	Portlaw	court house	22803055
WA750335	Thatch cottage	Porbeagle	Thatch	22903202
WA750336	Glenview	Stradbally	House	22811004
WA750337	Cliff Cottage	Ballyvoyle	Thatch	
WA750338	Almshouse	Townparks East (ED Tallow)	Formerly Almshouse	22902804
WA750339	Almshouse (terrace)	Townparks East (ED Tallow)	almshouse	22818051
WA750340	Ballymartin House	Ahaunboy North	country house	22902808
WA750341	Strancally Castle	Kilmanicholas	farmyard complex	22903406
WA750342	Garrarus		Thatch	22902603
WA750343	Thatched cottage	Ballinattin	Thatch	22902608
WA750345	1 Gurteen Terrace	Tramore	House	22816058
WA750346	Tramore House	Tramore	House	22816061
WA750347	Gurteen Terrace	Pond Road,Tramore	House	22816059

WA750348	Christ Church Resource Centre	Tramore	Formerly School	22816007
WA750349	Woodstown House	Woodstown Lower	country house	22901813
WA750350	Stone depot	Lemybrien	Stone Depot	
WA750351	Stone depot	Lemybrien	Stone Depot	
WA750352	Stone depot	Lemybrien	Stone Depot	
WA750353	Stone depot	Lemybrien	Stone Depot	
WA750355	Stone depot	Gortnalaght	Stone Depot	
WA750363	Stone depot	Kilcommeragh	Stone Depot	
WA750364	Stone depot	Kilcommeragh	Stone Depot	
WA750365	Stone depot	Kilcommeragh	Stone Depot	
WA750366	Stone depot	Furraleigh	Stone Depot	
WA750367	Stone depot	Furraleigh	Stone Depot	
WA750368	Stone depot	Furraleigh	Stone Depot	
WA750369	Stone depot	Furraleigh	Stone Depot	
WA750370	Stone depot	Graiguearush	Stone Depot	
WA750371	Stone depot	Graiguearush	Stone Depot	
WA750372	Stone depot	Ashtown	Stone Depot	
WA750373	Stone depot	Kilclooney	Stone Depot	
WA750374	Stone depot	Kilclooney	Stone Depot	
WA750375	Stone depot	Kilclooney	Stone Depot	
WA750376	Stone depot	Kilclooney	Stone Depot	
WA750377	Stone depot	Kilclooney	Stone Depot	
WA750378	Stone depot	Coolnahorna	Stone Depot	
WA750379	Stone depot	Coolnahorna	Stone Depot	
WA750380	Stone depot	Coolnahorna	Stone Depot	
WA750381	Stone depot	Munsburrow	Stone Depot	
WA750382	Stone depot	Munsburrow	Stone Depot	
WA750383	Stone depot	Munsburrow	Stone Depot	
WA750384	Stone depot	Feddans	Stone Depot	
WA750385	Stone depot	Ballyhest	Stone Depot	
WA750386	Stone depot	Ballyhest	Stone Depot	
WA750387	Stone depot	Ballyhest	Stone Depot	
WA750388	Stone depot	Ballygarret	Stone Depot	
WA750389	Stone depot	Ballynab	Stone Depot	
WA750390	Stone depot	Ballyknock	Stone Depot	
WA750391	Stone depot	Curraghduff	Stone Depot	
WA750392	Stone depot	Joanstown	Stone Depot	
WA750393	Stone depot	Joanstown	Stone Depot	
WA750394	Stone depot	Joanstown	Stone Depot	
WA750395	Stone depot	Joanstown	Stone Depot	

WA750396	Stone depot	Joanstown	Stone Depot	
WA750398	Monatray House	Monatray West	country house	22904005
WA750400	Thatch Cottage	Balleighteragh East	Thatch	22903106
WA750401	Copper Mine Complex	Knockmahon	Not Stated	22902504
WA750402	St. Mary's Catholic Church	Tooraneena	church	22901304
WA750407	Woodbine Hill House	Prospecthall	country house	22904002, 22904007
WA750408	Mine Head Lighthouse	Monagoush	Lighthouse And Keepers Houses	22903904, 22903905, 22903906
WA750410	Hope Cottage	Dunmore East	Not Stated	22817069
WA750411	Ballynacourty Lighthouse	Keepers House	Lighthouse And Keepers Houses	22822005, 22822007
WA750412	The Ritz	Newtown Road,Tramore	Not Stated	22816015
WA750413	Brooklodge	Cappagh	farm house	22902202
WA750414	Hayes	Thatched Pub, Leckaun	Not Stated	22902704
WA750415	Rock House	Dysert,Ardmore	House	22827001
WA750416	Lismore Arms Hotel	Main Street ,Lismore	Not Stated	22809001
WA750417	Greehy	Main Street ,Lismore	Residential / Commercial	22809026
WA750418	Bunmahon Glebe House	Templeyvrick	Rectory/glebe/vicarage/ curate's House	22812001
WA750419	Bunmahon Store	Templeyvrick	Residential / Commercial	22812004
WA750420	Kennedy	Templeyvrick	Residential / Commercial	22812006
WA750421	Kennedy	Templeyvrick	House	22812007
WA750423	O'Ciardubain	Templeyvrick	public house	22812010
WA750424	Dromore Cottage	Dromore	Thatch	22903409
WA750425	Thatched cottage	Dunmoon North	Thatch	22903407
WA750426	Thatched Cottage	Ballymacarbery	Thatch	22900501
WA750427	Mocollop	Ballyduff	gate lodge	22901903
WA750429	The Thatch Cottage	Ballynaparka	Thatch	22820003
WA750430	Garda Siochana Station	Curtiswood	Garda Station	22801004
WA750431	Dhu chorrig/Stella Maris	Duffcarrick, Ardmore	House	22827002

WA750432	Garda Siochana Station	Kilbarrymeaden	Not Stated	22813001
WA750433	Garda Siochana Station	Post Office Lane, Dunmore East	Not Stated	22817053
WA750434	Garda Siochana Station	West Street,Tallow	House	22818020
WA750435	Cappagh House	Cappagh	Country House And Demense	22903011 House 22903010 Old Cappagh house 22903009 gate lodge 22903025, 26 gateways
WA750436	Rockfield House	Cappagh	country house	22903015
WA750437	Rock House	Helvick	House	22825010
WA750438	Saint Nicholas's Catholic Church	Helvick	church	22824006
WA750439	Farmhouse	Shankill	farm house	22824001
WA750441	Ringville	Knockanpower	Thatch	22824004
WA750443	Kelleher's	Main Street, Cappoquin	Not Stated	22810011
WA750447	Formerly Flynn's	Main Street, Cappoquin	House	22810009
WA750448	Candy Cottage	Glenshask Beg	Thatch	22902016
WA750449	Glenshelane Cottage	Lyre east	House	22902103
WA750450	Rubble Stone Tower	Lyre east	Not Stated	22902137
WA750452	Carnegie Library	Ballyduff	library	22808008
WA750453	Hely's	Main Street, Cappoquin	House	22810112
WA750454	Portlaw Bridge	Portlaw	Bridge	22803064
WA750456	Villierstown House (The Parsonage)	Villierstown	Rectory/glebe/vicarage/curate's House	22819002
WA750458	Mill Street	Cappoquin	Residential / Commercial	22810079
WA750459	Formerly Stone Wall café	Main Street, Cappoquin	Residential / Commercial	22810010
WA750460	The Central Bar	Main Street, Cappoquin	Residential / Commercial	22810015

WA750461	Toortane House	Ballyvecane Upper	country house	22902811 22902810 gate Lodge
WA750462	Cloisters (The)	Main Street, Lismore	House	22809002
WA750463	7 Main Street	Lismore	Not Stated	22809006
WA750464	Daly's	Main Street ,Lismore	Not Stated	22809007
WA750465	Coghlan	Main Street ,Lismore	Residential / Commercial	22809009
WA750466	Formerly Café Molaise	Main Street ,Lismore	Residential / Commercial	22809010
WA750467	Crotty/ Jonathan Ackroyd	Main street ,Lismore	Residential / Commercial	22809011
WA750468	Main Street	Lismore	House	22809012
WA750469	Chips 'n' Things	Main Street ,Lismore	Residential / Commercial	22809013
WA750470	TJ Hegarty's/ Harvest	Main Street ,Lismore	Not Stated	22809014
WA750471	O hÉalaithe	Main Street/Ferry Lane, Lismore	Residential / Commercial	22809015
WA750473	M.J. O'Donnell	Ferry Lane ,Lismore	Residential / Commercial	22809017
WA750474	Castle Lodge (The)	Main Street ,Lismore	public house	22809018
WA750475	Classroom (The)	Main Street ,Lismore	Not Stated	22809019
WA750476	Eamonn's Place	Main Street ,Lismore	public house	22809020
WA750477	Castle View House	Lismore	House	22809090
WA750478	Deerpark Road	Lismore	Not Stated	22809029
WA750479	The Hall	Ballysaggart Beg (East)	House	22809141
WA750480	Church Lane	Lismore	handball alley	22809132
WA750481	Lehane	Main Street ,Lismore	House	22809093
WA750484	Mary FM Fashions	Main Street, ,Lismore	Not Stated	22809022
WA750485	76 New Street	Lismore	House	22809052
WA750486	O'Gorman	Main Street ,Lismore	Residential / Commercial	22809027
WA750487	McGrath	Main Street ,Lismore	Residential / Commercial	22809028
WA750488	Outbuilding West Street	Lismore	Not Stated	22809035
WA750489	Murphy	West Street ,Lismore	Not Stated	22809037
WA750492	The Dispensary	Portlaw	dispensary	
WA750493	Formerly Buttons Public House	Main Street, Cappoquin	public house	22810007
WA750494	Uniacke		Not Stated	22810008

WA750495	Lehane's	Main Street, Cappoquin	Residential / Commercial	22810013
WA750496	Main Street	Cappoquin	Residential / Commercial	22810014
WA750497	Main Street/Castle St.	Cappoquin	public house	22810017
WA750498	Railway Station Hse.	Cappoquin	railway station	22810053
WA750500	Main Street	Cappoquin	Residential / Commercial	22810024
WA750501	Olden	Barrack Street, Cappoquin	Residential / Commercial	22810028
WA750504	Walsh's	The Green/Barrack Street, Cappoquin	Not Stated	22810041
WA750505	Caldbeck Memorial Fountain	Coolroe, Portlaw	fountain	22803037
WA750506	Moore's	Main Street, Cappoquin	Not Stated	22810064
WA750507	The Cornerstone	Cappoquin	Not Stated	22810065
WA750508	M. Kerfoot	Mill Street,Cappoquin	House	22810092
WA750509	Main Street	Main Street,Cappoquin	House	22810093
WA750510	M. Collender	Cook Street,Cappoquin	Residential / Commercial	22810061
WA750512	Cummins Betting Office	Main Street,Cappoquin	Residential / Commercial	22810068
WA750513	Fisherman's Hall	Dock Road, Dunmore East	hall	22817042
WA750514	St. Patricks Church	Coolfin	church	22900819
WA750515	Holy Trinity Church	Portlaw	church	22803032
WA750516	The Meat Centre	Main Street,Cappoquin	Residential / Commercial	22810070
WA750517	The Manse	Ballycahane	manse	22803066
WA750518	Presbyterian Church	Ballycahane Portlaw	church	22803065
WA750519	Cappoquin Railway Viaduct	Kilbree East	Bridge	22810114
WA750521	Little Bridge	Cappoquin	Bridge	22810054
WA750522	Cook Street	Cappoquin	House	22810058
WA750523	Springfield House	Coolroe	Not Stated	22803033
WA750525	Glebe House	Coolboa	Rectory/ glebe/ vicarage/ curate's House	22826017, 22826025

WA750526	Villierstown	Gate Lodge	gate lodge	22819001
WA750529	Thatched house	Glennaglogh	Thatch	
WA750530	Briar Rose	Coolroe,Aglish	Thatch	
WA750531	Thatched cottage	Lissaniska	Thatch	
WA750532	Scoil Cluain Fiaid Paorac Scoil Naisiunta	Clonea	Not Stated	22802011
WA750533	House	Clonea Power	Not Stated	22802003
WA750534	House	Clonea Power	House	22802004
WA750535	South Mall	Chapel Place ,Lismore	Not Stated	22809109
WA750537	Hill House (Cottage)	West Street, Lismore	House	22809060
WA750539	West St.	Lismore	Not Stated	22809036
WA750540	Lismore Parish Hall	Chapel Place , Lismore	clubhouse	22809115
WA750541	The Deanery	North Mall ,Lismore	Rectory/ glebe/ vicarage/ curate's House	22809087
WA750542	Annestown House	Annestown	House	22814013
WA750550	Church of Saint John the Baptist	Annestown	church	22814002
WA750551	Rock House	Annestown	Not Stated	22814016
WA750552	The Old Forge	Annestown	Not Stated	22814018
WA750553	Ballynageeragh	Dunhill	Not Stated	22815007
WA750554	The Lodge	Ballynagigla	House	22812015
WA750556	Thatch House	Balliinakill	Thatch	22902306
WA750557	Knockmahon School	Ballynasissala	Not Stated	22812012
WA750558	Ballynasissala		farm house	22902509
WA750559	Clonea Bridge	Ballyneal	Bridge	22802007
WA750560	Ballyphilip Bridge	Ballyphilip	Bridge	22815006
WA750562	Faughan Catholic Church	Ballyristeen	church	22902510
WA750563	Bunmahon	Ballyristeen	Not Stated	22902511
WA750564	Carroll's Crossroads	Ballyshonock	post box	22901616
WA750566	Ballyvoyle Railway Tunnel	Ballyvoyle	tunnel	22903207
WA750567	Barnankile		farm house	22902303
WA750568	Saint Bridget's Catholic Church	Boolattin,Kilrossanty	church	22902301
WA750569	Kilrossanty Corn Mill	Boolattin	Mill	22902304
WA750570	Bridgetown	Clonea	Bridge	22802010
WA750571	Bridgetown	Clonea	Bridge	22802012
WA750574	Carrigcastle (Corn) Mill	Carrigcastle	Not Stated	22902404

WA750575	Catholic Church of the Sacred Heart of Jesus	Carrowleigh	church	22900302
WA750576	Castlequarter House	Carrowcashlane	House	22903105
WA750577	Dysart House	Churchtown	country house	22900212
WA750578	Bridge	Clonea Lower	Bridge	22903116
WA750579	Clonkerdin House	Clonkerdin	country house	22903022
WA750581	Oakview	Coolfin	Not Stated	22803071
WA750583	Coolnagour		Not Stated	22903001
WA750584	Coolnamuck Tower	Coolnamuck Demesne	folly	22900307
WA750585	Milford (Millfort) House	Coolroe	Farmyard Complex and Folly	22803007
WA750590	The Square	Coolroe,Portlaw	House	22803031
WA750595	T. Keaver	Coolroe	Residential / Commercial	22803052
WA750596	O'Neill	Coolroe	public house	22803053
WA750597	Coolroe	Portlaw	foot bridge	22803062
WA750598	bridge	Coolroe,Portlaw	Bridge	22803080
WA750599	Corragina Corn Mill	Corragina	Not Stated	22900306
WA750600	Bridge	Cullenagh	Bridge	22901601
WA750601	bridge	Curtiswood	Bridge	22801018
WA750602	bridge	Furraleigh	Bridge	22901504
WA750604	Mahon Bridge	Furraleigh	Bridge	22901506
WA750605	Bridge	Gardenmorris	Bridge	22813012
WA750607	Glen Poer (House)	Glen Upper	country house	22900214
WA750608	Killrossanty Church	Gortnalaght	church	22901401
WA750609	Old Road	Graigueshoneen	forge	22805002
WA750611	D. Kirwan	Graigueshoneen	Residential / Commercial	22805019
WA750612	Kilmacthomas Courthouse	Graigueshoneen	Formerly Courthouse	22805022
WA750613	Main Street	Graigueshoneen	House	22805023
WA750614	Keighery's	Graigueshoneen	public house	22805026
WA750615	Kilmacthomas Woollen Mills	Graigueshoneen	formerly mill	22805046
WA750616	Kilbryan Lower		Thatch	22804001
WA750617	Saint Patrick's Catholic Church	Kilbryan Lower	church	22804002
WA750618	Comeragh Lodge	Kilcommeragh	Not Stated	22901502
WA750619	Rockmount House	Kilcommeragh	country house	22901503
WA750620	bridge	Kilmacthomas	Bridge	22805029

WA750621	Kilmacthomas Railway Viaduct	Kilmacthomas	Bridge	22805032
WA750622	Rossmore	Kilmacthomas	Not Stated	22805042
WA750623	Rossmore Church	Kilmacthomas	church	22805043
WA750624	Kilmacthomas Railway	Kilmacthomas	Not Stated	22805044
WA750628	Labartt's Bridge	Knockaunbrandaun	Bridge	22900603
WA750630	Knockmaon		Not Stated	22903007
WA750631	Lyre east		farm house	22900606
WA750633	Newtown House	Newtown (ed Kilmeaden)	Not Stated	22901603
WA750634	Newtown (E.D. Newtown)		post box	22806004
WA750635	Newtown Farm	Newtown (ed Newtown)	Outbuilding	22806008
WA750636	Parkeennaglogh		House	22806003
WA750637	Parkeennaglogh		Outbuilding	22806006
WA750638	Aughshemus Bridge	Shanakill	Bridge	22902405
WA750640	Shanballyanne		farm house	22900502
WA750641	Our Lady of Mount Carmel	Sleveen	church	22813005
WA750642	Nunnery Lane	Stradbally More	House	22811006
WA750643	Stradbally More		Not Stated	22811008
WA750646	Strancally Castle	Strancally Demesne	Thatch	22903405
WA750648	Stradbally Bridge	Woodhouse	Bridge	22811012
WA750650	Woodstown	Annestown	Lime Kiln	22814019
WA750651	Limekiln	Ballyvoyle	Lime Kiln	22903203
WA750652	Affane Church	Affane Hunter	church	22902922
WA750653	Affane House	Affane	House	22902921
WA750655	Mausoleum	Ardoginna	mausoleum	22904013
WA750656	Ardsallagh		Thatch	22903704
WA750657	Ardsallagh		Thatch	22903705
WA750658	Thatch House	Ardsallagh	Thatch	22903706
WA750659	Ardsallagh		Thatch	22903707
WA750661	Ballinroad	Old Parish	farm house	22903903
WA750662	Ballintlea North		farm house	22903901
WA750663	Ballyea West		farmyard complex	22809146
WA750664	Whitechurch Bridge	Ballygambon Lower	Bridge	22903018
WA750666	Ballyglan		Not Stated	22901820
WA750667	Ballyheeny Bridge	Ballyheeny	Bridge	22903703
WA750668	Whitechurch Church	Ballykennedy	church	22903032

WA750669	Perry's Bridge	Ballykinsella	Bridge	22901701
WA750670	Glenanna Cottage	Ballymacart Upper	Gates/railings/walls	22903907
WA750672	Ballymacmague South		Thatch	22903004
WA750673	Ballynacourty	Ballinclamper	Not Stated	22822004
WA750674	Ballynacourty	Gold Coast	boathouse	22822006
WA750676	Layliard House	Ballynalahassery South	House	22903113
WA750677	Saint James's Catholic Church	Ballynameelagh	church	22903021
WA750678	Paulsworth House	Ballyquin	country house	22903804
WA750679	Foley's Farm	Boherard	farmyard complex	22903601
WA750680	Fountain House	Main Street,Ardmore	House	22827013
WA750681	Main Street	Duffcarrick,Ardmore	House	22827015
WA750682	The Boat House	Duffcarrick,Ardmore	boathouse	22827020
WA750683	Carraigdoun	Tower Hill,Ardmore	House	22827006
WA750684	Ardmore Head Watch Tower	Dysert,Ardmore	watch tower	22904006
WA750685	Watch Tower	Dysert,Ardmore	watch tower	22904010
WA750686	O'Brien	Farnane Lower	House	22902209
WA750687	Farnane Lower		Outbuilding	22902210
WA750688	Mountain Castle Bridge	Farnane Lower	Bridge	22902211
WA750690	Farnane Upper		House	22902206
WA750691	Farnane Upper		House	22902207
WA750692	Mill House	Farnane Upper	Residential / Commercial	22902208
WA750693	Church of Saint Vincent de Paul	Garranbaun	church	22903114
WA750694	Saint Lawrence's Catholic Church	Garrynageragh West	church	22903111
WA750695	Helvick Coastguard Station		coastguard station	22825017
WA750697	Thatch House	Helvick	Thatch	22825011
WA750698	Kilgobnet		Thatch	22903104
WA750699	Barnawee Bridge	Kilminnin North	Bridge	22903108
WA750701	Ballyvoyle Bridge	Knockyoolahan East	Bridge	22903201
WA750702	Saint Mary's Catholic Church	Logleagh	church	22902017
WA750703	Tower Hill	Farrangarret, Ardmore	House	22827011

WA750704	Scoil Na Mumhan	Mwellahorna (Part of)	Not Stated	22824008
WA750705	Thatched House	Pilltown	Thatch	22903701
WA750706	Saint Mary's Catholic Church	Scart	church	22902204
WA750707	Woodbinehill Crossroads	Springfield Lower	Not Stated	22904001
WA750709	Aglish House	Aglish	House	22820006
WA750710	Tallow Road Railway Station	Ahaunboy North	Formerly Railway Station	22902809
WA750711	Ballingowan East		Thatch	22902923
WA750712	Bridge	Ballinlevane East	Bridge	22808011
WA750713	Ballinlevane West		Thatch	22902001
WA750714	Ballinvella National School	Ballinvella	Formerly School	22902912
WA750716	Ballyduff Beg	Ballyduff Beg	House	22903002
WA750717	Ballyduff East	Ballyduff East	House	22901604
WA750718	Ballyduff Bridge	Ballyduff Lower	Bridge	22808002
WA750719	Ballyduff More		Thatch	22903023
WA750720	Glenmore House	Ballygally East	farm house	22902004
WA750721	Head View House	Ballymoodranagh	House	22809145
WA750723	Ballynacourty House	Ballynacourty	country house	22819024
WA750724	Swallow's Nest	Knockaun	Thatch	22903008
WA750725	Cappagh Railway Station	Ballynahemery	railway station	22903013
WA750726	Ballynahemery	Cappagh	post box	22903027
WA750727	Ballynaparka Bridge	Ballynaparka	Bridge	22820001
WA750728	Catholic Church of the Assumption	Ballynaparka	church	22820002
WA750730	Strand Bridge	Ballyrafter	Bridge	22809083
WA750731	Bridge	Ballyrafter Flats	Bridge	22902117
WA750732	Mayfield Lodge	Ballysaggart Beg Glebe	House	22809153
WA750733	Maryville House/Ardagh House	Ballysaggart Beg	Not Stated	22809112
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WA750735	Mayfield House	Ballysaggart Beg	Not Stated	22809151
WA750736	Ballysaggartmore House	Ballysaggart More	Not Stated	22902012
WA750739	Woodview House	Burgess Anchor	House	22809059
WA750740	Camphire Bridge	Camphire	Thatch	22902906

WA750741	Cappoquin Military Barracks	Cappoquin	barracks	22810040
WA750743	Cook Street	Cappoquin	House	22810059
WA750744	Cook Street	Cappoquin	House	22810060
WA750745	Main Street	Cappoquin	House	22810069
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WA750751	Cook Street	Cappoquin	House	22810111
WA750752	The Dairy Cottage	Castlelands	farm house	22809078
WA750753	Greenmount House	Castlelands	Not Stated	22809072
WA750754	part of Lismore Castle estate	Castlelands	Outbuilding	22809073
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				and gateway
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WA750830	Mount Rivers House	Mountrivers	Outbuilding	22902920
WA750831	Saint Patrick's Church	Mountstuart	church	22903501
WA750833	Poulboy Bridge	Poulboy	Bridge	22900202
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WA750836	Barrack Street	Tallow	warehouse	22818050
WA750837	Mill Road	Tallow	Bridge	22818048
WA750840	Clashmore Bridge	Ballyheeny	Bridge	22826002
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WA750842	Main Street	Main Street, Villierstown	House	22819014
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WA750850	Callaghane	Callaghane	Not Stated	22901817
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WA750864	An Seandun	Dunmore	watch tower	22817067
WA750865	Island Road	Dunmore	boathouse	22817070
WA750866	Virginia Cottage	Dunmore	Thatch	22902709
WA750867	Georgestown House	Farranalahesery	country house	22902512
WA750868	Church of the Immaculate Conception	Fennor North	church	22902601
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WA750872	Killoteran Church	Killoteran	church	22901706
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WA750875	Kilmeadan		Bridge	22900802
WA750876	Strand House	Nymphall	Not Stated	22817010
WA750877	Hillview House	Passage East	House	22807009
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WA750901	Thatch House	Kilclogher	Thatch	
WA750902	Christian Coptic Orthodox Church	Saint Anhanasius, Cappoquin	convent/nunnery	22810036
WA750903	Thatch House	Knockdav	Thatch	
WA750904	Sean Moores cottage	Knockaunrast	Thatch	
WA750905	Thatch house	Knockaunarast	Thatch	
WA750907	Thatch House	Mountaincastle South	Thatch	22902213
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WA750910	St Cronans	Coolboa	church	22826015
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WA750919	Thatch house	Tourin	Thatch	
WA750920	Kielys cottage	Curragh	Thatch	
WA750921	Melview Cottage	Upper Curragh	Thatch	
WA750922	Thatch House	Garranaspick	Thatch	
WA750923	Thatch House	Kilmeedy west	Thatch	
WA750926	Brooke Lodge	Halfway House	country house	22901806
WA750928	Woodlands House	Halfway House	country house	22901004
WA750930	Thatch House	Portally	Thatch	
WA750931	Cul Ban	Portally	Thatch	

WA750932	Fosters Cottage	Portally	Thatch	
WA750933	Thatch House	Portally	Thatch	
WA750934	Thatch House	Rath, Kinsalebeg	Thatch	22903806
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WA750941	Centra Shop	Main Street ,Lismore	shop	22809068
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WA750943	Former Garda Barracks	The Square,Stradbally	barracks	22811020
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WA750947	Thatch house	Graige,Aglish	Thatch	
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WA750967	Bellinvella windmill	Bellinvella	wind mill	
WA750968	Thatch house	Quilla	Thatch	

WA750969	Ballinamona house	Ballinamona	country house	22901727
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WA750989	Ice house	Garranaspick	icehouse	
WA750990	Thatch House	Harrow Hill	Thatch	
WA750991	Ballynamuck Mills	Ballynamuck Middle	Mill	
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WA750993	Lismore workhouse	Townspark East	Workhouse	
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WA750997	Rath house	Rath Lower, Lismore	country house	
WA750998	The Seanachai Pub	Pulla	Thatch	
WA750999	Boathouse	Woodhouse Estate	boathouse	22811011
WA751000	Thatch house	Shanaclone	Thatch	
WA751001	Thatch House	Ballynacourty	Thatch	
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WA751003	Iris cottage	Inchindrisala	Thatch	
WA751005	Thatch House	Bally na gall beag	Thatch	22903603
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WA751018	Mount Patrick	Mount Patrick	Villa	22902513
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WA751020	Halfway	Halfway	Outbuilding	22901301
WA751021	Thatch House	Glen lower	Thatch	
WA751022	Limekiln	Eaglehill, B**allinamult**	Lime Kiln	
WA751023	Carrignagower National School	Glengara	school	22902120
WA751024	Thatch House	Ballyea east	Thatch	
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WA751026	Bride Valley Tools	Barrack Street, Tallow	warehouse	22818063
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WA751037	Belle Lake House	Ballyloughmore	country house	
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WA751046	Flowerhill House	Ballyduff	farmyard complex	
WA751047	farmyard complex	Crooke	farmyard complex	
WA751048	farmyard complex	Ross	farmyard complex	
WA751049	Gate Lodge	Templemicheal	gate lodge	
WA751050	Killotteran House	Killotteran	Villa	22900901
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Appendix 10
Architectural Conservation Areas

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 – 2028

Appendix 10

Proposed Architectural Conservation Areas

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Proposed Architectural Conservation Areas

Aglish Architectural Conservation Area (ACA)

Description and Historical background

The village of Aglish, "An Eaglais", the Church, is located on lowlands on the Ballynaparka River which is a tributary of the River Blackwater. It is not laid out as a planned space but instead developed as a village around a "T" shaped Plan. The core of the village was established at the time of the First Edition Os Map in 1841. In recent times, Aglish has expanded on the approach roads to the village.

Summary of special character

The architectural character of Aglish is low key and modest. The historic houses are early 19th century small-scale single and low two storey dwellings. The rubblestone outbuildings located on the Presbytery Road, Aglish Road and Ballynicole Road also add to the informal rural character of the village. The houses along with the rubblestone outbuildings form a component of the vernacular heritage of County Waterford. Historic photographs indicate that the majority of the houses were originally thatched. This is perceptible today by the informal form and low massing, stepped arrangement of the roofs and the construction in locally-sourced materials. There is one thatched house remaining in the village while the Church of the Assumption forms an attractive focal point. On the periphery of the village there are 2 early 19th Century country houses, Aglish House and Ballynaparka House. The low stone walls and grass verges along the stream on the Ballynicole Road form an attractive approach into the village and form part of the public realm. Despite works in the twentieth century the core of the village retains much of its early character. It is considered that the ACA of Aglish of is historic and architectural merit.

Location and Boundary of the ACA

The boundary of the ACA follows that of the streetscape of distinctive character in the Waterford County Development Plan 2011 - 2017

Development Management Standards, based on the assessment of special character of Aglish

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of historic houses buildings within the ACA have a rendered finish whilst the rubblestone outbuildings remain unrendered. These original historic external finishes provide a sense of place to the village and should be retained.
Roofs	The stepped roofscape forms part of the special character of the village. Historic roofs would have been thatched but now these have now been replaced with pitched slate roofs, usually natural slate, while the remaining outbuildings are clad in corrugated iron. Where works are proposed the original elements and roof profiles should be respected, retained/repaired and reused rather than replaced. In this regard the removal of original roof and roofing material such as natural slate, corrugated iron, stone eaves, chimney-stacks, early terracotta or clay pots, cast-iron gutters and down-pipes should be avoided
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of the use of dormer windows on the front elevations of buildings within the ACA and their installation in historic buildings will be discouraged by the Planning Authority.
Rubblestone walls and outbuildings	The historic rubblestone boundary walls evident on the approaches to the village and on some of the outbuildings within the village add to the special character of village. The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Annestown Architectural Conservation Area (ACA)

Description and historical background

Annestown Village is located on a steep hill which slopes down to the River Anne. The picturesque back drop of the Copper Coast forms the setting for the village. The historic core of the village consists of a linear street with an east to west orientation. The settlement is most likely associated with Annestown House.

Summary of special character

The village has a very unique character in that it is totally residential with no shops or public houses. The only public building is the Church of St John the Baptist (1822). The character of the village is low key and modest. The most dominant building is early 19th Century Annestown House and its range of rubblestone outbuildings. This along with the late 18th century Rock House and the Old Forge, form an attractive vista on the approach into the village from the East. The early 19th century small-scale single storey/dormer and low two storey rendered dwellings are picturesque and form an important component of the vernacular heritage. This is identified by the informal form and low massing of buildings, stepped arrangement of the roofs following the topography of the sloping site, and the construction in locally-sourced materials. One thatched house remains within the village. Features such as the limekiln, the freestanding 1880 cast iron water pump, 1940s post box, the Celtic style strap work design on the 1930s manhole cover, the high rubblestone walls along Annestown Road and lower rubblestone walls on the approaches into the village all contribute to the architectural heritage of the well-preserved picturesque character of the village. The panoramic views towards the sea and vistas on the approaches to the village greatly enhance the character of the ACA. It is considered that the ACA of Annestown of is historic and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to the east to include the views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards, based on the assessment of special character of Annestown

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Annestown have a rendered finish whilst the rubblestone outbuildings remain unrendered. These original historic external finishes should be retained.
Roofs	The steeped roofscape of Annestown are part of its special character. Historic roofs were mainly pitched natural slate roofs.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, thatch, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic

	sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is tradition of historic single dormer windows on the front elevations of buildings within Annestown ACA and their removal and alteration is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design of the historic half dormers.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the village and add to the special character of Annestown. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or the alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Ardmore Architectural Conservation Area (ACA)

Description and Historical background

The village of Ardmore (Aird Mhor) a great promontory or eminence is situated on the shore of a bay open to the east and protected on the south by Ardmore Head. Ardmore is considered to be one of the oldest ecclesiastical centres in Ireland, having been founded by St. Declan in 416 AD. This predates St Patrick's arrival in Ireland and highlights the importance of Ardmore in the history of Christianity in Ireland. Between 1170 and 1210 Ardmore became a diocesan centre after which time the diocese was united with Lismore and the church became parochial.

In the 19th century the sheltered beach made Ardmore an attractive tourist destination and hence the expansion of the fishing village with the construction of houses, including large detached houses, on the roads winding uphill from the Main street. Ardmore continues to thrive as a tourist destination today.

Summary of special character

The historic core of the village of Ardmore has a very distinctive character enhanced by its coastal setting. The village has 3 distinct phases of development,

- the ecclesiastical complexes at the Cathedral and St Declans
- the fishing village
- 19th century expansion

The most dominant feature is the skyline is the iconic 12th century Round Tower which is located on the hill overlooking the village.The Round Tower rises to a height of 98 feet (30m). The large monastic enclosure at this site also encompasses St. Declan's oratory, the graveyard and the Cathedral. St. Declan's Holy Well is located along the Cliff Walk overlooking Ardmore Bay. The ecclesiastical monuments at the Round Tower and at St Declans Well give Ardmore a unique archaeological and architectural character. Ardmore is identified as a National Monument due to its rich archaeological heritage.

Along the Main Street are modest single and two storeys rendered terraced houses that date mainly from the early 19th century. Many of the single storey houses would have been originally thatch as evidenced by the long low massing of the buildings. Two examples of urban thatch houses remain in the village. These are 2 of a cluster of 8 thatched houses in within 8 km of the village. From the core of the village and along Coffey Lane and Cliff Road there are early 19th century single storey fisherman's cottages, which despite some renovations have mainly retained their character. Some of the cottages on Cliff have their gardens on the other side of the road on the cliff. The undulating roof lines and modest vernacular detailing contribute to the character of the village.

On the hills around Ardmore, there are some fines examples of 19th century detached private residences with extensive grounds and mature planting. Along Dysart and Rocky Road there are dwelling such as Melrose House, a Tudor Revival style House and Dhucarraig. Public buildings include St Declan's Church which was constructed immediately prior to Catholic Emancipation in 1829 and St Pauls Church which was built in 1838.

Due to its strategic coastal position, several maritime buildings were constructed for defensive purposes. The watchtower is a Gothic style tower built around 1800. Its history is associated with the Napoleonic defense constructions along the coastline of Ireland in the late 18th and early 19th centuries. Immediately adjacent is the Lookout post. This single storey, single room was constructed by the Irish Government in 1940 during the "the Emergency". The Coastguard Station was built in 1869. This is a terraced two and three storey building with a 3 storey square tower and is now in residential use.

The public realm consists of the fine sand beach and the area adjacent and the Cliff walk. The mature trees on the roads leading to the Round Tower, on the Rocky Road and within the various gardens of some of the larger houses also enhance the streetscape. As in many other towns and villages the rubblestone walls also add to the character of the village.

The views and vistas are on the approach roads into the village towards and from the Round Tower area/Cliff road/ Coastguard / Cliff walk

Ardmore has a special historic interest with retains a very representative collection of buildings spanning the centuries. From its beginnings as an early Christian centre to a fishing village to a tourist destination, the distinctive built heritage is a reminder of the past generations who have lived and worked here. It is considered that the ACA of Ardmore is of historic, social, cultural, archaeological and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to include the Cliff Walk and the setting of the Cathedral and Round Tower.

Development Management Standards, based on the assessment of special character of Ardmore

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of historic buildings within the Architectural Conservation Area of Ardmore have a rendered finish. These original historic external finishes should be retained.
Roofs	The stepped roofscape of Ardmore is part of its special character. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, thatch, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	Many doorways of the medium to large houses have fanlight detailing. The traditional window type for smaller houses is timber single sliding sash and for the medium to larger house it is multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per Dept of Housing, Local Government and Heritage advice series. In the event of replacement of uPVC windows owners will be encouraged to consider a more appropriate window material and glazing pattern if they intend to change their windows in the future. There is no tradition of historic dormer windows on the front elevations of buildings within Ardmore ACA and their installation in historic houses will not be deemed appropriate by the local authority.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the village and bounding historic properties and these add to the special character of Ardmore. Their removal would be detrimental to the character and therefore is discouraged. Planning

	permission will be required for their removal and /or alteration of same.
Height	The predominant height of existing buildings shall be respected and any proposals should harmonise with the existing streetscape in particular on Main street, Rocky Road Cliff Road, New Line
Developments within curtilage	Subdivision of the extensive gardens may negatively visually impact on the historic house and its setting. If new development is possible within these sites, it should respect the predominance of the main building on the site and the pattern of the historic urban grain.
Vistas and settings	The vistas and settings of the areas around the Cathedral and Round Tower, St Declans, and the Cliff Walk shall be maintained
Planting	To seek the retention of mature trees/significant planting (those in good condition)
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Ballyduff West

Description and Historical background

The village of Ballyduff owes its existence to its location as a fording point on the River Blackwater. Ballyduff is located on the northern banks of the Blackwater bounded by hills to the north. The layout of the village is "T" shaped with the Towns park road turning south over the Blackwater at Ballyduff Bridge

Summary of special character

The historic core of the village comprises early 19th century single and two storey rendered houses, some commercial sheds such as the Old Creamery and some stone outbuildings. Houses with half dormer windows, some with ornate rendered dressings are also a feature of Ballyduff. Some houses may have been thatched houses previously as the dormer style thatch can be found at nearby Balinlevane west and in North Cork. The vernacular architecture of the buildings is evident with their informal form and massing, stepped arrangement of the roofs and the construction in locally-sourced materials. Shopfronts such as An Sibin and J. Harris retain their rendered shopfronts. The River Action restaurant has a timber shopfront with classical proportioning. The character of Ballyduff is further enhanced by its riverside setting and mature trees along the approach roads into the village. For a settlement of its size it has very impressive public architecture. St Michaels Church is a Gothic Revival style church building built c.1850 and it is of National importance. The faux Tudor style Carnegie Library 1910, is one of 5 Carnegie Libraries in the County. The Scottish Baronial style constabulary Barracks (1869) complete with turrets and machicolations was a response to the growing political and agrarian unrest. It is located on an elevated site above the River. Ballyduff Bridge is one the earliest cast iron trestle

bridges in Ireland 1887. The lattice parapets are a distinctive characteristic and the Bridge coupled with the nearby Barracks and vernacular farm complex provide the village a strong architectural identity. It is considered that the ACA of Ballyduff of is historic and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended south to the bridge to the Barracks and the vernacular complex.

Development Management Standards, based on the assessment of special character of the village

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Ballyduff have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick of has a robust render details, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features.
Roofs	The roofscape of Ballyduff is part of its special character. Historic roofs may have been originally thatched but are now pitched slate roofs; usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes. Is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is a tradition of historic dormer windows on the front elevations of buildings within Ballyduff ACA and their removal or alteration is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design

	of the historic half dormers
Shopfront	Original/early shopfronts should be retained or repaired according to best practice as per Dept of AHG advice series
Carriage arch	Carriage arch openings are a feature of the streetscape in Ballyduff. These openings should be retained with planning permission required for alterations.
Rubblestone outbuildings and Boundary walls	Historic rubblestone boundary walls and outbuildings are evident on the approaches into the village and within the village and add to the special character of Ballyduff. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.The Council will take note of existing shopfronts, cut stone steps when doing works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc.

Copper Coast (Bunmahon/ Knockmahon) Architectural Conservation Area (ACA)

Description and historical background

The area now known as the Copper Coast has a history of copper mining from prehistoric times. Features of the 19th century mining activity are visible in the townlands around Knockmahon and Bunmahon. While there was an attempt at commercial mining in the area in the mid 18th century, mining became important from 1824 when four mining companies were set up in the area. By 1840 mining had become a profitable business. In 1843 alone, 4000 tonnes of ore were extracted. In 1875 the mines stopped production due to poor copper prices and cheaper foreign ores .The workers lived in very poor conditions, such as two families per two roomed cabin. Most of those buildings were demolished when the mines closed. Osborne Terrace where the management lived is still in situ.

Summary of special character

The special character of the area relates to its 19th century industrial heritage, which is of technical, historical, and social interest. This does not only include the obvious industrial architecture such as the Engine house at Tankardstown, but features such as the Stage Cove with its mine shafts visible on the cliff top and cliff face, the slipway, which was used in transporting shipping copper ore, and the remains of a copper yard with a cobbled floor. Other elements in the area are mine shafts, mine heads and rubblestone walls which protected yards. The industrial heritage also includes elements of the social, economic and educational development of the mining community of Bunmahon, and Knockmahon, which during the mid 19th century had a population of 2000 people.

The most dominant building is Knockmahon Church, c.1820 now converted into use as a visitor centre, which is a reminder of the once-prosperous Church of Ireland community in the locality. It remains an important landmark in the area, the First Fruits tower punctuating the skyline. The adjacent Knockmahon National School established c.1845 of particular significance as one of the earliest-surviving educational facilities in the locality, is now a residence. St Mary's Catholic Church (1842) was originally built as a Temperance Hall for the miners. The character of the historic residential properties is low key and modest. The two storey terraced houses at Osborne Terrace, built of simple materials in modest style, are an important component of the landscape. Middle sized houses include Bunmahon Glebe House and The Mine managers House. Within the village of Bunmahon there is a thatch house but there are several other thatch houses nearby in the townlands of Templevrick and Kilduane. Sections of rubble stone walls, associated with the mining heritage are evident at random sections throughout the ACA. Some of these are the remnants of yards or areas where the miner's cabins were located.

Features of the built heritage and the rubblestone walls on the approach into the area all contribute to the architectural heritage of the picturesque character of the area. The panoramic views towards the sea and vistas along the Copper Coast greatly enhance the character of the ACA. It is considered that the ACA of Bunmahon of is historic, social, cultural, technical, archaeological and architectural merit.

Location and Boundary of ACA

The boundaries of the Architectural Conservation area extend from the entrance to the village in Bunmahon, in the townland of Templevrick, and include Knockmahon and sections of the townlands of Ballynasisla, Ballynagigla, Kilduane, Knockmahon and Tankardstown

Development Management Standards, based on the assessment of special character of the village

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Industrial heritage	It will be Council policy to seek retention of remnants of the historic copper mining heritage, which includes mine shafts, remnants of mine heads, stores, tracks, engine houses and residential buildings when considering any proposed development in the area
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the area and add to the special character. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council, services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Cappoquin

Description and Historical background

Cappoquin (Ceapach Choinn) is located on the bend of the River Backwater as it turns south towards the sea at Youghal Bay. Sheltered by a hill to the north, the character of the area is defined by its natural setting of the river and mature trees. From Cappoquin towards the sea the Blackwater is deeper and therefore easier for lager boats to navigate. The rich agriculture hinterland and woodlands provided goods for trade and export. The growth this trade contributed to the wealth and development of Cappoquin. It is reputed that a Castle was built by the Fitzgerald family in the 15th century but its whereabouts now is unknown. Richard Boyle built a wooden bridge at Cappoquin in 1630 and developed trade routes along the Blackwater. The centre of commerce in Cappoquin was located where the present building known as the Market house is located. The town was also had important military barracks the walls of which still remain. In the 18th and 19th century the town developed further and the number of shops reflects the period of expansion and in trade and retail. The presence of the Keane family at Cappoquin House and their investment in the town further influenced development.

Summary of special character

The Main Street runs east west and in appearance is predominately early 19th century two and three storey buildings, many which had a commercial use on the ground floor as evidenced by the very fine shop fronts . Towards Barrack Street, the walls of what was the military barracks from 1725 remain. The street tapers to traditional terraced houses and single-storey workers, built of simple materials in modest style, which are an important component of urban streetscapes in Ireland. The Main Street is intersected by Cook Street and Castle Street. At this cross roads is the Market House with a small public square to the front. To the south is Cook Street which includes of a terrace of two storey redbrick houses c.1875. This leads to Mill Street which is early 19th century mainly terraced two and three storey houses. Located on this Street is the pre emancipation Catholic Church of St Marys and adjacent is St Anne's Church of Ireland Church .The houses on the north site of the Main Street have large curitlages to the rear there are also some carriage arches still extant.

The buildings are mainly rendered with the exception of terrace of brick house on Cook Street. Robust plaster detailing around the window and door opes provide a coherent and distinctive streetscape. The roofs are mainly natural slate with the three storey houses having projecting stone eaves. The windows were originally either multipaned or single sliding sash .Many good examples of original windows still exist. Traditional terraced houses and workers houses such as those in Cook Street and Barrack and built of simple materials in modest style, are an important component of urban streetscape. The use of materials such as stone, slate, timber windows and doors, and decorative render work are often vernacular in nature and reflect indigenous craftsmanship and resources. They often reflect the simplicity and modest scale used in the

execution of finishes to buildings. Their importance should not be underestimated they contribute to the makeup and aesthetic appearance of the ACA.

Cappoquin has the some of the finest traditional timber and molded render shop fronts in the County. This gives the historic core a predominantly commercial character. Shops such as Olden's, Kenny's have examples of raised lettering in plaster molding. There are also examples of timber shopfronts with Doric pillars and timber shutters which incorporate pilasters, moulded fascia supported by ornamental consoles, many with a shamrock motif, recalling in a vernacular manner Classical architecture.

On the hill overlooking the town is the impressively sited Cappoquin House and Demense. To the west is Avonmore Bridge a six-arch limestone ashlar road bridge over Blackwater River, built 1850. The Red Bridge opened in 1878 which is the remains of a cast iron bridge which was part of the Fishguard and Rosslare Railways and Harbours Company. Railway station house and the goods station still survive. Historic rubblestone boundary walls are evident on the approach road into the town some areas of the town and add to the special character of Cappoquin. It is considered that the ACA of Cappoquin of is historic, social and architectural merit. The built heritage of the town is a reminder the prosperity of the area in the 19th century and gives Cappoquin its unique character.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to include the views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards, based on the assessment of special character for Cappoquin

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Cappoquin have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage

Roofs	The roofscape of Cappoquin is part of its special character in particular the projecting stone eaves. Historic roofs were mainly pitched slate roofs; usually using Bangor Blue slates some which are very large and fixed in diminishing courses .Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of historic dormer windows on the front elevations of buildings within Cappoquin ACA and their installation will not be deemed appropriate by the local authority.
Shopfront	The best examples and variety of traditional timber and moulded render shopfronts in Co Waterford are found in Cappoquin .Original/early shopfronts should be retained or repaired according to best practice as per Dept of HLG and H advice series
Carriage arches	Carriage arch openings are a feature of the streetscape in Cappoquin These openings should be retained with planning permission shall be required for alterations.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Cappoquin. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area. The Council will take note of existing shopfronts, cut stone steps when carrying out works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc

Cheekpoint

Description and Historical background

Cheekpoint (*Pointe Na Síge*) is a village set on the confluence of the River Suir and the River Barrow. Lying beneath the 150 meter high Minaun Hill, the village has panoramic views of Waterford Habours. Prior to the construction of the pier at Dunmore East, Cheekpoint was a thriving village, being the station at which the mail packets from England landed. In addition there were cotton, rope, and hosiery factories which disappeared when the mail packet station was transferred to Dunmore East on July 1, 1818. Cheekpoint was then only used as a fishery harbour in the 19th and 20th centuries and became famous for a certain type of small fishing craft called the Cheekpoint Prong which were used for long lining and salmon fishing.

Summary of special character

The core of the ACA is around the quays and waterfront area. The historic fabric is a reminder of the thriving harbour which once existed there. The late 18th early 19th century quay and piers, even though there are modern interventions, are of particular significance for its role in the maritime activities that traditionally supported the economy of the village.

The row of 19th century single storey terraced cottages and the low two storey dwelling on either side of the approach road to the pier adds a picturesque quality to the village as they slope down to the River.Other structures of architectural interest include the mid 19th century rubblestone refuge, the rubblestone quays, the limekiln, the rubblestone boathouses and the Victorian post box all contribute to the architectural heritage and special character of the village. The Mount is a picturesque folly c. 1750 presenting an attractive feature in the townscape of Cheekpoint. Positioned overlooking the River Suir, it is possible that the folly was also originally intended as a form of navigational beacon

Outside the ACA is Daisybank House 1765 which operated as a hotel but may have been possibly intended to be a constabulary barrack due its proximity to the River and possible illegal activities such as smuggling. It is considered that the ACA of Cheekpoint of is historic, social and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character the Waterford County Development Plan 2011 – 2017 have been extended to include various features along the shore such as The Rookery, the quays, the limekiln and the Mount.

Development Management Standards, based on the assessment of special character for Cheekpoint.

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Rubblestone walls, buildings and features	Historic rubblestone boundary walls and features such as the refuge and add to the special character of Cheekpoint. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Quay walls and piers	Any intervention to the quay walls, piers and seawalls shall retain the historic rubblestone construction elements

Clashmore

Description and Historical background

Clashmore (Clais Mor) - The great hollow or trench is located on the river Grenagh which is a tributary of the River Blackwater which lies 2 km to the east. St. Mochua founded a monastic settlement here in the 7th century, and the abbey later became the property of Sir Walter Raleigh in 1602. Clashmore Distillery was established in 1825 by Lawrence Dennehy and Robert Power Ronayne, who were both well known businessmen of the area. At one stage the distillery produced up to 20,000 gallons of whiskey annually, from malt and raw grain. The distillery ceased operating around 1840 and was used later as part of the large Flour Mill adjacent to it, which in turn ceased to operate c. 1897.The plan of the village is linear and the village continues up a gentle hill along the Clashmore Road where the road divides at the bridge. At this location there is terrace of early 19th century houses and the Catholic Church and a 19th century parish hall.

Summary of special character

The historic core of Clashmore is a neat single street with some new housing on the approaches. The buildings on the Main Street are mainly modest rendered two/three storey early 19th century houses. The predominant window type is timber sliding sash in one over one or two over two designs. The distillery complex is an important part of the architectural heritage of Clashmore, representing one of the final reminders of the industrialization of the village in the nineteenth century. The Distillery chimney survives as a landmark in the area, rising above the surrounding landscape and is distinguished by its unusual position over the Greagagh River, supported by a picturesque rubble stone footbridge. The construction of the arches and span, which have retained their original profile, identifies the civil engineering heritage significance of the structure. The bridge is distinguished by its original intended role, providing access to a chimney from the distillery (later a flour mill) on site.

Clashmore has two churches; the First Fruits Church of Ireland built 1813 is located at the top of the village and now a heritage centre. The church of St Cronan built in 1827 prior to the Catholic Emancipation has very fine timber paneled galleries and an intricate timber roof construction of technical significance. The adjacent Neo Tudor style National School (1887) is now for community activities.

The appealing small-scale houses of the village are of balanced proportions that retain most of the original form and early fabric, which contributes to the character of the streetscape. Shopfronts such as the rendered dressings on the Old Still, Kennedy's , The Decies and Beresford's are of particular interest incorporating traditional raised lettering, which is of artistic design merit, and which attests to high quality craftsmanship . Some other rendered shopfronts still remain but they are now in residential use. There is one thatch house in the village and on the outskirts of the village are Georgian style Clashmore Glebe House (1820) and the forty five bay farmyard complex built in 1830 which was associated with Clashmore House which is no longer extant.
The area of public realm is located along the river back with St Mocuda walk and Holy Well. This is complemented by mature trees and hedging. The two 2 cast iron pumps c.1910, iron vent pipe lower associated with the earlier industrialization, the Rubblestone Bridge, the rubble stone quay walls and walls on the approach into the village all contribute to architectural heritage and character of the village. Although the village has expanded over time the centre still retains it architectural, archaeological and historical character

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to the east and south to include the views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards, based on the assessment of special character for Clashmore

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of historic buildings within the Architectural Conservation Area of Clashmore have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. The council would not be favourably disposed to the installation of external cladding which can obscure moulded plasterwork features such as shop signage
Roofs	The stepped roofscape of Clashmore is part of its special character. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-

	stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of historic dormer windows on the front elevations of buildings within Clashmore ACA and their installation in historic buildings will not be deemed appropriate by the local authority
Shopfront	Original/early shopfronts should be retained or repaired according to best practice as per Dept of HLG and H advice series
Carriage arch	Carriage arch openings are a feature of the streetscape in Clashmore These openings should be retained with planning permission required for alterations.
Boundary walls Rubblestone quay walls	Historic rubblestone boundary walls are evident on the approaches into the town and around the boundary of the old Distillery and also along the riverbank. These walls add to the special character of Clashmore. Their removal/alteration would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.

Clonea Power

Description and Historical background

The village of Clonea (Cluain Fhia) is located in a valley along the Clodaigh River. The historic core of the village of Clonea is centred on Clonea Bridge. The original settlement here would be associated with Clonea Castle to the south. Clonea was not laid out as a planned space but instead developed and evolved as a village on a fording point of the river. The present core of the village is evident on the First Edition OS 6 inch maps 1841

Summary of special character

Prominently set in the centre of the village of Clonea, the Church of Saints Quan and Broghan (1860) form a landmark site in the locality. This building which is of National importance was designed by James Joseph McCarthy is a fine and monumental composition in the Gothic Revival style. The construction of the church attests to high quality stone masonry, particularly in the fine detailing throughout and to the window openings. The church retains its original fabric and fittings, including stained glass windows of artistic merit, produced by the Harry Clarke

studios. The gateway is of an ornate design and adds diversity of the street front. Scoil Cluain Fiaid Paorac Scoil Náisiúnta (1870) was constructed a muted Gothic style, which complements the appearance of the nearby Church.

There are three rubblestone bridges in the village. Clonea Bridge is the earliest dating to c. 1780. It is an attractive structure that retains its original form and character. The traditional construction in rubble stone serves to form a picturesque feature in the centre of the village, while the construction of the arches that have retained their original shape is of technical or engineering significance

The previously thatched house adjacent to the Church and attendant outbuildings forms an important vernacular farm complex in the centre of Clonea. The clusters of two storey buildings at the bridge which are late 18th century retain some of their original windows. Also of note is Clancy's Pub with its rendered shopfront dating to late 19th century. The mature trees in the area around Clonea Bridge add to the Sylvan ambience of the village. Although modest in scale all these elements contribute to the historic character of the locality. It is considered that the ACA of Clonea Power is of historic and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 define the ACA

Development Management Standards, based on the assessment of special character for Clonea

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Clonea. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Vernacular buildings	Vernacular farm complex to be retained.
New build/infill	In the cases of replacement buildings in the historic core new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.

Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Dunmore East

Description and Historical background

Dunmore East (Dun Mor) the Great Fort, is located on the hill overlooking on the west side of Waterford Harbour. In 1640, Lord Power of Curraghmore, who owned a large amount of property in the area, built a castle on the cliff overlooking Dunmore Strand and today just one tower remains. In Smith's history of Waterford, the village was mentioned as being a fishing port about the year 1745. The fishermen's homes were situated in the Lower Village near the Strand Inn and boats were launched from the slip at Dunmore Strand before the harbour was built. There is mention of a fleet of fifty fishing boats working from Dunmore East in 1776. In 1814 Alexander Nomo the Scottish engineer commenced work on the new harbour at Dunmore to accommodate the packet station for ships which carried the Royal Mail between England and Ireland which was transferred from Cheekpoint to Dunmore East in 1818. The sheltered Harbour meant that Dunmore East was to gradually become an important fishing port.

In 1824 Dunmore East was described as "formally a place of resort for fishermen, but now a delightful and fashionable watering place" .This village developed as a resort in the 19th century with the construction of substantial holiday homes in the form of purpose built thatch houses for rent. There was also building of more extensive properties such as of large holiday villas such as Villa Marina (The Haven Hotel) designed by John Skipton Mulvaney for the Malcomsons of Portlaw

The historic core of the village is linear travelling uphill from Lower Village at Dunmore Strand past the Park and the terraces of thatch houses along Dock Road to the Harbour with side roads leading down Island road and Post office Lane.

Summary of special character

The historic core of Dunmore East is linear along the hill overlooking the bay and mostly comprises of residential buildings which utilise the views over sea. Dunmore east combines the holiday ambience with the utilitarian aspect of a working harbour. One of the most notable architectural and photogenic features of Dunmore East is the terraces of thatch houses. The early 19th century thatch houses are located along Dock Road and there are some single thatch houses in the lower village area. The thatch houses form an integral component of the vernacular heritage of Dunmore East. In the early 19th century terraces of houses such as Wellington Terrace and Post Office Lane were constructed. These are well

composed modest scale two story rendered houses with slate roof and sliding sash windows that follow the incline of a hill. The houses on Glenville terrace were small-scale dwellings built for/by fishermen operating from the nearby strand and harbour. Later 19th century terraced houses with half dormer attic windows include Queens Terrace and Curraghmore Terrace which was sponsored by Lord Waterford as accommodation for his servants during visits to the locality

The terrace of houses across from St Andrews c.1835 are modest-scale two storey buildings that are of particular importance for its original intended role as part of a Royal Irish Constabulary barracks complex, representing one of the earliest purpose-built civic buildings in the locality, and which attests to the measures put in place to curtail illegal smuggling activities in Dunmore East in the early nineteenth century.

Villa Marina (1864) The Haven Hotel is an elegantly-composed, substantial villa-style house built for David Malcomson of Portlaw to designs prepared by John Skipton Mulvany. There are some fine examples of 19th century detached private residences with extensive grounds and mature planting such as Woodcliff House and Poolnalinnte. Harbour House (1820) was originally reputed to have been built as a seaside villa by the Marquis of Waterford but later became a hotel to accommodate travellers. It now houses apartments but retains its character as a landmark building occupying a prominent site near the pier. These larger houses represent an important element of the development of Dunmore East as a seaside village in the mid to late nineteenth century.

The pier and lighthouse are an integral part of the architectural and maritime heritage of Dunmore East. Both structures were built to designs prepared by Alexander Nimmo who designed a number of maritime structures along the Irish coast in the early 19th century. The pier was constructed in 1814 using the local old red sandstone conglomerate stone. Originally developed as a steam packet port it later became an important fishing port. The elegant lighthouse which takes the distinctive form of a Doric column was built in 1824 forms a prominent landmark in the harbour area

Other structures associated with the maritime history include the 1940s Pilot station overlooking the Harbour and the adjacent Lookout (1940) intended use as a watch tower during 'The Emergency', the 1820s Boathouse in the harbour and the coastguard station, c.1900 and coastguard houses on Dock Road

Public buildings in Dunmore include St Andrews which is a Board of First Fruits Church of Ireland church which was built 1817. The church forms a picturesque and prominent landmark in the townscape of Dunmore East, positioned on an elevated site at the junction of three roads, and is identified in the skyline by the elegant tower and spire.The Fishermans Hall c 1850 is well-composed meeting hall, sponsored by the Malcomson family, which is of particular significance in the locality as evidence of Quaker philanthropy, and for its associations with the maritime industry that has traditionally supported much of the economy of Dunmore East. It is now in community use.

Public realm includes the Beach and cove areas. Park na Bo Parc na mBo (1875) is of considerable interest as evidence of the development of Dunmore East as a seaside village in the mid to late nineteenth century. Of landscape design significance, the site juxtaposes features of natural and planned interest. The grounds incorporate important specimen planting, while the site is also a valuable Kittiwake colony. As in many other towns and villages the rubblestone walls also add to the character of the village but in the case of Dunmore East the use of the distinctive local conglomerate stone gives a distinctive character to the area. The mature trees in private dwellings and the woods add to the holiday ambiance of the village. It is considered that the ACA of Dunmore East is of historic, technical, social and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to extended to include Queens Terrace and the Harbour

Development Management Standards based on the assessment of special character for Dunmore East

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Dunmore East have a rendered finish. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall.
Roofs	The roofscape of Dunmore East is part of its special character in particular the thatch houses. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate. On the terraced houses the stepped arrangement should be retained. Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, thatch, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent

	with the character of the ACA. There is a tradition of historic half dormer windows on the front elevations of terraced buildings such as Queens Terrace and Curraghmore Terrace within Dunmore East ACA and their removal or alteration is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design of the historic half dormers.
New build/infill	In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape. Established views to and from local landmarks should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. • The elevational treatment of the new development should be well-proportioned and built having respect to its context. • Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Boundary walls	Historic rubblestone boundary walls of conglomerate stone are evident in the village and add to the special character of Dunmore East. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Kilmacthomas

Description and Historical background

Kilmacthomas (Coill Mhic Thomáisín) is located on a steep hill at the base of the Comeragh Mountains. There was originally a castle belonging to the Poer family in the 15th century located in the area. Kilmacthomas developed since the 18th century due to the presence of the 3 mills which were powered by the River Mahon which bisects the town. The historic core of the town as it is today was extant in the First Edition OS Maps of 1841.

The skyline of Kilmacthomas is dominated by the Mahon Viaduct Bridge and the Union Workhouse which are visual reminders of the social, industrial and cultural history of Kilmacthomas The street pattern of Kilmacthomas is linear as it leads down the main street over the bridge and under the Railway viaduct where road bifurcates.

Summary of special character

The special character of Kilmacthomas is very evident in the industrial heritage. This heritage is due to two factors, the River Mahon which powered the mills and the railway which transported goods.

The Mahon Viaduct Bridge (1878) is an elegantly-composed 8 arch rubblestone railway viaduct, which forms a monument landmark dominating the skyline in the centre of Kilmacthomas. It is an excellent example of the high level of expertise in technical work engineering and stonemasonry practiced in railway construction. This viaduct, along with Kilmacthomas Railway Viaduct (1878) and the modest-scale railway station is a reminder of the development of the Great Southern and Western Railway line by the Waterford, Dungarvan, and Lismore Railway Company in the late nineteenth century, which promoted the economy of smaller urban areas, such as Kilmacthomas. All now form part of the Greenway

Three rubblestone mills still remain. The old Flour and Corn Mil has been converted into apartments and Flahavans Mills, which has been extended lies outside the town at Kilnagrange. The Kilmacthomas woollen mill is an extensive rubblestone building of a number of distinct periods of construction from the early 19thcentury onwards and with its location by the River, forms an imposing landmark in the townscape, and contributes to the character of the locality.

This weir is of importance as a reminder of the technical requirements necessitated by the presence of a water mill in the locality. Although now no longer serving its original use, the weir continues to have a picturesque impact in the centre of Kilmacthomas. These structures are particular importance as reminders of the industrial legacy of Kilmacthomas

The Union Workhouse (1850) is highly visible from the N25. This complex includes blocks of two storey and three storey rubblestone blocks in a symmetrical plan. It is similar in design to other workhouses around the country that were designed by George Wilkinson. The Workhouse is of significant architectural interest as many of the original building features still remain but it is also of cultural historic and social interest and a poignant reminder of the fate of Irelands post famine poor.

The historic core of the town consists of a busy compact street of 19th century two storeys rendered terraced houses and shops. Comeragh veterinary and Kirwan's have historic molded rendered shopfronts. There are also other examples of such shopfronts on the main street which are now residential but the historic quality of the composition still remains. Keighery's still retains the historic timber shopfront .St Anne's Terrace are Local authority houses 1930s and of particular importance as a reminder of the emphasis placed on social houses following the establishment of the Independent State. The houses form an attractive feature on uniform appearance in the streetscape leading into the centre of Kilmacthomas.Some larger buildings in the vicinity include the Gothic-style Board of First Fruits Church of Ireland church, built 1831, the Ex Convent of Mercy c.1890 which is constructed in a pared-down Gothic style and has been converted into apartments and Rossmore House.

The present library was originally a small-scale courthouse (1880) and is of primary significance as one of the earliest-surviving, purpose-built civic facilities in Kilmacthomas. The pill box at the railway viaduct at the Railway Viaduct is a reminder of the structures of civil defence installed during 'The Emergency' and forms a picturesque and unassuming feature in the streetscape. Other features of the vernacular heritage are the rubblestone forge 1820 on the Old Road, the adjacent cast iron water pump (1860) and the rubblestone walls on the approaches to the town, forming parapets along the main street near the bridge and railway embankments. All these structures form attractive features of the streetscape and contribute to the character of the town

The back drop of the Comeragh Mountains provides a panoramic setting for Kilmacthomas most prominent views include

- Views towards Kilmacthomas Viaduct form N25
- Views towards the Union Workhouse from M25
- Views from the old railway line at Kilmacthomas Railway Station and along the Viaduct
- The setting of the mills by the river.

Public realm includes the Greenway and the park beneath the Viaduct. It is considered that the ACA of Kilmacthomas is of cultural, historic, social, technical and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to the south and north workhouse, railway line and the park and views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards, based on the assessment of special character for Kilmacthomas

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Kilmacthomas have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. The council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.

Roofs	The steeped roofscapes of Kilmacthomas is part of its special character. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of historic dormer windows on the front elevations of buildings within Kilmacthomas ACA and their installation in an historic building will not be deemed appropriate by the local authority.
Shopfront	Original/early shopfronts should be retained or repaired according to best practice as per Dept of AHG advice series.
Carriage archways	Carriage arch openings are a feature of the streetscape in Kilmacthomas. These openings should be retained with planning permission required for alterations.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Kilmacthomas. Their removal/alteration would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
New build/infill	In the cases of replacement buildings in the historic core, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape. Established views to and from local landmarks should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. □ The elevational treatment of the new development should be well-proportioned and built having respect to its context. □ Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Vista	It is Council policy to protect and enhance the character and setting of the Railway and elements of the industrial heritage including millraces.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within

	this Architectural Conservation Area. The Council will take note of existing shopfronts, cut stone steps when doing works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc

Lismore

Description and Historical background

Lismore is located on high ground overlooking the floodplain of the River Blackwater. St Carthage founded a monastery here in 636 A.D. which flourished in the Early Christian period. A market was in existence from the late 12th century and there were references to houses at that time. The initial settlement was probably around the Cathedral and the area now known as Main Street. During the Desmond rebellion the Cathedral and castle were burned. In 1590 Lismore was granted to Sir Walter Raleigh and in 1604 it passed to Sir Richard Boyle. By 1790s the Duke of Devonshire embarked on a programme of improvement. The street network emanates from the Main street Estate Maps by Scale (1774) indicate a layout similar to the present day.

Summary of special character

Lismore town has a rich and varied architectural heritage which includes some fine civic buildings, some designed by pre eminent Irish architects, and sites of archaeological, ecclesiastical and historical interest.

Lismore Castle, overlooking the River Blackwater, with its battlemented towers and turrets, forms a dominant landmark and dates from medieval times. Its walled gardens are one of the oldest-surviving defended gardens in Ireland and date from the 1620s. The Castle is considered of National importance along with Lismore Cathedral, which dates from the monastic foundation associated with St Saint Carthages (Mochuda) in 635A.D. The Cathedral features many phases of work, with contributions from architects such William Robinson, Sir Richard Morrison and George and James Pain.

There are a variety of building types in the town from the Classical-style Courthouse (now also the Heritage Centre), to the Lombardo Romanesque-style of St Carthages Catholic Church, the faux Tudor Style railway station and Arts and Crafts style buildings such as the Red House Inn. The vernacular built heritage of the town can be found in the workers cottages and 19th century shop fronts, to the elegant town houses of South Mall. Some architectural features such as gabled dormer attic windows, decorative bargeboards, horizontal sash windows, gabled box oriel windows and the timber framed detailing are characteristic to the area. The use of workmen from the Devonshire estates may have introduced an English element to the building style that is not seen elsewhere in the county.

The Main Street consists of rendered terraced three storey buildings dating from the late 18th century onwards. The majority of the buildings on

the Main Street have or had commercial use on the ground floor. Many of the buildings have robust moulded render surrounds around the windows. Interesting shop fronts such as Greehy's, The Lismore Wine Vaults have a rendered fascia and rose lettering which represent a traditional Irish shopfront. The rendered detailing on buildings such as the Vault Café and the West End Bar are of considerable artistic design importance, and which serve to distinguish the composition in the streetscape. Remains of timber and render shopfronts remain along Main Street Chapel Street, Ferry Lane etc but the buildings are now in residential use. Another feature of the Main Street are the carriage arches which access the rear yards and which still have small courtyards within their long curtilage plots to the rear.

The late 18th and early 19th century small scale single storey terraced houses, along New Street, Chapel Street and Church Street were built by the Duke of Devonshire as accommodation for the workers on the Lismore Castle Estate. A feature of many is the gabled dormer attic windows and in some cases along Chapel street jettied box oriel windows.

On the South Mall there is early 19th century detached three bay two storey houses of Classical portions. These middle sized houses make a positive contribution to the streetscape value of South Mall, the avenue laid out under the supervision of the Duke of Devonshire in the early nineteenth century.

Other buildings of note include Classical style The Hall (1776) Lismore Villa (1840), The Union Workhouse complex (1841) and The Railway Station (1872).The wide tree lined approaches and fine stone walls form an intrinsic part of Lismore's character and the vistas have been kept relatively free from any unobtrusive building or development.

The elegant Spire of St Carthages Cathedral, the Clock Tower of the Heritage centre and the bell Tower of St Carthages Catholic Church punctuates the skyline. Views and vistas in the town include

- The view of Lismore Castle on the approach from Ballyduff and Cappoquin Roads
- The view along the avenue to Lismore Castle
- The approach to the Monument
- The view down the North Mall to Lismore Cathedral
- The North and South Mall both directions
- Views along the Main Street
- The approach roads into the town

Public realm includes the Park, walks along the River

All these factors combine to contribute to a well defined urban space, rich in historical architecture and archaeology and make of Lismore a town with a unique character. It is considered that the ACA of Lismore is of historic, social, archaeological and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to the east to include the views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards based on the assessment of special character for Lismore

In conjunction with general development management guidelines. The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Lismore have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.
Roofs	The roofscape of Lismore is part of its special character in particular the projecting stone eaves. Historic roofs were mainly pitched slate roofs; usually using Bangor Blue slates some which are very large and fixed in diminishing courses .Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional window types in Lismore are timber single sliding sash, multipaned windows, horizontal side sliding sash and box oriels windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA.

	There is tradition of historic dormer windows mainly on single storey houses within Lismore and their removal or alteration is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design of the historic half dormers in the vicinity. Many doorways of middle sized houses have fanlight features are features to be retained and repaired according to best practice as per Dept of AHG advice series
Shopfront	Original and traditional shopfronts should be retained or repaired according to best practice as per Dept of HLG and H advice series
Carriage archways	Carriage arch openings are a feature of the streetscape in Lismore. These openings should be retained with planning permission required for alterations.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Lismore. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Extensions	Traditional terraced houses and single-storey workers houses such as those in New Street, built of simple materials in modest style, are an important component of urban streetscapes. The following works require planning permission: • The raising of eaves levels, alteration of roof pitches or insertion of dormer windows. Such works may have the potential to negatively impact on the character of vernacular streetscape • Alterations or extensions to provide modern facilities. Such works should be carried out in a sympathetic manner which respects the form and function of the existing building. • Proposed extensions to the rear of single story workers houses should not extend over the existing ridge height of the original building. Extensions shall respect the existing height, scale and massing of the original building.
New build/infill	With new development a strong emphasis should be placed on sensitive integration into the existing character of the area. In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape. Established views to and from local landmarks should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character of Lismore • The elevational treatment of the new development should be well-proportioned and built having respect to its context. • Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.

Developments within curtilage	New development within these sites should retain the predominance of the main building on the site and should respect the pattern of the historic urban grain of Lismore.
Advertising/ Signage	To ensure the preservation of the character of an ACA when assessing proposals for advertising. New signage must not detract from the character of the ACA.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area. The Council will take note of existing shopfronts, cut stone steps when doing works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc

Passage East

Description and Historical background

Passage east is a small, scenic fishing village, centered on two interlinking open squares. Situated on flat ground at the base of high cliffs the village looks out into the estuary of two rivers - the Barrow and the Suir.

Passage east has an impressive history. Due to its strategic location it formed parts of the defences of Waterford City. In 1170, as part of the Norman invasion of Ireland, Richard de Clare, better known as Strongbow, landed in Passage East with an expeditionary force of 200 knights and 1000 armoured men. From there he went on to capture the city of Waterford. Prince John, who later became King John, was the first English King to land in Ireland, arrived at Passage East. The huge army of Richard 2nd arrived here in 1394. In the 15th Century the granting of lands to the Knights Templar and their development of the ferry gave Passage it name (Passagium).

A circular blockhouse was built before 1568 and only the remains of the circular corner town remain. A settlement developed around it which included Aylward House.

New Geneva Barracks which is located 2 miles south of Passage East was identified as the proposed site for a planned colony for artisan and intellectual Genevan settlers, who had become refugees following a failed rebellion against a French and Swiss government in the city. Ireland had been granted a parliament separate from London in 1782 and it was thought that the creation of the colony would stimulate new economic trade with the continent. James Gandon, who designed the Custom House, was commissioned to create a masterplan for the site overlooking the Waterford Estuary. The plans for the colony eventually collapsed, however, when the Genevans insisted that they should be represented in the Irish parliament but govern themselves under their own Genevan laws. It then became a barracks following the United Irishmen Rebellion in 1798.

It is thought that some of the elements of the layout for Geneva Barracks such as Squares for parading were instead used in Passage East. The grid like pattern of the streets indicates a planned village and ostensibly the buildings appear late 18th early 19th century. However some of the buildings retain some earlier fabric and are possibly date from late medieval especially down by the Quay. Passage East is identified as a National Monument due to its rich archaeological heritage

Summary of special character

The location of Passage East by the sea means that the quay area/harbour area is a very important element of the streetscape. Passage East is mainly composed of vernacular buildings with few commercial properties and the historic core is centered on the streets leading from the two main Squares, Parade Square and Post Office Square which are connected via the wide Barrack Street.

St Anne's Church of Ireland church, built 1746 occupies a prominent site on the steep cliff overlooking Passage East. The mix of late 18th century / early 19th century small two storey terraced houses juxtaposed with taller two and three storey houses with irregular arrangement of openings and roof heights give Passage East has an attractive streetscape. The two storeys rendered terraced houses on Post office Square, White Wall, Dobbyn Street has a pattern of window and door opes that are typical of eighteenth-century architecture, and which form an attractive feature in the streetscape. The low level and height of the windows, thickness of the walls on mainly corner buildings throughout the village indicate an even earlier date of construction

Parade Square is open on one side to the Quay and accommodates the cars waiting for the Ferry. This Square is a mix of terraced houses. This varies from two-bay two-storey houses, c.1840 which have an attractive small scale composition to a three-bay two-storey modest-scale house, c.1845 of balanced proportions and symmetrical appearance to the 18th century three storey houses including one which was previously a hotel. Post Office Square opens on one side to the sea. It is also a mix of terraced houses. Houses here are mainly late 18th century /early 19th century. The low height of the windows of the corner dwellings suggests an early construction date The house type varies from two-bay two-storey houses, which have an attractive small scale composition with informal openings to a three-bay two-storey house, balanced proportions and symmetrical appearance to a terraced five bay two storey house c1775 . Bastion House and the old Garda Barracks are three storey houses on Barrack Street are c.1830 well-composed, middle-size house of balanced proportions and symmetrical appearance with original multipaned windows. The houses form an integral component of the townscape of Passage East, introducing an element of formal architecture to the locality Furlongs Public House was possibly originally single-storey, and reputed to originally have been thatched, the building is of considerable age, as identified by features including the deep massing to the walls, the informal arrangement to the openings, and the battered section to the side elevation.

Other terraces of houses of small scale composition are the early 19th century houses located at Brookside. There are also early 19th century single storey houses along the Quay and at Blynd Quay; the pitch of some indicates they may have previously being thatched. Beresford Row is a terrace of 9 single-bay single-storey house with half-dormer attic, c.1870 typical small-scale residences built for local fishermen. Within the streetscape of Post Office Square and The Quay there are areas where buildings have been previously removed and there are now walls or storage garage areas which have a negative visual impact.

An important feature of the architectural heritage of Passage East, are the historic quay walls and piers dating from the at least the early 19th century, possibly earlier. There have been later interventions with works /extensions using reinforced concrete. The various phases of the pier highlight the evolution of the harbour over the years. These are of significance as an integral component of the continued development of the harbour that traditionally supported the economy of the locality. Within the village there are a number of rubblestone boundary and retaining walls. There is also a section of stone cobbling just off Post Office Square /White wall. The Pilot station c. 1850, the adjacent boathouse and the redbrick building now a community hall (previously used for smoking fish) are of a distinctive appearance that are of considerable significance for its associations with the fishing industry in Passage East.

Three freestanding cast-iron water pumps, c. 1880 represent important early-surviving artifacts in mass-produced cast-iron ware. The design in particular the lion mask spit, serve to enhance the artistic distinction, and reflect the equal emphasis placed on aesthetics as well as functionality. The water pumps are of particular significance as a reminder of the mechanisms put in place for the provision of clean drinking water in the period before mains water systems

The form and arrangement of public open space is around Parade Square and Post Office Square and the wide Barrack Street linking both. The Quays and the areas around the remains of the tower are also open spaces.

The views include the arrival from either approach road, and the vistas from the sea/quays looking back in at the village are particularly impressive. Whilst there is a formal quality to the layout of the village, the different construction dates of the terraced dwellings means that there is a mix of elevations and roof heights which gives the village a charming architectural appeal... It is considered that the ACA of Passage East of its historic, social, archaeological and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to include the harbour and quay area, views and vistas on the approach road into the village, which contribute to its setting.

Development Management Standards based on the assessment of special character for Passage East

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Passage East have a rendered finish. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall.
Roofs	The varied height of the roofscapes of Passage East is part of its special character. Historic roofs are pitched slate roofs, usually natural slate. On the terraced houses the stepped arrangement should be retained. Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscapes such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Windows	The traditional window type is timber single sliding sash and multipaned windows in the larger houses. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is a tradition of historic dormer windows on the front elevations of small scale buildings within Passage East ACA and their removal is not considered acceptable. Any proposed new dormers on historic single storey buildings should respect the existing size and design of the historic half dormers.
New build/infill	In the cases of replacement buildings within the core of Passage East, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape. Established views to the village should be maintained. All new buildings should contribute to the visual enhancement of the village and in particular the Squares, while respecting its physical character. The elevational treatment of the new development should be well-proportioned and built having respect to its

	context. Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Boundary walls	Historic rubblestone boundary walls are evident in the village and add to the special character of Passage East. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Quay walls and piers	Any intervention to the quay walls, piers and seawalls shall retain the historic rubblestone construction elements.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Portlaw

Description and Historical background

Portlaw is located on the river Clodiagh - a small tributary of the River Suir.The town of Portlaw as we now know it was developed in the nineteenth century by the Quaker Malcolmson family. It initially owes its existence to the establishment of a cotton mill by David Malcomson in 1825. The scale and technological achievement at the Mill represented a remarkable success for its time but it was the creation of Model Village is one of the most enduring and important aspects of the town and a testimony to the Quaker ideals of the Malcomson. At its peak, Portlaw had over 4,000 inhabitants and, by 1844, over 1,800 people worked at the Mill.

Prior to the development of the Model village, the initial settlement at Portlaw was located on Green Island and consisted of 72 houses. The Model village was developed to house the workers for the cotton factory. The village was built for the betterment of the workers and it was shaped by the religious beliefs of the founders. The workers were cared for from “cradle to grave” with schools, dispensary, courthouse and churches of several denominations. The family constructed 50 two storey and 250 single storey houses of uniform pattern. The quality of construction and level of comfort was superior to other workers houses of the time.

The Malcolmsons’ firm collapsed in 1877. The Portlaw Spinning Company took over the mill, but it failed in 1897. By 1910 the town was desolate, but in 1935 it entered its second period of growth the opening of Irish Tanners Ltd. the tannery, reflected the protectionist policies of the Irish government following independence in 1922.The tannery was at one stage, was the largest in Europe, employing 600 people. The Tannery ceased in 1985 but some operations continued there until 1993.

Summary of special character

The built heritage of Portlaw, within the Model town area, is a physical manifestation of past social, economic and cultural events. In its heyday, in terms of scale and sophistication, Portlaw would have matched other world renowned model towns such as Saltaire and New Lanark. Through marriage the Malcomsons were connected to Quakers who designed Bessbrook, the only other planned industrial town in Ireland. Portlaw was also thought to have been a model for Bourneville, which is considered the pinnacle of this form of social and urban planning. The layout of the model village inspired by the Baroque tradition of urban planning make it exceptional both in the context of Irish urban development as well as that of model village design.

The village of Portlaw still retains many of the features of the planned 19th Century industrial settlement. Four streets William Street, Brown Street, Bridge Street and Street radiate from the Square and the gateway of the Old Mill, which would have been the centre of all activity. Along these streets are the workers houses. They are single and two storey houses with a the distinctive curved roof constructed with a one inch by one inch of lattice timber truss, this in turn was originally covered by calico ~ a kind of cotton cloth -, manufactured in the factory, and then covered with tar. Nowadays it is usually felt. Substantial overhanging eaves also characterize the roof type. These types of roofs were unique to Portlaw and became known as "Portlaw roofs". These roofs were very durable and still are to be seen today in Brown Street, William Street and Bridge Street. These roofs were later copied in Carrick on Suir, Belfast and in Gelsenkirchen the Ruhr. John Skipton Mulvany who designed the large houses for the Malcomsons in Portlaw was the brother of William Thomas Mulvany an Irish mining entrepreneur in Germany so hence the presence of the “Portlaw roofs” in Germany. Some historic timber shopfronts remain around the Square and O’Connor’s at Brown Street,

Central to Portlaw is the Old Cotton Mill/The Tannery site. The present layout of the factory buildings began in 1825 with the Cotton mill complex. The main block is a fifteen-bay five-storey rubble stone block originally detached, and was originally six-storey. The thirteen-bay five-storey rubble stone block, built 1837 - 1839, to north was originally six-storey. The factory was used for tanning from 1932 – 1985. The buildings were extensively extended, 1945, to accommodate its use as a tannery to include a 26 bay four storey concrete building with a flat roof. The pair of water wheel pits, the engine house, the redbrick chimney, weirs still remain. The site is now derelict, the fittings of technical or engineering interest now gone. The site is considered of national importance.

Around the town there are a variety of civic structures such as the Courthouse, the Schoolhouses and the Dispensary (now a Heritage Centre). Dwellings include the Classical style mansions such as Mayfield House (now derelict), Clodiagh House, Woodlock House and remains of Milfort

House estate (c.1850). All these estates are is of considerable significance as they were designed by John Skipton Mulvaney for various members of the Malcomson family.

There are 3 churches in the town Catholic, Church of Ireland and the now defunct Presbyterian Church. The gothic Revival Church of St Patricks (1858) was built to plans prepared by J.J. McCarthy and is of National importance. Holy Trinity Church Gothic Revival style Church (1851) was built to designs prepared by William Tinsley which includes a variety of details, including distinctive Hindu Gothic-style motifs . The First Fruits style Portlaw Presbyterian Church (c.1820) reminder of the once-prosperous Presbyterian community in the locality.

Just outside the town lies Curraghmore House which is of national importance and has one of the most intact Historic Demesnes in the country

In Portlaw the main vista and setting begins with the area around The Square but areas such as the approaches into the town along the Ballycahane Road overlooking the town, entrances to the key buildings such as Woodlock House, Curraghmore House etc. The rubblestone bridges, the remains of canal walls and the rubblestone walls on the approach into the village. All these structures form attractive features of the streetscape and contribute to the character of the town. The architectural conservation area is considered of historical, architectural, cultural, technical and social merit

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 include the historic core of the village around the Square and the streets radiating from it Brown Street, George Street, William Street, Main Street and Queen Street, Clonegam Road and Factory Road have been extended to the east to include includes the Mill and along the canal and river banks.

Development Management Standards based on the assessment of special character for Portlaw

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Portlaw have a rendered finish. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.

Roofs	The roofscape of Portlaw is part of its special character in particular distinctive Portlaw roof. Original elements and profiles should be retained and repaired. The removal of original roof and roofing material such as natural slate, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The original windows style would be historic sliding sash with evidence of multipaned windows still in situ. . Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA.
Shopfront	Original/early shopfronts should be retained or repaired according to best practice as per Dept of HLG and H advice series.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Portlaw. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Extensions	Traditional terraced houses and single-storey workers houses such as those in Brown Street, built of simple materials in modest style, are an important component of urban streetscapes. The following works require planning permission: • The raising of eaves levels, alteration of roof pitches or insertion of dormer. • Windows. Such works may have the potential to negatively impact on the character of vernacular streetscape. • Alterations or extensions to provide modern facilities. Such works should be carried out in a sympathetic manner which respects the form and function of the existing building. • Proposed extensions to the rear. Such works should not extend over the existing ridge height of the original building. Extensions shall respect the existing height, scale and massing of the original building
New build/infill	With new development a strong emphasis should be placed on sensitive integration into the existing character of the historic core of Portlaw. In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the planned streetscape. Established views to and from local landmarks should be maintained.

	All new buildings should contribute to the visual enhancement of the area while respecting its physical character. • The elevational treatment of the new development should be well-proportioned and built having respect to the context of the planned village. • Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability. Regarding Milford House, any development of this area shall have regard to the topography and architectural heritage of the site, as identified by the NIAH.
Developments within curtilage	New development within these sites should retain the predominance of the main building on the site and should respect the pattern of the historic urban grain of the planned village
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Stradbally

Description and Historical background

The earliest settlement at Stradbally (A tSráidbhaile) was probably around the Medieval Church but today the centre of the village is associated with early 19th century planned village developed by the owners of the nearby Wood House Estate. It village is located on a hill near Stradbally Cove. The village has expanded along the approach roads with housing developments. One such estate consists of modern two storey thatch houses.

Summary of special character

This planned estate village is centred on the Green. Terraces of rendered two storey, 3/4 bay terraces houses c. 1820 are located the west, north and eastern ranges of the green. Their character enhanced by the rendered and painted facades with simple classical window and door proportioning the undulating roof lines and modest vernacular detailing contribute to the character of the village.

Also on the eastern range the Garda station is three-storey house, c.1780, a prominent feature in the townscape of Stradbally, representing one of the earliest-surviving civic buildings in the locality. The Rectory Tudor-style rectory, c.1870, c 1820 and the adjacent house forms the remainder of the western range around the Green. Glenview House middle size house c 1820 forming a prominent and picturesque landmark in the townscape of Stradbally**.** The St James Church Board of First Fruits Church of Ireland church, built 1786 single-storey parochial national school, c.1820 are located on Nunnery Lane

There are two thatched houses one on Church lane and Cove cottage which is a cottage orne forming a prominent and picturesque landmark in the townscape of Stradbally. The long low massing of the previously thatched houses, some with corrugated iron roofs are still evident in Chapel Lane, Nunnery Lane, Monavud road. These are appealing, modest-scale dwellings that remain an important element of the vernacular history of the village.

Other features within the village include The Ball Alley is Chapel lane (c.1930) which remains in use, is a reminder of the cultural nation-building of the early Irish Republic, cast iron water pump the early 19th century rubblestone walls and in Stradbally cove is a freestanding two-bay single-storey rubble stone lime kiln, c.1800.

The public realm includes are area around the Green , the area next to the stream that runs into the sea at Stradballycove and the Cove area. The village is enhanced by mature trees in private dwellings and along the roadway down to the Cove . The Green formalises the village's character and contribute to the setting of the architecture and the views to /from the Green and make an important contribution to the town.

Although the village has expanded over time the centre has not changed and remains strongly linked to its planned layout. It is considered that the ACA of Stradbally is of historic, social and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to extended down towards Stradbally Cove to include the bridge and the limekiln

Development Management Standards, based on the assessment of special character of Stradbally

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Stradbally have a rendered finish. These original historic external finishes should be retained.
Roofs	The roofscape of Stradbally is part of its special character. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, thatch, stone eaves, corrugated iron paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not

	considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of historic dormer windows on the front elevations of buildings within Stradbally ACA and their installation on historic buildings will not be deemed appropriate by the local authority.
Carriage archways	Carriage arch openings are a feature of the streetscape in Stradbally. These openings should be retained with planning permission required for alterations.
Boundary walls	Historic rubblestone boundary walls are evident in the village and on the approaches into the village and add to the special character of Stradbally. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Tallow

Description and Historical background

Tallow is located on a low lying level floodplain to the south of the River Bride. Little is known of the early development of Tallow, there are references of a church possibly pre Norman times was settlement in the 13th century but did not have the status of a town. By the time of Desmond Rebellion 1579-84 there was a garrison of 120 men stationed here. The town was burnt by the Irish in 1598. There are connections with Sir Walter Raleigh and Richard Boyle who acquired Raleigh's lands in 1604 and established ironworks in the area. This was the source of the town's prosperity and growth in the early 17th century. Tallow was given a Charter in 1614 by James 1st. Under the terms of the Charter, the returned two members to the Irish Parliament in College Green, Dublin an indicator of the wealth and importance of the town. The town lost this privilege in 1800, with the Act of Union.

When iron smelting came to an end other industries such as wool combing and milling continued to give employment. By 1835, the principal trade was the export of grain on boats down the Bride to Youghal and then England from fertile hinterland of North Cork. There was a large ale brewery of Anthony and Terry, and a flourmill owned by the Hannon family. There was also a lace industry.

Today most of the towns fabric in the historic core dates to the eighteenth and nineteenth centuries when it was part of the Duke of Devonshire's Estate The town developed as a planned market town and has a cruciform layout centered on a crossroads . It has a strong industrial heritage which is apparent in the surviving mill buildings and was a prosperous town as evidenced in the number of shops.

Summary of special character

The quality of the buildings attests to the wealth of the town in the early 19th century. This is evident in industrial heritage, the number of middle size houses, the number of shops indicate the commerce of the area.

The four main approaches into the town are lined initially by early 19th century single storey terraced houses. Some of these rendered dwellings have half dormer windows. The "twin" chimneys associated with these houses has an artistic quality. These houses have retained their long curtilage plots to the rear which is also a feature of the two storey terraced houses

At the crossroads along West Street and Barrack Road are well proportioned three storey rendered terraced houses with historic shopfronts to the ground floor. Some of the earliest shopfronts in Waterford are still in evident in Tallow. Many of these are now residential but the remaining shopfronts still remain and enhances the visual appeal of the streetscape. Along West Street, Cunningham's has a bowed shopfront dating from the 18th century. Also in West Street are fine Classically-detailed shopfronts of artistic design distinction such as Hartigan's, Healy Crowley, Ann Tobin. Lynches is a particularly fine example in residential use now and the raised lettering and classically detailed door case are of artistic merit. Other shop front of merit includes the timber shop front at TJ Keniry's and the Chinese restaurant on Convent Street.

Large detached three storey houses dating from the late 18th early and 19th century such as the Old Rectory (1840) is located along West Street includes such features as Classical style Doric doorcases. In Barrack Street the Old Parochial House has a pediment breakfront and fine channeled door case.

The Devonshire Hotel (1840) is a well-proportioned substantial building incorporating Classically-derived features, including Venetian-style and Diocletian window openings, which enhance the architectural value of the composition, and which serve to distinguish the site in the street scene. The building remains of particular importance in the locality on account of its associations with commercial travel in the mid to late nineteenth century, having been purpose-built as a hotel for visitors to Tallow.

The numerous warehouses are a reminder of the extent of the industrial activities practiced in Tallow throughout the nineteenth century. They form a prominent feature in the streetscape, and contribute to the character of Tallow. Hannon's Mills was originally built as part of a corn/flour mill complex and was at various stages a barracks in the late 18th century, and an auxiliary workhouse in the mid 19th century. The building forms a neat group with associated ancillary buildings in the immediate curtilage. Even in its derelict state it is of considerable importance and forms a dominant landmark on the road leading out of Tallow to the south. The mills on Convent Street have been converted into apartments. One of the gable fronted warehouses in West Street has been converted in to a Community centre. The Glenaboy River flows parallel with Barrack Street and along this river would have powered the historic saw mills, corn store; remains of these buildings still remain etc

The Carnegie Library (1910) was one of 5 libraries sponsored in County Waterford by Andrew Carnegie. It is still in use as a library .The Church of the Immaculate Conception built in 1836 has highly ornate Gothic-style reredos of considerable artistic design distinction. St Paul's First Fruits Church (1775) with its very decorative plasterwork originally had an entrance off West Street hence the presence of the Rectory, parish Hall and Parochial School on this street dating from early 19th century. The graveyard also has a variety of grave stones and tombs dating from the 18th century

Boyce's Almshouses are picturesque small-scale terrace of houses which retain the original form and massing, together with substantial quantities of the original fabric an appealing feature in the streetscape on the road leading from Tallow to the south-east.

The special character of Tallow is very evident in the industrial and vernacular streetscape and is reflection of the prosperity of the town in the 18th and 19th centuries. It is considered that the ACA of Tallow is of historic, social and architectural merit.

Location and Boundary of ACA

The boundaries of the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 have been extended to the east to include the Glenaboy River and remains of millrace which contribute to its setting.

Development Management Standards, based on the assessment of special character of the village

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic residential buildings within the Architectural Conservation Area of Tallow have a rendered finish. Many of the buildings have robust plaster work /or stone detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone, the council would not be favourably disposed to the

	plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.
Roofs	The varied roofscape of Tallow is part of its special character in particular the projecting stone eaves. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slates some which are very large and fixed in diminishing courses Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is a tradition of historic dormer windows on the front elevations of single storey buildings within Tallow ACA and their removal/alteration is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design of the historic half dormers.
Shopfront	Some of the earliest shopfronts in Waterford are still in evident in Tallow .Original/early shopfronts should be retained or repaired according to best practice as per Dept of AHG advice series.
Carriage archways	Carriage arch openings are a feature of the streetscape in Tallow. These openings should be retained with planning permission required for alterations.
Warehouses	The retention of warehouses is encouraged. Such buildings could be converted into residential and community use.
New build/infill	In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the historic core of Tallow. Established views to and from local landmarks should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. The elevational treatment of the new development should be well-proportioned and built having respect to its context. Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape of Tallow and should

	employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Tallow. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area. The Council will take note of existing shopfronts, cut stone steps when doing works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc

Tramore

Description and Historical background

The seaside town of Tramore (Tra Mhor) is located on the north- western corner of Tramore Bay on and hill that slopes down to the Strand. In 1785 this one-time fishing hamlet with thatched cottages along an irregular street now known as Main Street and along Strand Street, was transformed into a tourist resort by Bartholomew Rivers, a wealthy Waterford merchant. In the 19th century Lord Doneraile invested in the town's infrastructure and the early settlement spread west hugging the line of the bay.

The opening of the Waterford and Tramore Railway Line in 1853 was a tremendous boost to tourism in the resort. The line provided a quick and easy way of getting to the seaside and resulted in becoming the main resort for sea-bathing by the inhabitants of Waterford and of the adjacent counties. Anyone building a house in the town had the building material carried at a reduced rate by the Railway Company. As a result of this incentive, imposing terraced houses such as Bellevue and Gurteen Terrace were constructed. On purchasing houses in Tramore the owners were provided with a first class free Railway passes for 5 years.

The town began to expand rapidly both as a seaside resort and a dormitory town for Waterford City. The construction of Harney's seawall in 1893 further increased the tourism potential for Tramore and many of the buildings in the core of the town catered for the visitors until the late 20th century

Summary of special character

Tramore Town is a quintessential Victorian seaside resort. The street pattern of Tramore is determined by the topography. The earliest part of the town is the narrow Main Street which travels uphill from Strand Street. The modest two storey traditional terraced houses along these streets were built of simple materials in modest style, with their stepped roof lines are an important component of urban streetscape .Many were adapted to accommodate the tourist business. In the adjacent area there are some modest single storey terraced dwellings and the walls of the Market. From the Main Street and along Lower Branch Road, the terraces of Victorian houses are positioned on the hill to maximise the views of the Bay. The best views of the terraces of houses and detached villas can be appreciated from the Beach area. Holy Cross Church forms a dominant feature on the skyline whilst Christ Church is also located on the hill.

Streets and terraces of Victorian houses within the historic core include Atlantic View, Endsleigh Terrace, Doneraile Terrace Richmond Terrace, Tivoli Terrace, Eaton Terrace, Queens Street, Upper Branch Road Bellevue Terrace, Marine Terrace, Lyon Terrace The vehicular/ pedestrian access to some of the terraces such as Bellvue Terrace and Atlantic Terrace divides the gardens from the houses . Along Church Road there are large detached houses set within landscaped gardens or pairs of larger houses. Almost all the houses are rendered. The main roof type is pitched slate with clay ridge tiles. In and around Main Street the roof pitches of what were commercial buildings are low and obscured by low parapets. There are very few examples of traditional shopfronts left in Tramore. Crokes and Victoria House are some of the few examples of a moulded rendered shopfront.

The mix of structures from modest single storey terraced houses to large Victorian three storey pairs or terraced houses such as Marine Terrace or Gurteen Terrace mark the evolution of the Tramore from a small fishing village to a popular seaside resort. The majority of the Victorian terraced houses still retain their rendered finishes, casement windows and doorways which include details of moulded plasterwork, fanlights and sidelights.

The main civic buildings in the town include the Railway station, The Coastguard Station, Christ Church, Tramore House and Gardens and the Quaker Hall. Holy Cross Church designed by J.J McCarthy is considered of National importance and is a landmark building of on the horizon of the town. The old Railway Station visible on the approach into the Town. A striking feature of the streetscape of Tramore is the rubblestone walls.

Vistas and settings include

- The approach into the town on the Waterford Road
- The view from the Beach uphill towards the town
- Views onto and from the Doneraile Walk
- View up and down Train Hill
- View up Main Street
- Views from the Coastguard Station towards the Metalman and Brownstown Head
- Terraces of houses such as Atlantic Terrace and Gurteen Terrace

Public realm includes the Beach area, Doneraile Walk and The Square. To a lesser extent parts of the Main Street and the area next to the railway station could also be considered. The mature planting in Bookey Woods and in the gardens of the larger detached houses contributes to the character of the streetscape.

The mix of building types and the many good examples of Victorian residential architecture, the long lengths of rubblestone walling ,the street furniture such as post-boxes, bollards, kerbing etc and the fine examples of wrought iron works in railings and gates around the town, most notably along Church Road , Upper Branch Road all contribute to the special character of the historic core of Tramore ACA . It is considered that the ACA of Tramore of is historic, social and architectural merit.

Location and Boundary of ACA

The ACA encompasses the main historic core. This area is bounded by Lower Branch Road, Turkey Road, up from Strand to Main Street and encompassing Market Street, The Square, Queen Street and Upper Branch Road.

Development Management Standards, based on the assessment of special character of Tramore

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Tramore have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.
Roofs	The roofscape of Tramore is part of its special character in particular the stepped arrangement of the rooflines along Main Street and Strand Street... Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA. There is no tradition of historic dormer windows within the Tramore ACA and their installation will not be deemed appropriate by the local authority.
Boundary walls	Historic rubblestone boundary walls, pillars some with the house name engraved on them are evident in most areas of the town and add to the special character of Tramore. Their removal can be detrimental to the character and therefore is discouraged. Planning permission will be required for the part demolition and /or alteration of same. Any proposals to convert front gardens for use as off street parking will not be permitted.
Cast iron	A characteristic of the streetscape of Tramore is the survival of some fine ironwork, in the form of railings and gateways to Victorian and Edwardian houses, and the bollards on Train Hill. Original elements should be retained, and repaired according to best practice as per Dept of AHG advice series rather than replaced.
Developments within curtilage	Division of long curitlages associated with Victorian terraces will not be facilitated as it would impact on the vista and setting of the terraces.

Infill	In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape of Tramore. Established views to the bay area from the Victorian terraces should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. • Pastiche or replication of historic design is not always appropriate and high quality contemporary architectural design is acceptable in some cases. • The elevational treatment of the new development should be well-proportioned and built having respect to its context to the existing streetscape of Tramore. • Buildings should follow the eaves heights, roof pitches and building lines of the Victorian terrace houses which predominate in the streetscape of the core and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Height	The predominant height of existing buildings shall be respected and any proposals should harmonise with the existing streetscape in particular on Main street, and the existing Victorian terraces.
Street furniture	It will be Council policy to retain historic items of street furniture such as bollards, post boxes, grills to basement levels, kerbing as they contribute to the character of the ACA.
Vistas	It is Council policy to protect and enhance the vistas and settings of Tramore which include • The approach into the town on the Waterford Road • The view from the Beach uphill towards the town • Views onto and from the Doneraile Walk • View up and down Train Hill • View up and down Main Street • Views from the Coastguard Station towards the Metalman and Brownstown Head • Terraces of houses such as Atlantic Terrace and Gurteen Terrace To seek the retention of mature trees/significant planting (those in good condition) which contribute to the character of the ACA?
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Villierstown

Description and Historical background

The Irish name for Villierstown, An Baile Nua alludes to its foundation as a planned settlement. The village of Villierstown was founded in the 1740s by John Villiers, the first Earl of Grandison to accommodate linen weavers from Lurgan Co Armagh. He lived in Dromana House which lies 2 km to the north of the village. The settlement was planned around an Anglian Church, a school, a rectory, a police station and 24 dwellings all constructed from local sandstone. The village was substantially complete by 1750. The historic village is linear with an open space known as the Green located mid way along the village. This would originally have led to the quay on the River Blackwater 500m to the west. The linen industry died out by the mid 19th century but the majority of residents would have been employed by the Dromana Estate.

Summary of special character

The planned estate village of Villierstown has a unique architectural character. The layout of the village today retains the original formal plan with the wide Main Street flanked by houses.

Villierstown Church forms an important element of the townscape of Villierstown, as suggested by the prominent site in the centre of the village. Finely detailed, Classical proportioning and a distinctive bellcote, contribute significantly to the architectural design quality of the building. The church has been converted to a community hall; on its grounds is the Villiers-Stuart's family burial vault where many of its ancestors are buried. The Church closes the vista from The Green.

The buildings on the main street are mainly two storey residential detached or in pairs with access to large garden plots to the rear. Houses on either side of the Church and the Lodge have gabled dormer windows. On the Green are a terrace of 6 three bay two storey houses and the remains of cottages which are possible early 19th century. Tracey's Bakery retains the rendered shop front signage.

Villierstown House (The Parsonage) c. 1800 is a classically proportioned, middle-size house located within its own grounds to the north of the village and was associated with the Church of Ireland Church

The influence of the Villiers Stuarts of nearby Dromana House is evident in not only the name of the village but also The Celtic Cross Villiers monument (1874) The memorial fountain (1910) These occupy a prominent site in the centre of Villierstown,

There are 3 cast-iron pumps dating 1875 to 1900 which are of particular importance as evidence of the mechanisms installed for the provision of clean drinking water before mains water systems

On the approach roads in there are rubblestone walls and the road north leads through an elegant gateway comprising of limestone ashlar piers which an appealing feature at the entrance to Villierstown, and is of additional significance for its associations with the continued development of the village by the Dromana House estate in the mid to late nineteenth century.

The setting is enhanced by the mature trees in private properties around the village and the formal entrance into the village via the gateway to the north. The public realm includes the area known as The Green and the area around Villierstown Quays

It is considered that the ACA of Villierstown of is historic, social and architectural merit.

Location and Boundary of ACA

The boundaries of the ACA follow the streetscape of distinctive character in the Waterford County Development Plan 2011 – 2017 and extended to include the historic quay on the River Blackwater

Development Management Standards, based on the assessment of special character of the village

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of buildings within the Architectural Conservation Area of Villierstown have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained.
Roofs	The roofscape of Villierstown is part of its special character in particular the projecting stone eaves. Historic roofs were mainly pitched slate roofs, usually Bangor Blue slate.Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional door type is timber panelled door and the window type is timber single sliding sash or multipaned windows. Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent

	with the character of the ACA. There is a tradition of historic dormer windows on the front elevations of buildings within Villierstown ACA and their removal is not considered acceptable. Any proposed new dormers on historic buildings should respect the existing size and design of the historic half dormers.
Carriage arches	Carriage arch openings are a feature of the streetscape in Villierstown. These openings should be retained with planning permission required for alterations.
Boundary walls	Historic rubblestone boundary walls are evident on the approaches into the town and add to the special character of Villierstown. Their removal would be detrimental to the character and therefore is discouraged. Planning permission will be required for their removal and /or alteration of same.
New build/infill	In the cases of replacement buildings, new buildings should take into account existing location, plot size and direction where possible, in order to retain the existing grain, character and setting of the streetscape of the planned village. Established views to and from local landmarks should be maintained. All new buildings should contribute to the visual enhancement of the area while respecting its physical character. The elevational treatment of the new development should be well-proportioned and built having respect to its context of the streetscape of Villierstown. Buildings should follow the eaves heights, roof pitches and building lines which predominate in the streetscape and should employ windows of matching proportions and alignment. Materials should be of good visual quality and durability.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area.

Proposed ACAs Waterford City

1. **Catherine Street**

Historic Development

Catherine Street is a wide street which extends from The Mall to St John's Pill. The name is derived from St Catherine's Priory, a medieval Augustinian foundation, the ruins of which were demolished when the Courthouse was constructed in 1849. The street developed as a fashionable residential area after the development of the Mall and the bowling green in the early 18th century and it contains some large houses which remain mainly in residential use. The main buildings of civic interest are the classical style Courthouse and the Italianate style St Catherine's Hall (1860) designed by Abraham Denny, which was originally a Church Hall and Sunday School. The redbrick and limestone Baptist Church(1910) with its stained glass windows and decorative terracotta detailing and the Masonic Hall in Waterside, Barrett's garage which was the first motor garage to be established in Ireland in 1900, are evidence of a vibrant and varied community.

General Character

The special categories of architectural, social, artistic and historic interest that justify the designation of Catherine Street as an Architectural Conservation Area are as follows:

- This street forms part of the Georgian expansion of the city and the majority of the buildings on this street are of architectural interest, with some being of artistic, historical and social interest. Two buildings on the street are of National importance – The Courthouse and St Catherine's Hall. Buildings of social and historic interest include the Courthouse, St Catherine's Hall, the Baptist Church and Masonic Lodge, Barrett's garage.
- On the east side of the street, the Georgian dwellings form terraces of three houses or pairs. These consist of 3 storey or three storey houses over basement with rendered walls, pitched slate roof, and sliding sash windows, some of which are multipaned windows.
- There is little or no curtilage to the front of the buildings and many of the buildings are accessed via limestone steps. Doors are typically Georgian with spooked fanlight, some with decorative pilasters. Side hung slating remains on only one building. Boots capers are also a feature of houses on both sides of the street.
- On the west side of the street there is one large 3 storey over basement house(c.1820) with multipaned timber sliding sash windows, accessed via a flight of limestone steps. The doorway of this building is impressive with decorative fanlight and timber paneled doorcase

with console. The remainder of the houses on the street consists of terraces of modest early 19th century two storey rendered houses with single sliding sash windows. Many have limestone steps, and spoked fanlight over the doors.

- There is rear access to some of the houses on either side of the street
- Of particular interest is the variety of cast iron railings on the street from the simple railings at the Courthouse and to the front of the terraced houses on the east side of the street to the robust railings at St Catherine's Hall,
- The streetscape retains its historic character with new interventions harmonizing with the existing buildings. This is especially notable with the new Courthouse extension

The distinctive features which enhance the architectural design quality of the street are natural slate roofs, tall chimneys, weather slating detailing, the multipaned and single sliding sash windows, spoked fanlights, pilaster detailing around doorways, limestone steps, carriage guard stones, and various styles of wrought and cast iron railings and boot scrapers.

2. Lower Newtown

Historic Development

The residential buildings in this area are part of the expansion of the city suburbs in the late 19th century and early 20th century. This is reflected in the various styles of two and three storey mainly terraced houses, some which have garden areas to the front. Percy Terrace, built between 1888-1890 by Cox Brothers, consists of a terrace of sixteen attractive, modest-scale houses that are distinguished by the use of red brick vitrified blue brick dressings. Grosvenor terrace was constructed 1896 by George Nolan, building contractor. Sweetbriar Terrace (1909) consists of six identical houses with a distinctive canted bay window, and a shared canopy design. St Declan's Terrace was constructed in 1885 by Captain Nicholas Sinnott. Many houses on Lower Newtown have square and canted bays.

General Character

The special architectural and historic interest that justifies the designation of Lower Newtown as an Architectural Conservation Area is derived from the following features:

- It forms part of the expansion of the suburbs dating from the 19th century that characterize the development of the city.
- The attractive scale, proportions and detailing is typical of late Victorian and Edwardian architecture.
- Some earlier 19th century houses are modest and well proportioned and retain features such as multipaned windows, fanlight, cut limestone steps and wrought iron railings

- The strong visual quality of the terraced red brick buildings with vitrified blue /brick dressings of Percy Terrace
- Details such as canted bay windows, and a shared canopy, add to the architectural interest of the design of the houses on Sweetbriar Terrace.
- Robust plaster detailing around window and door opes.
- The architectural value of the composition of the Terraces and pairs of buildings provide an attractive built environment.

The distinctive features which enhance the architectural design quality of the area are details such as canted and box bays, robust render details, timber sliding sash windows, gabled dormer windows, variety of styles of cast iron railings, the red brick and vitrified blue/ brick detailing of Percy Terrace. The flagstones and stone kerbs forming the pavement of public streets are highly distinctive.

3. **Daisy Terrace/Gracedieu/Summerhill**

Historic Development

The area forms part of the Victorian suburbs that characterize the development of the city from the 1890s. Daisy Terrace and Morley Terrace are located on an elevated site off the west side of Summerhill, on ground formerly known as Milward's Field. This name derived from the Waterford merchant family of Milward, who owned property here, and who established the bacon curing business lower down the street in about 1820 which was later to become Summerhill Bacon Factory of Francis E. Barnes. Daisy Terrace dates from 1892 and is named after the daughter of its developer, T.J. Farrell, Daisy Brady. The terrace consists of eleven two storey houses facing eastwards and overlooking the street (Summerhill). Features, including a canted bay window dressed in red brick. Morley Terrace is named in honor of John Morley an advocate of Irish Home Rule. Morley Terrace consists of 15 two bay two storey houses constructed around 1890. Features included round headed door opening with moulded rendered surrounds and 2/2 timber sash windows. To the front the original simple wrought iron railings enhance the houses and streetscape. The houses follow the topography of the slightly sloping site through the gradient of the roof line.

General Character

The special architectural, social and historic interest that justifies the designation of Summerhill as an Architectural Conservation Area is as follows:

- The general character of the area is terraces of Victorian two bay two storey houses constructed around the early 1890s as part of the expansion of the city to the suburbs
- The attractive scale, proportions and detailing is typical of late Victorian and Edwardian architecture.

- Some earlier 19th century houses are modest and well proportioned and retain features such as single and double sliding sash windows, fanlight, and simple wrought iron railings
- Details such as canted bay windows, add to the architectural interest of the design of the houses on Daisy Terrace
- Terraces of earlier 19th century buildings on Gracedieu Road provide a rhythmic architectural pattern and are an addition to the attractive built environment.

The distinctive features which enhance the architectural design quality of the streetscape include the natural slate roofs, canted bay windows with brick detailing, the historic plasterwork detailing around windows and doors, 2/2 sliding sash windows, historic dormer windows, sloping rooflines on Gracedieu Road, rubblestone walls and stone steps.

ACA encompasses 1-35 Morley Terrace and 18-29 Daisy Terrace, Gracedieu Villas, 104-144, Gracedieu Road, 1-9 Summerhill

4. Griffith Place. Morrison's Road

Historic Development

Morrison's Road was originally called Artillery Street because of its proximity to The Barrack. It became Morris' Road by the mid 19th century and by 1870 it became Morrison's Road. The distinctive stone fronted dwellings along 94-114 Morrison's Road and 1-20 Griffith Place were constructed in 1922 by Waterford Corporation. This was the result of massive government investment in local authority housing after Independence. Griffith Avenue is named after the political leader Arthur Griffith. The houses here are similar in design and materials to those on Morrison's Road.

General Character

The special categories of architectural, social, and historic interest that justify the designation of Griffith Place and Morrison's Road as an Architectural Conservation Area are as follows:

- It forms part of the expanding suburbs dating from 1922 that characterize the expansion of the city after Independence.
- The strong visual quality of the terraced rubble stone fronted buildings with rendered dressings and brick chimneys produce an attractive textured effect.
- The wrought iron railings to the front of the property emphasise the historic quality of the group.

The distinctive features which enhance the architectural design quality of the area are details such as the rubblestone elevations, cut stone detailing around window and door opes, red brick chimneys, timber sliding sash windows, stone sills and cast iron railings. A section of stone kerbing remains on Morrison's Road.

5. City Centre: O' Connell Street/ Great Georges Street/ Broadstreet/ Michael Street/ John Street

Historic Development

The variety, scale and types of buildings within this ACA reflect the different social and economic factors influencing the city over the centuries. This area of the city expanded outside the Viking centre in medieval times and there is a long history of markets and industry in the area. The buildings and curtilages became larger as the city expanded over the centuries. John Street is mentioned in records as early as 1302 and was the location of mills and tanneries in the mid 17th century and narrow medieval curtilage plots are evident along John and Michael Street. The late medieval Market Cross, which was located at the junction of Patrick Street / Peters Street, was removed in 1750 and the site of the Guildhall/Thosel and Town Hall would have been located to the west of Peter Street. Broad Street widens to a triangular shaped open space and functioned as a market place in the Anglo Norman era. Arundel Square was extended into an area previously known as the" Milkstreet" which was in existence in 1577. This would have connected with High Street which would have been located within the old Viking Town. The Applemarket was laid out in 1824 following the demolition and clearance of an island of houses there. In the 18th and 19th century the city expanded outside the city walls and the centre of commerce and banking extended along Great Georges Street and O' Connell Street with the construction of landmark buildings such as the Port of Waterford building and the various banks.

John Street would have been one of the main approaches into the city and the steep roof pitches of some of buildings such as 32/33 John Street indicate late 17th and early 18th century buildings. Steep roof buildings are also evident on Michael Street. A pre Norman Church survives just off Michael Street and the street is mentioned in texts from 1449. Building heights vary from low massing 2 and 3 storey buildings to 4 storey, and consist of paired or terraced building. Almost all have commercial uses on the ground floor and some retain residential use on the upper floors. Some buildings such as the 17th century 10, Michael Street, and 18, Michael Street, which is one of the few 18th century brick buildings in the city, were built as detached houses. At that time they would have been substantial buildings on the streetscape, an indicator of wealth derived from trade and commerce. Medieval fabric still remains in buildings such as 17, Broad Street.

The area previously known as Barranstrooon, Barrystrand, Berronstround, and now Barronstrand Street is mentioned from documents from 1476. The buildings back onto what were the walls of Viking enclosure of the city, and part of the city walls evident in Penny's. From 1784 Wide Street Commissioners works included the widening of Barronstrand Street .The buildings on Barronstrand Street, are predominately 3 and 4

storey, 19th century, in appearance with some modern infill buildings. There are some unique style buildings such as Arts and Crafts style (Dunne's stores), the mansard roof and decorative moulded dressings of the Book centre, or the gable fronted building on 9, Barronstrand Street (Boots) and the old Burtons building.

Great Georges Street would have been located within the Medieval City Walls. Late medieval fabric is still evident in buildings such as TH Doolan's. The demolition of the medieval quay walls began in 1705 thus facilitating the expansion of the city along the quays and outside the confines of the city walls. A distinctly Georgian planned streetscape emerged, which developed from the City Walls onwards especially down O' Connell Street. John Roberts, architect, designed the Catholic Cathedral, but also the Port of Waterford Building. The Georgian proportions, distinguished by the fine plaster work to the interiors attests to high quality local craftsmanship, and the artistic design quality of the buildings. The streetscape is dominated by buildings of National importance such as the Port of Waterford (1785), the imposing limestone Old Allied Irish Bank (1910) (now the South East Regional Assembly), the Classical style Old Waterford Savings Bank (Assembly House) (1841) and St Saviours Dominican Church (1872). Other notable buildings include the Venetian Gothic red brick ex National Bank (1887), the Catholic Cathedral Presbytery, Garter Lane Theater (formerly Friends Meeting House), and pairs of 4 storey houses. The scale of the buildings diminishes towards the western end of the street as they become mainly residential in use. The deep plots connected to the buildings fronting the quays were able to accommodate yards and warehouses. The Quaker families such as Penrose's, Whites and Jacobs lived here and had enterprises in the area which all contributed to its development.

Important historic shopfronts in the Georges Street/ O'Connell Street area include public houses such as J&K Walsh, TH Doolan and Thomas Maher, Frank English, Leo Murphy, Delany Florist, and the Modernist façade of 9' O' Connell Street.,

General Character

The special architectural and historic interest that justifies the designation of O' Connell Street/Great Georges Street/ Broadstreet/Michael Street/ John Street as an Architectural Conservation Area is derived from the following features:

- The development of the city can be clearly read through the expression of its buildings and streets from the narrow plots of John Street/ Michael Street to the planned Georgian streetscapes and buildings of O'Connell Street and associated deep curtilage plots.
- The mix of building types which vary from modest two storey buildings to buildings of National importance, dating from the 17th to 20th Century.
- Variety of design from vernacular, Neo Classical, Georgian, Victorian, Mock Tudor, Venetian Gothic, Arts and Crafts, and Modernist to contemporary building types.

- The mix of building uses from commercial, civic to residential buildings
- Historic shopfronts such which vary from traditional historic to modernist.
- The streetscapes which include narrow streets, wider areas such as the Applemarket, Barronstrand street, to Georgian streetscapes,
- Views and vistas along the Applemarket, towards and from the quays, along, Great Georges Street/O'Connell Street,

The distinctive features which enhance the architectural design quality of the street are natural slate roofs, tall chimneys, weather slating detailing, rendered and brick walls, the multipaned and single sliding sash windows dating from 18th century onwards , spoked fanlights, pilaster detailing around doorways, rendered detailing around doors and windows, limestone steps, carriage archways, carriage guard stones, and various styles of wrought and cast iron railings and boot scrapers and historic flagstones along O'Connell Street and St John's Avenue. The deep curtilage plots along O'Connell Street / High Street and the back of the Quays which include some historic warehouse buildings/yards. The variety of historic shopfronts from traditional such as 37a and 37 b John Street, J&K Walsh, TH Doolan and Thomas Maher and shops such as Frank English and modernist facades such as Burtons and 9, O'Connell Street.

6. Ballybricken Green/ Trinity Square/ Old Infantry Barracks

Historical background

Ballybricken is one of the oldest and most historic parts of Waterford City. It is centered around Ballybricken Green which is an open space which is located on an elevated part of the city overlooking the River Suir. It was known as Baile Bhric-Ghein meaning homestead or townland of the family or tribe and was located on the historic main route into the city from Dungarvan, Cork and Grannagh ferry. The Great Green is indicated on the Down survey Map and there is reference to a market in 1680. It was a thriving part of Waterford City with a collection of smaller scale commercial development and largely residential area. It had monthly fairs and hiring fairs also. It became the centre of the livestock and bacon-curing industry, and by the early 19th century Waterford became the largest producer and exporter of bacon and pork in Ireland. By the mid 20th Century however the meat industry in Waterford was in decline. In 1937 Matterson's Bacon Factory in the Glen was converted to the Regal Cinema Deluxe. In the mid 1970s the mart was relocated outside the city bounds and now the last surviving monument to the livestock industry is the bull post within the Green. More recently a bandstand has been placed in the Green.

For National and local politics Ballybricken was also a location for a number of prominent rallies and demonstrations during the 19th and 20th century with great orators such as Daniel O' Connell, Charles Steward Parnell, and John Redmond addressing large gatherings.

There was also a military aspect to the Ballybricken area. In the 1590s work commenced on St Patrick's Fort, which was located north east of the Green, bounding the city walls. This was replaced by the old Waterford jail built in 1727. The jail was rebuilt in 1861 and continued to be used as a prison until 1939. The Garda Headquarters is now located in the area with some of the prison walls are still in situ. Construction work on the Infantry Barracks was commenced in 1798. This was an extensive military complex which was surrounded by high rubblestone walls and with impressive limestone gateways. It is to be noted that the development of modern houses of Mount Sion Crescent and Military Barracks has had a negative effect of the sense of place of the former Barracks. However enough of the walls, gates and some of the original buildings still remain as an historical, social and cultural reminder of past generations.

Ballybricken has a collection of single and two storey terrace houses radiating out from Ballybricken Green, including streets such as Grattan Terrace, Francis Street and Trinity Square. The urbanisation of the Liberties began in 1720s and the gardens and parks on St Thomas Hill were developed with the laying out of Francis Street and adjacent streets which began in 1805. Development of the area was not completed until 1840s. Francis and Barker Street derived their names from the Barker family who included Samuel Barker and alderman and wealthy businessman. Towards the end of the 19th century, the Corporation began developing housing schemes which were terraces on houses on small plots of land. The first development of two storey houses on Green's Lane (now Green Street) in 1877.St Peters Square, Shortcourse, is a terrace of 7 two storey redbrick buildings constructed in 1896 .Trinity Square a scheme of 38 single storey houses around a central open square and was constructed between 1915-1917.

The house are mainly modest single and two storey rendered buildings with pitched slate roofs and this homogeneity of materials gives areas within Ballybricken such as Francis Street and Trinity Square a strong architectural pattern. The buildings facing onto The Green are mainly commercial with some overhead residential use.

General Character

An architectural conservation area (ACA) is a place, area, group of structures or townscape, taking account of building lines and heights, that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest .The special architectural, cultural social and historic interest that justifies the designation of Ballybricken as an Architectural Conservation Area are as follows:

- The social, cultural and historical importance of the area known as Ballybricken Green in the history of Waterford City from its origins as a Market, to a meeting place for hiring fair and political rallies.
- The influence of the industrial past and the need for workers houses evident in the terraces of dwellings that radiates out from the historic core of the Green including areas such as Francis Street, Trinity Square, St Peters Square, Shortcourse.
- The strong visual qualities of the terraces of 19th and early 20th century buildings provides a rhythmic architectural pattern and are an addition to the attractive built environment.

- The terrace houses provide a strong sense of community and residential presence.
- The Infantry Barracks - The survival of the walls, gateways and some of the historic buildings are of socio-historic interest and great importance as a reminder of the military presence in the locality.

The distinctive features which enhance the architectural design quality of the street are natural slate roofs, the multipaned and single sliding sash windows, plaster detailing around windows and doors in Francis Street and Ballybricken Green, redbrick houses of St Peters Square, limestone steps, raised paths, flagstones on Francis Street. The remains of the rubblestone boundary walls of the Infantry Barracks, limestone gateways, section of parade grounds, and some of the historic buildings which still evident.

Existing Architectural Conservation Areas

Dungarvan

Description and Historical background

Dungarvan is located on the banks of the Colligan River The original Irish name of the town; Dun Garbhan (Garbhan's Fort) takes its name from Saint Garbhan, who founded a church there in the seventh century. The town is flanked by hills to the north and south and the open maritime setting of the harbour and bay defines the town. Possible evidence of an earlier settlement has been found at Shandon. Dungarvan expanded and became a royal town under Henry II in 1175 and in 1215 King John granted a charter to Dungarvan. It was also at this time construction work on the Castle began and the town walls. The walls extended south from the Castle along to seafront to Jacknell Street and west to St Augustine St and north toward Davitt's Quay area. Areas around Quay Lane were developed in the mid 18th century. An early nineteenth-century urban planning project initiated by the Duke of Devonshire centred on Grattan (originally Market) Square and the streets adjoining streets such as St Mary's Street, O' Connell Street ,Parnell Street and T.F Meagher Street Devonshire bridge and the Causeway were constructed.

Summary of special character

Dungarvan has a strong and distinctive architectural character spanning many centuries. This heritage is a physical reminder of the culture, ideals and history of previous generations.

The Castle and the adjoining quays signify the importance of the town as an important medieval port and walled town which later developed into a major market town. The Castle was built c.1209 to safeguard the entrance to Dungarvan Harbour. The polygonal shell keep, a rare building type in Ireland, is the earliest structure on the site. It was used by the British Army and the Royal Irish Constabulary until 1922. During the Irish Civil War Dungarvan Castle was destroyed by the Anti-Treaty IRA. It was subsequently refurbished and served as the Headquarters of the local Garda Síochana.The medieval core of the town is evident in the street pattern and the area around the Castle and Church Street. The remains of a church mentioned in the 13th century are evident in St Marys. Elements of late medieval have been found within buildings in Church Street and Garvan's Church is a medieval town house. The remains of the early 17th century building which was previously a town hall are thought to be within the fabric of the present Market House Arts Centre.

It has been noted that while most Irish towns expanded randomly, Dungarvan was developed in accordance with enlightened ideals of the late Georgian period. The streetscape survives as one of the most ambitious and successful examples of formal town planning in Ireland. The axial layout of Michel Street, Grattan Square and Mary Street with its flanking side arteries of O' Connell Street and Main Street indicate classical

town planning. This is predominately the result of the rebuilding and expansion of the town, an urban planning project initiated by the Duke of Devonshire. The majority of the buildings on the core streets consists of rendered terraced three storey buildings dating from the early 19th century onwards and have or had commercial use on the ground floor. Many of the buildings have robust moulded render surrounds around the windows and shop fronts Another feature of the streetscape are the carriage arches which access the rear yards and which still have small courtyards within their long curtilage plots to the rear, some with outbuildings which historically had commercial uses

The town centre is characterised by simplicity and a unity of scale construction, materials and detailing. The building stock is formed by the mainly two and three storey terraced buildings with some historic low four storey buildings. Another noticeable characteristic in the town is the ironwork which is evident in buildings such as St Mary's Church railings and gates, the Bandstand in the Park, window cill guards and the bollards on the quays. The terraces of 19th century houses in the town and Abbeyside, the layout of the town square and quays contribute significantly to the special character of the Town.

The civic character of Meagher Street with the Courthouse and Banks and the wide streets of the formal town contrasting with the narrow laneways associated with the medieval town. Landmark buildings in the town include the Castle, Abbeyside Church, both the Catholic and Church of Ireland St Mary's Churches and public buildings such as the Court House and the Town Hall. The architectural character of the harbour area adds to the vibrancy of the area Public realm includes Walton Park and the Town Park nears the Lookout.
The setting of the town contributes to the vista and setting of the planned townscape. The nearby hills form a constant link between the surrounding landscape and the town especially from St Marys Church down Mary Street down towards the Square and onwards towards Devonshire Bridge Dungarvan has a distinctive 19th century character with Grattan Square (originally Market Square) providing the commercial and retail focus.

With landmark buildings, the vista and approach are very important visual elements, which affect the harmony of the setting. Within Dungarvan such vistas include:-

- The approach to/from Grattan Square from Devonshire Bridge and Mary St (and to a lesser extent from O' Connell Street and Parnell Street);
- The view from Abbeyside towards the Castle and the Quays;
- The view towards Abbeyside from the Quays; and
- The view towards Market House from the Square.

All these factors combine to contribute to a well defined urban space, rich in historical architecture and archaeology and make Dungarvan a town with a unique character. It is considered that the ACA of Dungarvan is of historic, social, archaeological and architectural merit.

Location and Boundary of ACA

The boundaries of ACA have been extended to encompass Abbeyside and the areas around the Park and St Marys to include the views and vistas on the approach road into the town which contribute to its setting.

Development Management Standards based on the assessment of special character of Dungarvan

In conjunction with general development management guidelines, The Planning Authority will require development proposals to retain these particular features of architectural merit and avoid interference or their removal; as such works would be deemed detrimental to the character of the ACA.

Walls	The majority of the historic buildings within the Architectural Conservation Area of Dungarvan have a rendered finish. Many of the buildings have robust plaster work detailing around the window and door opes. These original historic external finishes should be retained. Where historically the finish is ashlar stone or red brick, the council would not be favourably disposed to the plastering/rendering of the external wall or the installation of external cladding which can obscure moulded plasterwork features such as shop signage.
Roofs	The roofscape of the historic core of Dungarvan is part of its special character in particular the projecting stone eaves. Historic roofs were mainly pitched slate roofs, usually using Bangor Blue slates some which are very large and fixed in diminishing courses. Original elements and profiles should be retained and repaired and reused rather than replaced. The removal of original roof and roofing material such as natural slate, stone eaves, paraging, clay ridge tiles, existing chimney-stacks, early terracotta or clay pots other features of the roofscape such as cast-iron gutters and down-pipes is not considered acceptable / not permissible by the Planning Authority.
Doors, Windows	The traditional window types in Dungarvan are timber single sliding sash, multipaned windows, Historic sliding sash timber windows are to be retained and repaired according to best practice as per the advice series of guidance published by the Department of Housing, Local Government and Heritage. With proposed replacement of uPVC windows, the Planning Authority would encourage owners to consider a more appropriate window material and glazing pattern which would be consistent with the character of the ACA.

	Many doorways of middle sized houses have fanlight features are features to be retained and repaired according to best practice as per Dept of AHG advice series.
Shopfront	Original and traditional shopfronts should be retained or repaired according to best practice as per Dept of HLG and H advice series
Carriage archways	Carriage arch openings are a feature of the streetscape in Dungarvan especially along St Marys Street, Parnell Street and O' Connell Street. These openings should be retained with planning permission required for alterations.
Long Garden Plots or Curitlages.	Many of the buildings within the historic core have long garden plots or curitlages. New development within these sites should retain the predominance of the main building on the site and should respect the pattern of the historic urban grain and reuse any other structures on site
Streetscape	Around Grattan Square and some of the surrounding streets there are access/ windows opening at street level, from the public footpath to a basement. These areas are usually covered by a grill. These are to be retained as they are part of the character of the building and streetscape invaluable for the ventilation of a building.
Ironwork	Dungarvan also has some fine ironwork, in the form of railings such as those at St Mary's, gates, the Bandstand in the Park, window cill guards and bollards on the quays. Original iron works elements shall be retained and repaired and not removed.
Council services	Where opportunities arise, the Council will to seek the placing underground of all electricity, telephone and television cables within this Architectural Conservation Area. The Council will take note of existing shopfronts, cut stone steps when doing works to footpaths so that there is no damage caused to elements of the shopfronts such as the base of pilasters etc

Waterford City Trinity within ACA

Architectural Character:

The ACA is set on the north-eastern edge of promontory where the Suir once met the confluence of John's Pill (now The Mall). This area would have been where the Viking *longphort* was founded. This would have been the lowest point of the landscape. Later Dundory Fort, which adjoined and included Reginald's Tower, was built in this area providing us with the Viking Core of the City. This section of the Trinity Within ACA is the oldest continuously-populated urban area in Ireland. Therefore, the area is of particular Historical and Archaeological significance and falls wholly within the City's Zone of Archaeological Potential. Archaeological excavations within this locality have revealed a wealth of artefacts and architectural features dating back to the Viking and Medieval periods. The name of the ACA is generated from its location in the Parish of Trinity Within. The ACA has a high visual and social amenity value, affording views along the River Suir and good quality open space in the form of the William Vincent Wallace Plaza. This part of Waterford city has a quite diverse architectural character, with each sector being quite distinct from the other. There is also a variety of building types within the ACA – from Norman Towers, Medieval Town Walls, post-medieval window openings, fine Georgian churches and ecclesiastical residences to 18th and 19th century terraced houses and warehouses. The majority of the

buildings are of rubble-stone construction, painted and rendered; however, some such as the fine Georgian townhouses on The Mall, have brick facades. This lends a distinctive texture to the streetscapes that is unique to Waterford City. It is considered that City Trinity within ACA is of historic, social, archaeological and architectural merit.

Waterford City South Quays ACA

Architectural Character:

The South Quays ACA forms an impressive façade to the ancient city of Waterford, overlooking the Suir River. The Quays present an unbroken line of tall buildings ranged like brightly-coloured soldiers along the river-side – the vibrant hues reflected in the water on sunny days. Fronting this impressive urban landscape is the quayside and campshire, along with its modern marina and vestiges of the city's maritime past, including a striking crane on Custom House Quay. A footpath runs along the river's edge interspersed with young trees, not yet developed enough to interrupt views of the ACA from Rice Bridge and Ferrybank on the northern side of the Suir. Like the *Trinity Within ACA*, the *South Quay ACA* is also of particular archaeological interest as much of the area falls within the City's Zone of Archaeological Potential. The area east of Gladstone Street which was originally contained within the Viking and Norman walled city. The Quays were formed c.1705 by the removal of large sections of walls of the City Walls adjoining the River Suir. The Quays are particularly significant to Waterford city, as they formed the hub of the City's prosperity and impetus for development. They were also the region's link with the wider world and from where many emigrants left Ireland for a new life in North America.

The majority of the buildings on the South Quays are two-three bays in width and average 3-4 storeys in height. These are primarily late18th and 19th century structures replacing earlier buildings on the sites, in particular gable-fronted "Dutch Billies". Elements late medieval buildings have been found in the fabric of ostensibly later buildings. The buildings follow a standard design format; shopfronts to the ground floor, some with separate entrances to the upper floors and carriage arches leading to the rear sites; painted rendered upper floors, the window heights diminishing in the higher storeys in line with Classical proportions, and the steep roofs partially concealed by parapet walls. The 18th century and earlier 19th century buildings tend to have unadorned upper floors, with decorative rendered details common in later 19th century structures.

Most of the buildings within the ACA were probably built as mixed-use living-over the- shop structures, with a number having offices or residences to the upper floors.. There are three large hotels, *The Bridge Hotel*, *The Dooley's Hotel* on Merchant's Quay and *The Granville Hotel* on Meagher's Quay. Although made up of a number of originally separate buildings, the establishments have opted to visually unify their premises through strong paint schemes and shopfronts extending the length of the ground floor. The purpose-built commercial buildings, in

particular the banks and the Post Office (former Customs House) have a distinctly different character as are generally faced in stone, giving an air of stability and longevity. The most identifiable structure within the ACA is the Clock Tower, built in 1861, in the Gothic Revival idiom, and a landmark on the riverfront. It is considered that the South Quays ACA is of historic, social, archaeological and architectural merit.

Appendix 11
Natural Heritage Assets

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 - 2028

Appendix 11 Natural Heritage Assets

Table A11.1 Waterford Wetlands of Biodiversity Importance

WDWS Site Code	WDWS Site Name	Centre Easting	Centre Northing
WD01	KILBEG	201000	89690
WD27	BALLYSCANLAN LOUGH	254000	103000
WD28	KNOCKADERRY RESERVOIR	249700	106200
WD29	DUNHILL INTEGRATED CONSTRUCTED WETLAND	250722	101860
WD30	KILMALOO LOUGH	212597	81745
WD31	DUFFCARRICK	219500	78500
WD32	MONANEEA LAKE	221773	84419
WD33	CAPPAGH LAKES	218000	89600
WD34	DEELISH RESERVOIR	222800	89800
WD35	CLONEA STRAND MARSHES	231000	94200
WD36	BALLYSHUNNOCK RESERVOIR	245450	109663
WD37	CLONCOSKORAN	230000	95300
WD38	BALLINKINA	266000	107200
WD47	BALLYDERMODYBOG	252499	102514
WD50	LITTLE ISLAND GOLF COURSE - LITTLE ISLAND	264963	111740
WD51	FAITHLEGG GOLF COURSE PONDS	266880	112401
WD52	WILLIAMSTOWN GOLF COURSE PONDS	262349	109251
WD53	BALLINAMONA LAKE	261321	107479
WD54	CALLAGHANE FEN	264871	106284
WD55	COOLTEGIN WET WOODLAND	268833	106103
WD56	CALLAGHANE KNOCKHOUSE FEN	265589	105733
WD57	ORCHARDSTOWN BALLYLOUGHBEG FEN	264657	104683
WD58	KEILOGE WETLAND	263705	105061
WD59	LEPERSTOWN WETLAND	265356	101497
WD60	BENVOY WETLAND	248107	99622
WD61	MONAKIRKA	239290	98839
WD62	BALLYVOONY WETLAND	237864	97741
WD63	DRUMLOHAN CARRICKAHILLA WETLAND	236970	100937
WD64	CASTLEQUARTER WETLAND	233419	97791
WD65	SHANBALLY KILLINEEN EAST	230616	97721
WD66	GORTAVICKERY	231999	100175
WD67	BALLINGOWAN	233745	99321
WD68	KNOCKYELAN EAST	232744	101099
WD69	BELLAHEEN	231738	101074
WD70	CURRAHEEN	231225	100986
WD71	GORTNALAGHT	233082	103135
WD72	GARRANTURTON	238707	102146
WD73	ASHTOWN POND	236887	108963
WD74	RATHMAIDEN FALLAGH	240382	108917
WD75	ROBERTSTOWN WEST	242225	109701
WD76	ROBERTSTOWN EAST	243019	109864
WD77	ROSS POND	245691	108683
WD78	COOLAGADDEN	249427	108427
WD79	AEDEENLOUN EAST	246922	107689
WD80	BALLYGARRAN SOUTH	247275	106861
WD81	GREENAN QUARRY	245191	108085
WD82	GEORGESTOWN	243018	103948
WD83	RATHANNY	244973	104572
WD84	CRINALISK	247870	104197

WDWS Site Code	WDWS Site Name	Centre Easting	Centre Northing
WD85	CARRICKPHILIP	247332	106046
WD86	KILLONE PONDS	251861	104812
WD87	LOUGHDEHEEN FEN	251686	105414
WD88	BALLYCRADDOCK KILLONE WETLAND	251107	105240
WD89	BALLYLENANE	248994	103516
WD90	BALLYLEEN FARM POND	248589	103016
WD91	GARDENMORRIS PONDS	244848	102602
WD92	FARRANALAHESERY POND	243788	103295
WD93	BALLYLANEEN	240536	101066
WD94	CARRIGCASTLE	241163	101489
WD95	KILBARRYMEADEN	245987	101206
WD96	KILCANNON PONDS	249418	100856
WD97	STONEHOUSE WETLAND	251358	112426
WD98	GORTACLADE STONEHOUSE LAKE	250852	111767
WD99	MOUNTCONGREVE POND	253877	110178
WD100	BLACKKNOCK POND	251175	108308
WD102	BALLYKINSELLA	260211	105944
WD103	POWERSKNOCK POND	252059	107934
WD104	RAHEENS POND	251967	107098
WD105	MATTHEWSTOWN NORTH PONDS	253345	102946
WD106	BALLYNAGEERAGH POND	250193	103093
WD107	SHANACLONE SOUTH POND	250312	103241
WD108	SHANACLONE NORTH POND	250561	103696
WD109	CROUGH PONDS	251092	103667
WD110	KILCANNON WET WOODLAND - ANNESTOWN STREAM	250084	100247
WD111	TRAMORE EAST (LAKELANDS)	258536	101358
WD112	TRAMORE GOLF COURSE POND	256086	101299
WD114	CARRICK ON SUIR GOLF COURSE POND	240137	120433
WD115	CARRICKBEG	240534	120452
WD116	GURTEEN LOWER PONDS	228000	123139
WD117	NORTH COMERAGH MOUNTAINS	220869	119992
WD118	BALLYVADD	243889	110411
WD119	GORTACLADE NEWTOWN	250817	110579
WD120	GLENHOUSE LAKE	248025	113194
WD121	CURRAGHMORE CASTLE LAKE	243574	115402
WD122	MAYFIELD OR ROCKETSCASTLE LAKE	247559	117174
WD124	CURRAGHDUFF	239041	118419
WD125	LOUGH MOHIA	228546	116135
WD126	MOANYARHA BOG	226067	117219
WD128	GRAIGNAGOWER	220798	112616
WD129	KNOCKALASSA HEATHLAND	192426	103767
WD130	LABBANACALLEE HEATHLAND	193953	103397
WD131	KILBEG LOWER	201537	89644
WD132	KILCOCKAN WETLAND	207564	86644
WD133	COOLBEGGAN EAST WETLAND	207062	87785
WD134	GLENNAGLOGH WETLAND	200817	87862
WD135	BALNATRAY WEST COMMONS	202971	85645
WD136	BALNATRAY EAST COMMONS	205103	85198
WD137	BALLYCONDON COMMONS	204445	85370
WD138	HARROWHILL	206662	85943
WD139	GLENASSY OR COONEEN	210636	88502

WDWS Site Code	WDWS Site Name	Centre Easting	Centre Northing
WD140	SHANAKILL	211910	88767
WD141	MOUNTSTEWART	216191	89649
WD142	RATHNAMENEENAGH	227722	86767
WD143	BALLINDRUMMA	214942	86769
WD144	BALLYCURREEN SOUTH	227988	84135
WD145	BALLYNAMONA LOWER	227841	83532
WD146	FARRANALOUNTY NORTH	225393	83754
WD147	FARRANALOUNTY SOUTH	225696	83590
WD148	GLENWILLIAM	220712	83498
WD149	GARRANANASPICK SHANACOOLE WETLAND	212512	81073
WD150	BALLYDUFF MORE FARM PONDS	221208	93946
WD151	KNOCKNAGRANNA GOLF COURSE PONDS	228177	95198
WD152	DUCKSPOOL	227846	94068
WD153	LACKAN SOUTH	227599	95898
WD154	BALLYMACMAGUE EAST WETLAND	222967	94756
WD155	BALLINTOOR DEELISH LAKE	228187	97192
WD156	KILNAFREHAN MOUNTAIN	227153	99107
WD157	KNOCKAUNAGLOON	224910	99370
WD158	TOURIN DEMESNE POND	210008	96786
WD159	SLUGGARA FARM POND	212143	97961
WD160	CAPPAGH LAKE WEST	218258	96589
WD161	CAPPAGH LAKES EAST	219170	96367
WD162	BALLYNAMINTRA UPPER LAKE	218752	96277
WD163	KILGREANY QUARRY POND	217801	94824
WD164	DROMANA LAKE	210573	94855
WD165	KILLAHALY WEST LAKES	208142	95468
WD166	BOHADOON SOUTH WET WOODLAND	222988	100260
WD167	CURRAGHNAMADDREE	221198	100297
WD168	KNOCKAUNNAGLOKEE	219865	101113
WD169	LACKANDARRA UPPER	221438	103574
WD170	TINALIRA	220238	103329
WD171	LACKANDARRA	222501	103520
WD172	DRUMGOREY WETLAND	218679	109389
WD173	LISLEAGH MOUNTAIN WETLAND	216104	105313
WD174	MOUNTMELARY PONDS	209729	104038
WD176	KNOCKADAV WETLAND	200616	105073
WD177	MONAMAN UPPER	206197	100583
WD179	RATHMAIDEN WEST	239259	108617
WD180	CARRIGEEN QUARRY LAKE	241193	109448
WD182	CURRAGHTAGGART LAKE	242359	112287
WD183	COOLFIN POND	247706	114161
WD184	MONEA LAKE	217788	78784
WD185	CROSSFORD FARM POND	216151	79115
WD186	RATH FARM POND	213428	79567
WD192	BALLMACARBRY WOODLAND	218689	113996
WD193	GARDENMORRIS WOODLAND	244056	102511
WD195	BLACKKNOCK WET WOODLAND	250993	108469
WD196	COLLIGAN RIVER	222085	98298
WD200	TOBERNAHULLA	190554	100894
WD201	MEOUL	210923	107616
WD203	MILLERSTOWN	234147	100498

WDWS Site Code	WDWS Site Name	Centre Easting	Centre Northing
WD204	LAG BRIDGE	222010	106799
WD206	BALLYNAGORKAGH PONDS	249723	100028
WD207	BALLYHEADON PONDS	249443	100240
WD208	ANNESTOWN WETLANDS	249779	98963
WD209	BALLINKINA EAST	266665	106780
WD210	BALLINASPICK SOUTH	203380	93771
WD211	BALLYDURN	242176	111929
WD213	BALLYMOAT	253343	105663
WD214	BALLYNAGIGLA NORTH	243711	100537
WD215	BALLYNAGIGLA SOUTH	243996	99193
WD216	BALLYNASISSALA	242707	100050
WD220	BALYVOREEN	265825	108340
WD221	BLACKBOG	212074	79327
WD222	BOHADOON MOUNTAIN	224716	100831
WD223	BOOLAVONTEEN	219239	107180
WD224	CAMPHIRE NORTH	209160	93445
WD227	CASTLEREAGH	221199	110923
WD229	COOLBAGH	212101	86958
WD230	COOLNASMEAR MOUNTAIN	225606	100469
WD231	COUMARAGLIN MOUNTAIN	227014	102213
WD232	CURRAGHACNAV	198495	102067
WD235	DEERPARKHILL	206142	96122
WD237	DUNMOON (NORTH)	204577	89644
WD238	DUNMOON (SOUTH)	204701	88786
WD239	DYRICK	215363	105438
WD241	GLENAWILLIN	203885	93466
WD242	GLENCULLEN	193944	105107
WD243	GRAIGNAGOWER SOUTH	220787	112615
WD245	KILBARRYMEADEN EAST	246373	102109
WD246	KILBARRYMEADEN WEST	245951	102198
WD247	COOLBEGGAN EAST	207841	88246
WD248	KILCANAVEE	239426	110754
WD249	KILCARTON	253332	103465
WD250	KILLADANGAN	223964	95951
WD251	KILLAWLAN	269098	102355
WD252	KILNAFREHAN WEST	225857	97619
WD253	KILSTEAGUE	247168	101104
WD255	KNOCKADULLANE EAST	197897	103854
WD256	KNOCKANISKA WEST	191782	101829
WD257	KNOCKARAHA	219173	108962
WD258	KNOCKAVANNIA	224113	111386
WD259	KNOCKCORRAGH	195436	104081
WD260	KNOCKNANASK	211638	106884
WD261	KNOCKYELAN	232474	101494
WD262	LACKANDARRA LOWER	221695	103023
WD263	LAFONE	197796	103293
WD264	LISSELAN	261262	103285
WD265	LYRENACALLEE EAST	207749	101689
WD266	LYRENACALLEE WEST	207277	101618
WD273	PROPOGE	205103	86692
WD274	GARRANTURTON	237685	101923
WD275	REANACOOLAGH WEST	198174	103794

WDWS Site Code	WDWS Site Name	Centre Easting	Centre Northing
WD280	KILCOONEY	219960	103853
WD281	TINNASCART	211929	88721
WD282	TOBER	196808	96839
WD283	WHITFIELD	253507	108253
WD284	WOODHOUSE	213947	91444
WD285	WOODSTOWN LOWER	269671	105833
WD288	BAWNARD / DERRINLAUR WETLAND	225645	122783
WD291	GRACEDIEU GRASSLAND	258132	114096
WD292	COADY'S POND	259025	112971
WD293	JOHN'S RIVER	261139	111989
WD295	LITTLE ISLAND	264603	111352
WD299	KILMACLEAGUE CREATED WETLAND	262679	101732
WD300	LISSELAN INTAKE	260720	102748

Table A11.2 Schedule of Amenity Trees

ID	Location
1.	Trees in the grounds of Butlerstown House
2.	Trees at Gracedieu West
3.	Trees North of Gracedieu House
4.	Trees at Gracedieu East, south of the railway line
5.	Trees in the grounds of the Mercy Convent
6.	Trees in the grounds of Tycor House
7.	Trees at Bilberry Rock
8.	Trees in the townland of Ballybeg west of the Green Road
9.	Trees in the grounds of the former Waterford Crystal Factory, Cork Road
10.	Trees in the grounds of the Presentation Convent, Slievekeale Rd
11.	Trees in the grounds of the Good Sheppard campus of S.E.T.U.
12.	Trees in the grounds of Kingsmeadow House
13.	Trees in the grounds of Abbey Church, Ferrybank
14.	Trees in the grounds of Rocklands, Ferrybank
15.	Trees in the grounds of Sion Hill House, Ferrybank
16.	Trees in the grounds of Mount Misery, Ferrybank
17.	Trees at Bishopsgrove, Ferrybank
18.	Trees at Rockenham House, Ferrybank
19.	Trees in the grounds of the Courthouse
20.	Trees in the grounds of the Peoples Park
21.	Trees at Rockville, Newtown
22.	Trees in the grounds of Newtown School
23.	Trees at Fairyhill, Newtown
24.	Trees at Annaville, Newtown
25.	Trees at Chatsfort, Newtown
26.	Trees at Holmacre, Newtown
27.	Trees at Weston, Newtown
28.	Trees at Cove Lodge, Newtown
29.	Trees at Ballycar, Newtown
30.	Trees in the grounds of the former Glanbia Plant in Glenville
31.	Trees on the River Suir bank at Glenville
32.	Trees in the grounds of Maypark Nursing Home
33.	Trees in the grounds of University Hospital Waterford
34.	Trees at Cherrymount
35.	Trees in the grounds of St. Johns College
36.	Trees in the grounds of the Ursuline Convent, Ballytruckle
37.	Trees in the grounds of St. Otterans Hospital
38.	Trees in Riverwoods Estate
39.	Trees in the grounds of Oaklands, Ballinakill
40.	Trees at Granstown House, Earlscourt
41.	Trees in Kings Channel Estate
42.	Trees at Oak Villa, Military Road
43.	Trees at St. Thomas's Church
44.	Trees at Ballinakill Downs and the adjoining lands to the north
45.	Trees north of the Dunmore Road, adjacent to Riverside Cottage Restaurant
46.	Trees to the north of Knockboy Cottage
47.	Trees on the River Suir bank east of Kings Channel

ID	Location
48.	Trees on the River Suir bank north of Blenheim
49.	Trees in the vicinity of Blenheim Lodge
50.	Trees adjacent to Halfway House Bridge
51.	Trees on Little Island
52.	Trees in Leoville Estate, Dunmore Road
53.	Trees in Prospect Mews, Ballytruckle
54.	Trees in the grounds of Grace Dieu House, Ballindud
55.	Trees in the grounds of Ballindud House
56.	Trees at Ballinakill House
57.	Trees at Ballycanvan
58.	Trees at Wooodland Pill
59.	Trees at Knockboy beside Dunmore Ave
60.	Trees at Killure Grove
61.	Trees at Mount Druid
62.	Trees at Faithlegg
63.	Trees at Brook Lodge
64.	Trees in the grounds of De La Salle School

Table A11.3 Tree Preservation Orders in Waterford County & City

Number	File No	Location
1.	15/71	Dooneen and Powersknock
2.	77/72	Woodhouse, Sheskin-Knockadrumlea
3.	347/72	Curraghmore Estate, Guilcagh Portlaw
4.	439/72	Deerpark, Ballymacarbry
5.	440/72	Ballymabin (Group)
6.	545/72	Ballyglan & Knockaveelish
7.	408/76	Ladies Cove, Dunmore East
8.	76/80	South East Fishermans Co-op, Passage East
9.	235/81	Kilmaloo West
10.	236/81	Rincrew
11.	473/82	Ballygally West and Glenbeg
12.	710/82	Kilbree East
13.	455/83	Ballyglan
14.	468/83	Coolgower
15.	599/83	Dromina
16.	14/85	Kilmanahan
17.	01/08	Christendom
18.	271/76	Glenville
19.	01/85	Ballindud
20.	* To be progressed under Section 205 of the Planning and Development Act, 2000 (As Amended) during the lifetime of the Plan	Corbally, Tramore
21.	* To be progressed under Section 205 of the Planning and Development Act, 2000 (As Amended) during the lifetime of the Plan	Pickardstown, Tramore
22.	* To be progressed under Section 205 of the Planning and Development Act, 2000 (As Amended) during the lifetime of the Plan	Cove, Tramore

Table A11.4 Geological Heritage Sites in Waterford

ID	Name of site	Type of Site
1	Ardmore Mine	Economic Geology
2	Ardoginna	Coastal Geomorphology and Devonian
3	Ballymacart River	Fluvial and Lacustrine Geomorphology
4	Ballynacourty	Lower Carboniferous
5	Ballynahemery Cave	Karst
6	Ballynameelagh Caves	Karst
7	Ballynamintra Cave	Karst
8	Ballynamuck Boreholes	Hydrogeology
9	Ballyquin Shore (north side of Ardmore Bay)	Quaternary Devonian, Lower Carboniferous
10	Bewley Caves	Karst
11	Blackwater Bend	Fluvial and Lacustrine Geomorphology
12	Bridgequarter Cave	Karst
13	Cappagh Quarry	Karst & Lower Carboniferous
14	Carrigmurrish Cave	Karst
15	Clonea Strand	Lower Carboniferous
16	Coumfea/Coumalocha	Quaternary
17	Coumiarthar	Quaternary
18	Coumshingaun	Quaternary
19	Coumtay	Quaternary
20	Crotty's Lough Corrie	Quaternary
21	Mahon Falls	Quaternary & Fluvial and Lacustrine Geomorphology
22	Sgilloge Loughs Corrie	Quaternary
23	Comeragh volcanics	Devonian
24	Croughaun Hill	Cambrian to Silurian Devonian
25	Drumslig	Economic Geology
26	Dungarvan Harbour	Coastal Geomorphology
27	Dunhill Quarry	Cambrian- Silurian
28	Fenor Bog	Hydrogeology
29	Kilgreany Cave	Karst
30	Knockalahara Sink	Karst
31	Knockmealdown gullies	Fluvial and Lacustrine Geomorphology
32	N25 New road cuttings Kilmeadan	Cambrian- Silurian
33	Newtown	Quaternary
34	Oonagaloor and Brothers Cave	Karst
35	Quillia	Precambrian to Devonian Palaeontology
36	Raheen Shore	Precambrian to Devonian Palaeontology Cambrian to Silurian
37	Rathmoylan Cove	Devonian Coastal Geomorphology
38	Ross Slate Quarry	Economic Geology Cambrian Silurian
39	Shandon Railway Cutting Cave	Karst
40	Sluggera Crossroads	Karst
41	St Declan's Stone	Quaternary

ID	Name of site	Type of Site
42	The Copper Coast - Ballydowane Bay	Cambrian- Silurian Mineralogy Devonian
43	The Copper Coast - Bunmahon Head	Cambrian- Silurian & Devonoan
44	The Copper Coast - Dunabrattin Head	Cambrian- Silurian Coastal Geomorphology
45	The Copper Coast - Garrarus Strand	Cambrian- Silurian Quaternary
46	The Copper Coast - Kilfarrasy Strand	Cambrian- Silurian Coastal Geomorphology
47	The Copper Coast - Kilmurrin Cove	Coastal Geomorphology
48	The Copper Coast- Knockmahon and Stage Cove	Cambrian- Silurian
49	The Copper Coast - Stradbally Cove	Cambrian- Silurian
50	The Copper Coast - Tankardstown	Mineralogy
51	Tramore	Precambrian to Devonian Palaeontology
52	Tramore Burrow	Coastal Geomorphology
53	Whiting Bay- Goat Island	Lower Carboniferous Quaternary Economic Geology
54	Comeraghs Overview	Quaternary
55	Copper Coast Overview	Cambrian, Silurian, Mineralogy and Coastal Geomorphology

Table A11.5 Blue Green Infrastructure in Waterford City

Site	Green Infrastructure Value
The People's Park	Health & Well Being Biodiversity
Glenville-Maypark-Ballynakill Walkway	Biodiversity Health & Well Being
Kilbarry Nature Park	Biodiversity Health & Well Being
St. John's River Walkway	Health & Well Being Biodiversity
Cumann na mBan Ring Road	Health & Well Being Biodiversity
Christendom	Biodiversity
Farronshoneen Lane	Health & Well Being Biodiversity
Knockboy Wetland	Biodiversity
Ballygunner Church Laneway to Dunmore Road	Biodiversity
Waterford Greenway	Health & Well Being
SETU Lands Carriganore	Biodiversity
Ballybeg Green	Amenity Potential for biodiversity enhancement.
Ballybricken Green	Amenity Potential for biodiversity enhancement
Graveyards St. Patrick's St. John's St. Otteran's Quaker Burial Ground Wyse Park Abbey Graveyard, Ferrybank	Contemplation
Sports Grounds Walsh Park Regional Sports Centre Waterpark De La Salle Williamstown Pitch and Putt Course	Health & Well Being
Kingsmeadow Green	Amenity Potential for biodiversity enhancement.
Woodlawn Grove/Clonard Park Green	Amenity Potential for biodiversity enhancement
Little Island	Biodiversity Health & Well Being
St. John's College Wood	Biodiversity
Oaklands	Biodiversity
Gracedieu Native Woodland Site	Biodiversity
Woodstown Viking Site	Biodiversity
King's Channel	Biodiversity
Ballinakill	Biodiversity
Killoteran Marsh	Biodiversity
Ballygunner Wetland	Biodiversity
Bilberry Rock	Biodiversity
Coady's Pond	Biodiversity
Kilbarry	Biodiversity
Newtown School	Health & Well Being
Waterford City Green Belt	Amenity

Waterford City Metropolitan Area

Blue Green Infrastructure Strategy

Appendix 11A of WCC Development Plan 2022 - 2028

Variation no. 1 August 2025

YELLOW SUB GEO

LUC

Kilkenny County Council
Comhairle Chontae Chill Chainnigh

Waterford City & County Council
Comhairle Cathrach & Contae Phort Láirge

Waterford City Metropolitan Area Blue Green Infrastructure Strategy

Version	Status	Prepared	Checked	Approved	Date
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PART 1:
THE STRATEGY

Chapter 1 Introduction to the Strategy

What is Blue and Green Infrastructure?

Blue and green infrastructure (BGI) refers to the network of green and blue spaces that surround and run through our towns and cities. It can include natural habits including woodland, wetlands and streams occurring in urban areas. Large green spaces like National Parks, formal parks and gardens, and farmed landscapes are also included, as well as private gardens, allotments, hedges, street trees, roadside green verges, or footpaths. However, BGI is not about individual assets – more important are the connections between those assets and the functions they provide.

Crucially, BGI should form a strategic, connected network of high-quality green spaces and other natural features. It should thread through and around the built environment and connect the urban area to its wider rural hinterland along blue-green corridors.

Unlike grey infrastructure, such as drainage pipes which have a single function, BGI can provide many functions. These include recreation, removing water pollution, reducing flood risk, providing homes for wildlife, providing flowers for bees and other pollinators, and helping to keep urban areas cool.

In today's policy environment, BGI is increasingly acknowledged as a 'must have' rather than a 'nice to have' to tackle local and global scale challenges, as it offers multiple economic, social and environmental benefits.

Why does Waterford MASP need a BGI Strategy?

Ireland's National Development Plan (NDP), adopted in 2018, is one of two key vehicles for the State's 'Ireland 2040' ambitions. It sets out how Ireland is at a critical stage in its development, with population set to grow by approximately 1 million people between 2016 and 2040. The NDP states that "the infrastructure and investment implications of that alone are enormous", with investment supporting the realisation of the country's climate ambitions and targets. Due to environmental crises such as biodiversity loss and climate change, blue-green infrastructure is becoming more important than ever to address the impacts of these crises within urban areas. This very much encompasses the need for investment in blue and green infrastructure.

Waterford MASP recognises the need to prioritise blue-green infrastructure in plans for development in line with Ireland's National Planning Framework (NPF), which identifies the importance of BGI. National Policy Objective 58 in particular relates to planning for BGI and ecosystem services when preparing statutory land use plans. This should enable the growth and expansion of BGI, encourage more collaborative approaches to plan making and ensure that well-planned green spaces are provided through plans.

In line with these wider national ambitions, the Waterford Metropolitan Area Strategic Plan (MASP) is set for significant change in the coming years. National Policy Objective 7 sets out a strategy to accelerate the development of Waterford by 50-60% by 2040. This is part of the 'Project Ireland 2040' ambitions to provide balanced regional development and reduce Dublin's growing economic domination. Due to this ambitious target, an approach to growth that balances the needs of people, nature and climate is crucial to success.

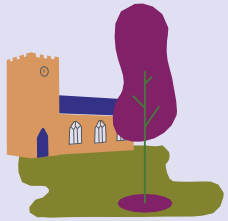
How does BGI add value?

BGI highlights the benefits that nature provides to people and can act as a way of balancing the needs of both people and nature through the creation, retention and linking of green and blue spaces. To incorporate this fully into the planning system, the approach which realises the value of 'ecosystem services' or 'nature's contribution to people' has enabled better understanding of the direct, indirect and economic benefits of investment into BGI. This point was reflected in conversations with key stakeholders engaged during this Strategy, who highlighted the need to powerfully articulate the economic case for BGI and to make sure that it is considered more than "SLOAP" ("space left over after planning").

The planning system is changing and whilst public sector resources and fragmented land ownership can make this challenging, there are levers within planning policy, healthcare research, climate policy and environmental research that demonstrate the benefits of delivering BGI.

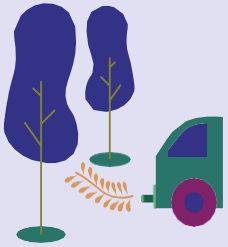
The benefits of BGI

Restoring nature habitats and increasing ecological connectivity



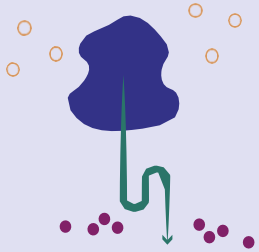
Aesthetic value and reinforcing sense / pride of place

Play, education and interaction with nature



Improving air quality and noise regulation

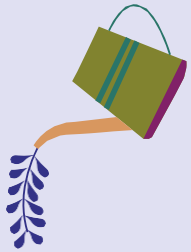
Benefits for biodiversity and improved ecological resilience of native species



Carbon sequestration and mitigating climate change

Active transport opportunities, such as walking and cycling

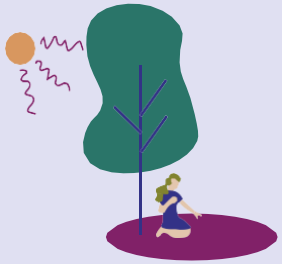
Reducing the risk of flooding and improving water quality



Opportunities for community growing

Increased economic activity and improved house prices

Opportunities for social interactions, community cohesion and improving physical and mental health



Urban cooling and enhanced efficiency of building climate systems

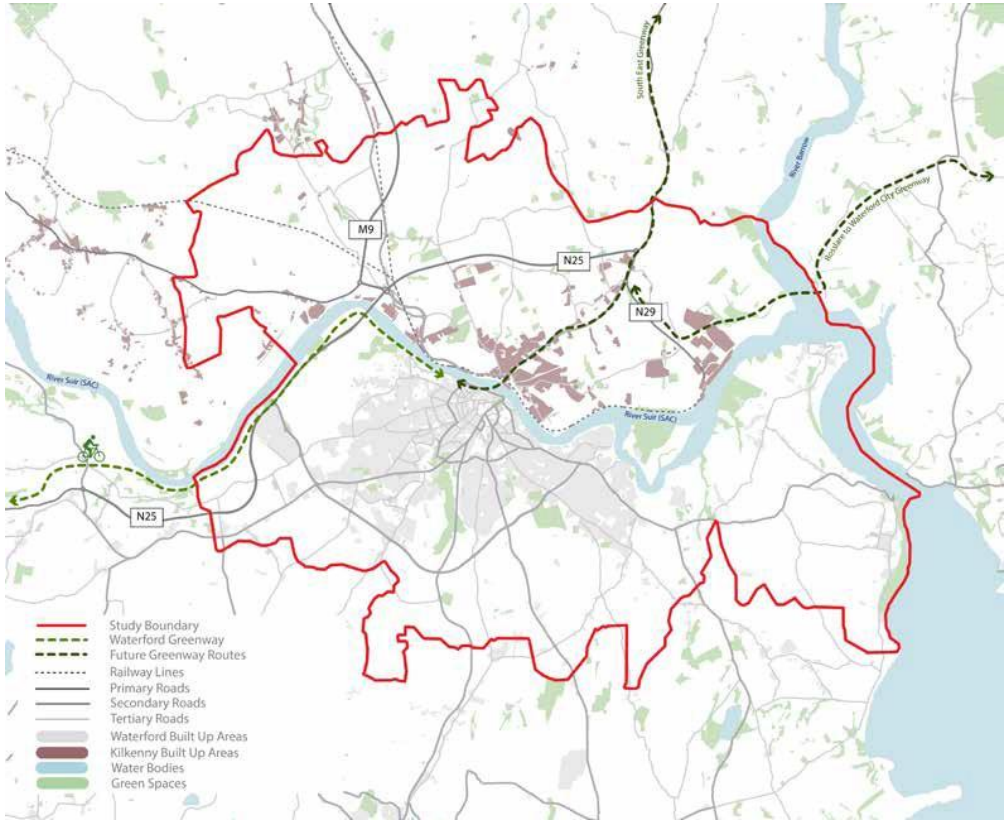
Which areas does this Strategy cover?

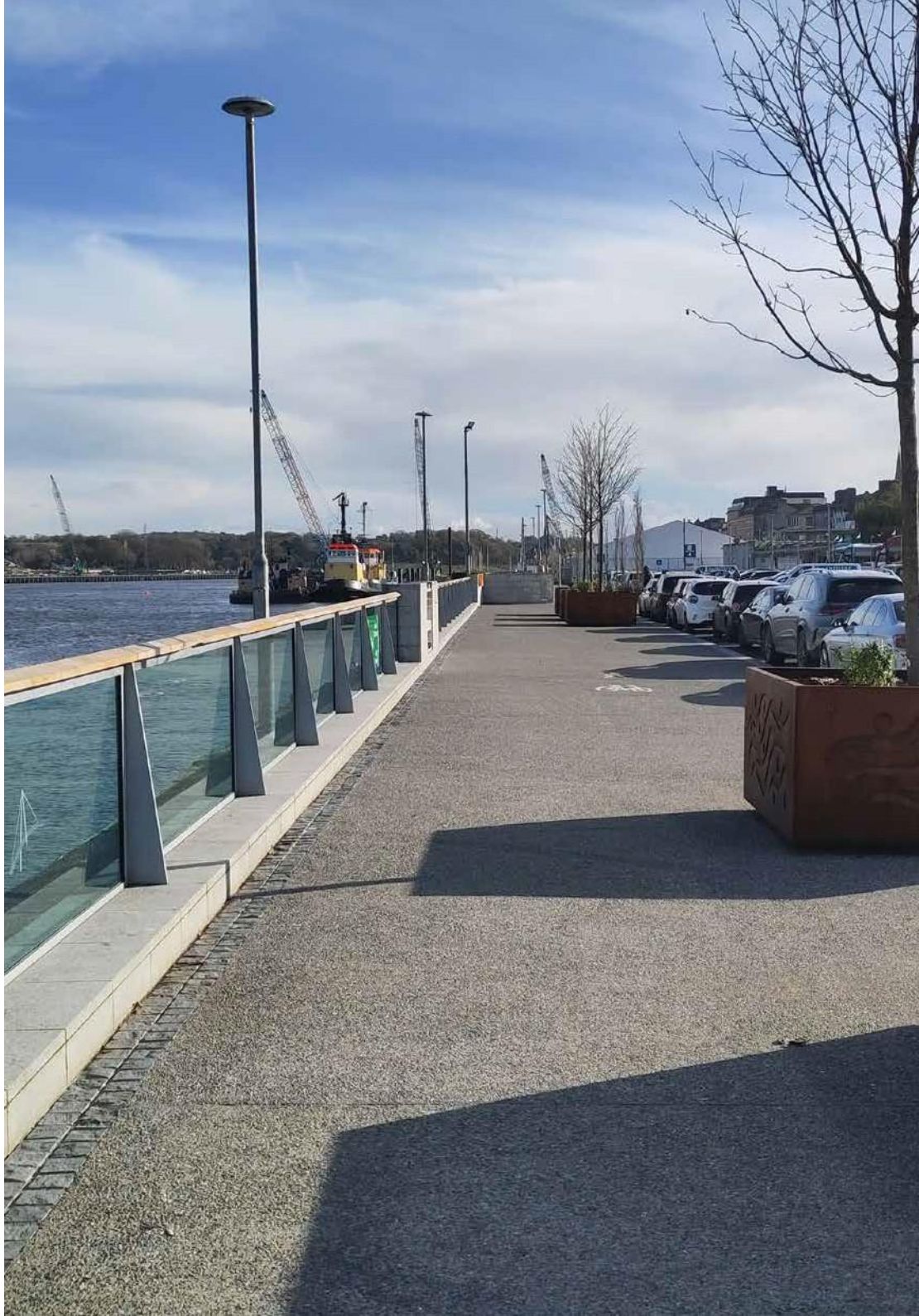
The study area for this Strategy is the Waterford Metropolitan Area. This is the plan area addressed by the MASP for Waterford, as designated in Ireland's National Policy Framework (NPF).

The MASPs are an essential component of the Regional Spatial and Economic Strategy for the Southern Region (RSES) and provide a framework for accelerated sustainable growth in each Metropolitan area and a mechanism to ensure coordination between local authorities.

The Waterford MASP area includes the urban area and surroundings of Waterford city, including constituent areas of both Waterford and Kilkenny Councils.

Spatial context





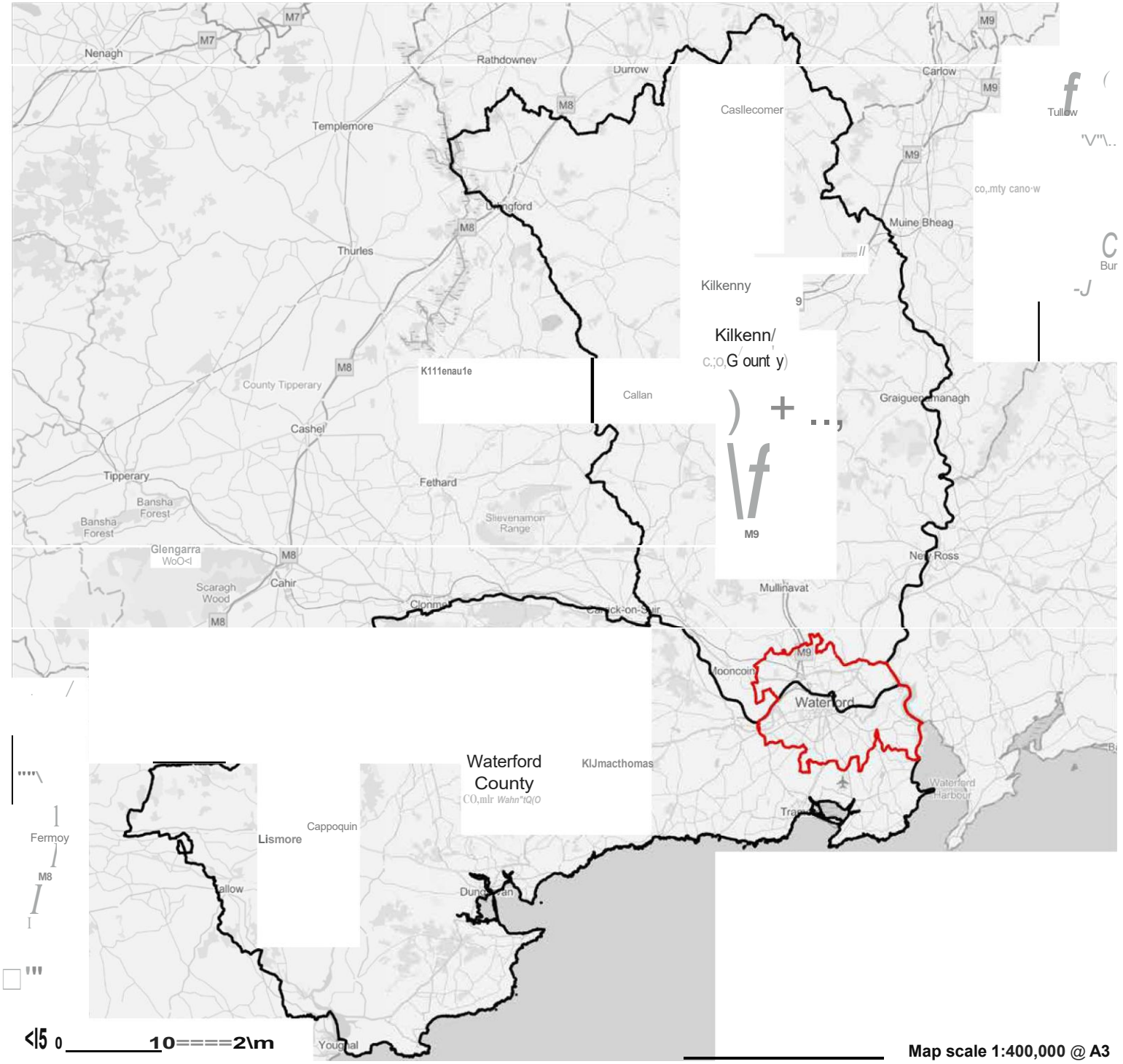


Figure 1.1: The location of the MASP study area

County boundary

Waterford MASP boundary

Map scale 1:400,000 @ A3

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Key terms

The following key terms are used throughout the document.

Green Infrastructure (GI)	The idea that natural features should be as carefully planned for, designed, and delivered as built infrastructure. The key concepts are that these should be connected and provide multifunctional benefits.
Blue & Green Infrastructure (BGI)	An extension to GI which also highlights 'blue' (or water-based) assets and functions, including water quality and flood and drought resilience.
Nature-based Solutions (NbS)	A similar concept to BGI, which focuses on how healthy ecosystems can address global challenges, including climate change, flooding, and air pollution amongst others.
Ecosystem Services (ES)	The benefits that nature provides people. These are generally split into four service groups: provisioning (e.g. timber), regulating (e.g. carbon storage), cultural (e.g. recreation) and supporting (e.g. photosynthesis).
Nature's Contribution to People	An alternative to ES to better incorporate a broader range of world views. In this strategy, ES is referred to more often as this is the terminology used in national policy. Our use of 'Ecosystem Services' is broad and includes all cultural, spiritual and other relational benefits. Find out more here.
Greening	Commonly used to refer to the shift from hard 'grey' infrastructure to more natural surfaces. Where this term is used within this strategy, it refers to creation of biodiverse healthy ecosystems.
Biodiversity Net Gain	An increase on the current No Net Loss policy which aims to increase biodiversity of land following development, and leave the natural environment in a better state than it was before.

Planning policy context for BGI in Waterford MASP

The Vision set out for the metropolitan area in the MASP is:

> "Waterford aims to be a dynamic, concentric, modern European city of scale and significance, a UNESCO Learning City, driving national and regional growth, prosperity, innovation and creativity which is supported by focussed investment in transformational rejuvenation across the Metropolitan Area, a vibrant and diverse University City with a high quality of life for all through a high standard physical and community infrastructure and housing options, education, amenities and opportunities for employment."

Policy objective 21 of the Waterford MASP calls for:

> "Investment in green infrastructure and green amenities to achieve international best practice and to invest in delivering parks, recreation and amenity strategy for the Waterford metropolitan area. This should include the identification of a location for a "Regional Scale Park" within the metropolitan area."

This ambitious anticipated growth means that there will be significant pressure on land across the study area. However this also presents an opportunity to embed a truly BGI-led delivery model for future waves of residential, commercial and community development.

With this in mind, the overarching objectives the Strategy sets out to achieve are:

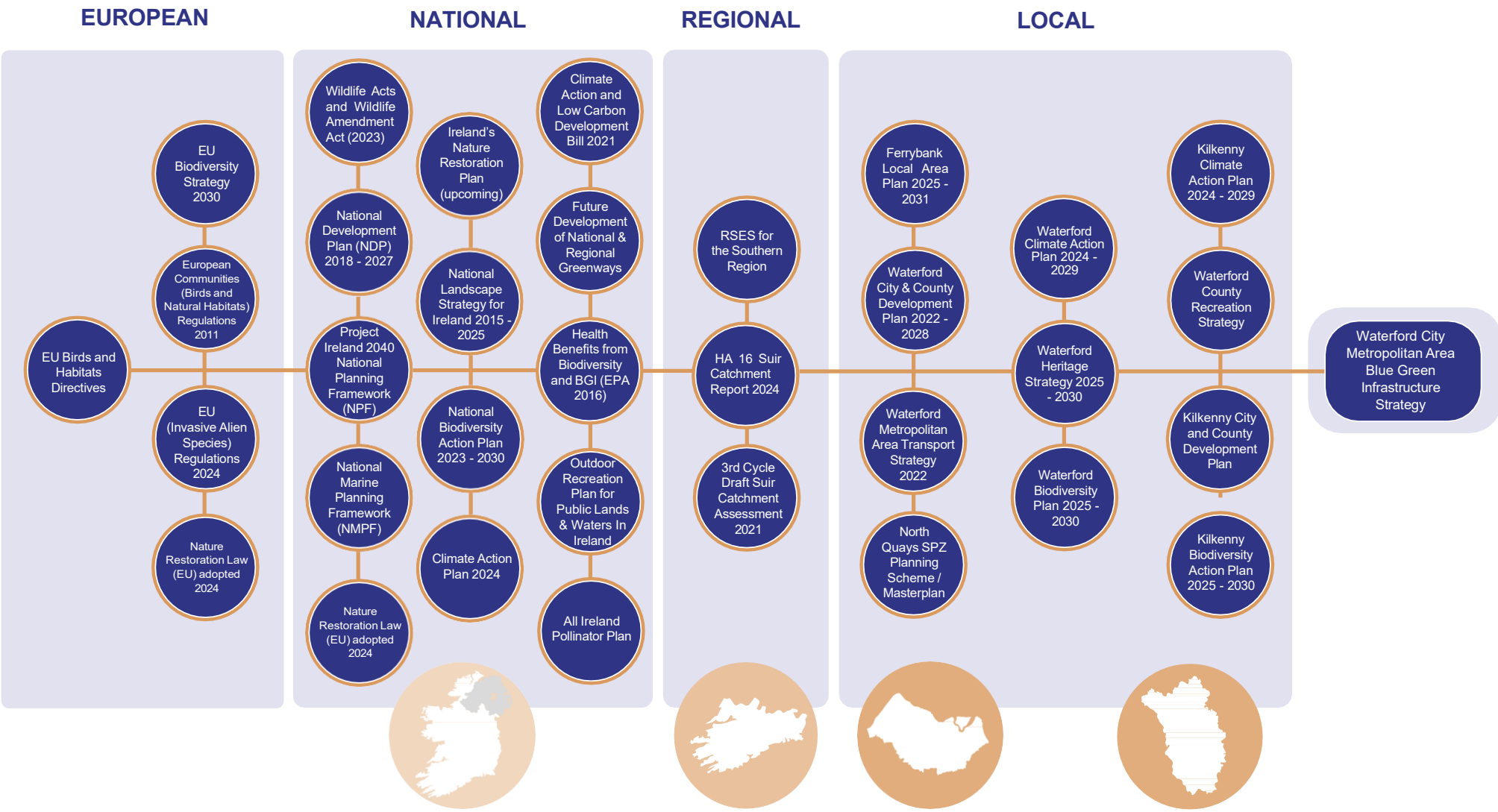
- To provide a valuable strategic document that will actively guide and influence future land use policies and objectives in the MASP area.
- To provide a clear, evidence-based approach to safeguarding and enhancing the BGI assets in the MASP area, which achieves sustainable compact growth that reduces the carbon footprint of Waterford MASP and increases our resilience to the effects of climate change and halts and reverses biodiversity loss.
- To set out priority actions over the short, medium and long term to be tied into a future action/implementation plan.
- To provide guidance to increase green space and opportunity for Nature-Based Solutions and biodiversity net gain within development management

Green tram lines in Leipzig, Germany

Biodiversity within amenity greenspace, Berlin, Germany

Community garden, Manchester UK

Planning policy context for BGI in Waterford



How was the Strategy Developed?

The Strategy was broadly developed in the following four key stages:

Stage 1: Project inception

This initial stage was used to fully understand and discuss expectations from the Strategy, including how it would be used by the full range of stakeholders with an interest in, or role in delivering, BGI.

Stage 2: Analysis of the current state of the BGI network

In order to analyse how the BGI network is currently performing, the Strategy began by compiling and analysing relevant spatial data sets and carrying out a policy review of key documents across the MASP area and undertaking site audits of a sample of BGI assets within Waterford. Overall 47 different assets were surveyed. These were categorised as:

- Elements of the built environment (such as street trees and road verges)
- Linear linkages (including greenways and river corridors)
- Managed open space (including parks)
- Elements of the wider environment (including wetlands and farmland)

The outputs of this analysis are set out by BGI 'theme' in **Chapter 2**, which distils the information down into a series of 'Key Issues and Key Opportunities' for each theme.

During the course of this analysis, a group of key stakeholders were engaged with at an in-person workshop in November 2023 (see **Appendix A** in the Summary of Stakeholder Engagement for more detail). The team gathered feedback on some of the key challenges facing BGI in the study area and invited suggestions on emerging opportunities for the Waterford MASP area, to be explored further at the next stage.

At this stage, this understanding of the network was used to develop an overarching Vision for Waterford's BGI network, supported by a series of 9 strategic objectives.

Stage 3: Identification of strategic opportunities

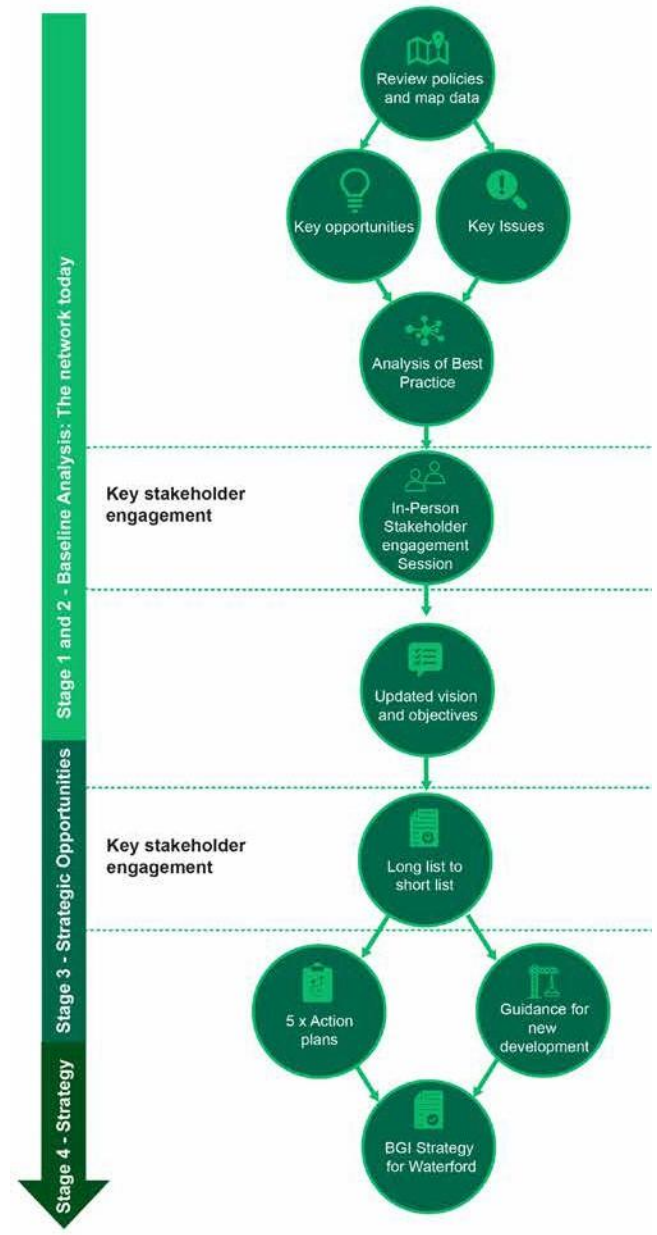
Once the baseline analysis was completed, this was combined with the input from key stakeholders created a 'long list' of strategic BGI opportunities which responded to the issues and challenges identified so far. This 'long list' was presented and discussed at a virtual stakeholder workshop in February 2024.

This feedback helped the team to distil the 'long list' down to a 'short list' of prioritised opportunities – with a focus on those strategic opportunities which deliver multiple BGI 'functions' and respond to the Vision and Strategic Objectives of the Strategy.

Each of these prioritised Strategic Opportunities were developed into a the Strategic Priorities and Strategic Projects set out in **Chapter 3** and **Chapter 4**.

Stage 4: Finalisation of Strategy

Finally, the baseline analysis and Strategic Opportunity Profiles were brought together to form the final BGI Strategy for Waterford.



How did we prepare the Waterford BGI Strategy?

An introduction to our BGI themes

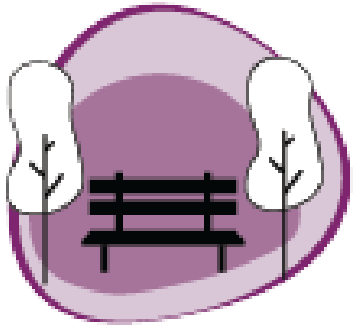
In order to reflect the multiple “functions” of BGI assets across Waterford, the first part of this Strategy breaks down its analysis of the network today into the following five cross-cutting BGI themes:

Theme 1: Nature-positive Waterford

BGI actively champions the protection, restoration and resilience of nature. It realises the importance of biodiversity and takes action to halt and reverse biodiversity loss in various urban settings.

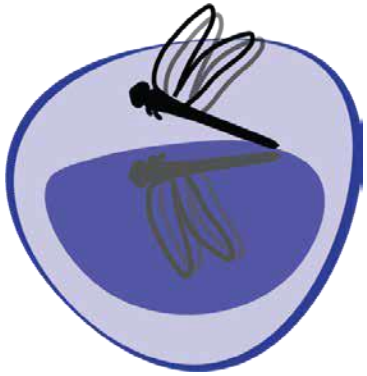
Theme 2: Active and healthy Waterford

BGI plays a vital role in promoting physical and mental well-being by encouraging outdoor activity, fostering social connections and providing access to nature, which is increasingly recognised as essential for health – particularly in the context of preventative care and climate related challenges.



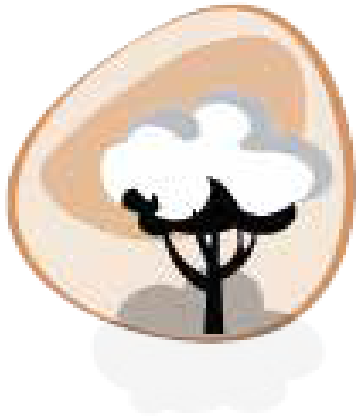
Theme 3: Waterford’s thriving and prosperous communities

BGI fosters thriving communities through place-making, attracting investment, creating green jobs and supporting local economies, particularly in response to cultural shifts such as online shopping and remote working.



Theme 4: Protecting Waterford’s blue corridors

BGI provide Nature-based Solutions (NbS) which mitigates flooding, provides for wildlife, and enhances water quality by enabling natural filtration processes, sustaining the water cycle, and promoting Sustainable Drainage Systems (SuDS), Natural Flood Management (NFM).



Theme 5: Resilient and climate positive Waterford

BGI plays a dual role in combatting climate change. NbS can be utilised to provide BGI which mitigates and adapts to climate change. This includes preserving and creating habitat that sequesters carbon, water management and urban cooling. BGI can also incorporate the need for additional green space to grow local food. This also includes promoting walking and cycling to reduce carbon emissions.

What happens next?

This Strategy acts as a series of evidence-based recommendations that will directly inform the implementation of relevant policy objectives of Waterford and Kilkenny Councils, as set out in the City and County Development Plans.

Its contents should be used by spatial planning teams and Development Management teams as an evidence base to support the development of BGI components of future plans and decision-making on planning applications. In addition, the strategy can provide direction for private developers.

The Strategic Priorities and Projects identified in **Part 2** will also form an important foundation for multi-partner work beyond the planning system, helping to deliver prioritised projects across the MASP area which deliver multiple BGI functions in the areas of greatest deficit. This partnership approach is crucial and recognises that the BGI network cannot be delivered through the planning process or by the Council alone – it will require a diverse and inclusive set of stakeholders.

That will mean embedding awareness of the multiple benefits of BGI across Council departments and seeking to form robust delivery partnerships with external organisations and community groups.

The Strategy provides a sense of direction but does not set out the detailed contents or design of each of these projects – for this to happen, further feasibility and design work will be required to enable these projects to be delivered on the ground.

Chapter 2:

Vision and Strategic Objectives

The Vision for Waterford MASP's Blue and Green Infrastructure network

The following overarching Vision forms the basis for all the opportunities and interventions to be proposed in the BGI Strategy. It sets out what the BGI network should look like and be achieving by 2050.

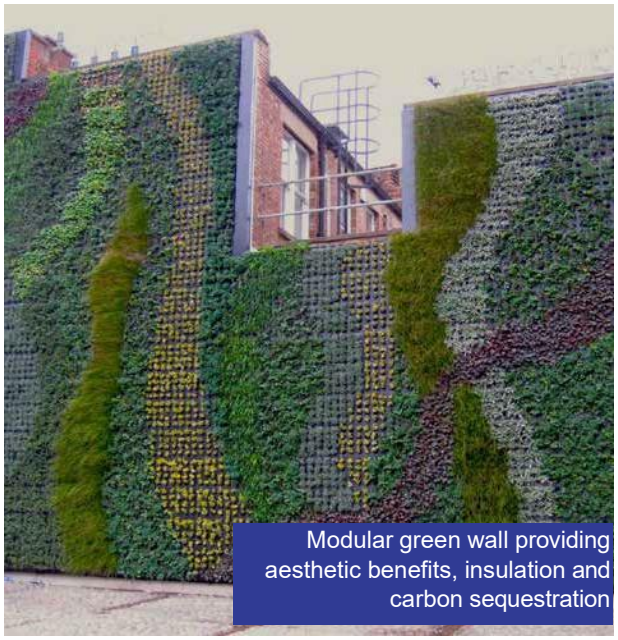
The Vision below supported by nine Strategic Objectives which are listed on the following page.

A transformed Blue and Green Infrastructure network across the MASP area will help to 'future proof' growth and cope with the pressures from a rapidly growing population and expanding urban core. A BGI-led approach to growth will be a core part of the growth agenda to create a more compact city which offers the quality of life required to retain and attract the best talent to underpin that growth.

The design of the network will be based on the 'functions' which BGI assets can provide rather than their ornamental value. This will ensure that the network offers opportunities for people, nature and place and will support wider climate action efforts. Waterford MASP will finally reconnect with the 'spine' of the River Suir, while acting with great sensitivity toward the metropolitan area's most sensitive habitats and the unprecedented pressures they face.

Multifunctional swales providing flood storage and recreation

Vegetation along traffic-free walking route



Modular green wall providing aesthetic benefits, insulation and carbon sequestration

Strategic Objectives

SO1: Reconnect fragmented habitats

To reconnect Waterford MASP's fragmented habitats to form a robust habitat network that addresses the threats to the status of designated sites and provides functional ecological connectivity.

SO2: Provide sensitive access to nature

To ensure accessible open space includes space for nature and to remain mindful of protecting Waterford MASP's most sensitive habitats, particularly along river corridors.

SO3: Establish a regional park

To provide a regional-scale park to act as a "green lung" easily accessible to residents and visitors via blue-green links reaching into the city along 'green fingers'.

SO4: Maximise health benefits

To allow the BGI network to form the foundation for a 'natural health service', with access to high quality green space for all within an easy walk of where they live and work.

SO5: Incorporate urban greening

To incorporate a wide range of multifunctional urban greening features into new development and reimagined areas of public realm, seeking to provide a nature-rich quality of place which lives up to the ambitions for the metropolitan area up to 2050.

SO6: Integrate greenway network into the city

To expand Waterford MASP's greenway network through the heart of the city, guided by a sensitive and character-led approach which does more than get walkers and cyclists "from A to B".

SO7: Restore connections to blue corridors

To reconnect Waterford MASP to its blue corridors and build a more robust understanding of the services they provide and the pressure they face, through educational initiatives and signage.

SO8: Incorporate sustainable drainage

To create a healthier balance between engineered and nature-based solutions to flood risk by drawing on 'sponge city' concepts to implement a multifunctional SuDS strategy strategically across the metropolitan area.

SO9: Increase tree canopy cover

To increase canopy cover across the metropolitan area, including within the city centre, in order to build Waterford MASP's 'carbon sink', make progress towards national targets and provide urban cooling benefits.

Chapter 3 Waterford's BGI network today

A portrait of the BGI network in the Waterford Metropolitan area

The Waterford Metropolitan Area (MASP) is centred around Waterford Harbour and the River Suir. It also overlaps with the beginnings of an extensive rural area beyond the built up neighbourhoods which includes a number of small rural settlements and industrial / commercial developments.

The metropolitan area acts as a valued gateway to a number of larger scale natural features further afield, including an extensive coastline, the UNESCO Copper Coast Geopark and the uplands of the Comeraghs/Knockmealdowns, as well as the River Suir which runs through the study area.

The Waterford City and County Development Plan 2022 – 2028 has identified in excess of 3,500ha for the purposes of maintaining amenity and BGI functions on the periphery of the city, these lands being zoned for either high amenity (HA) or open space (OS). These lands are home to many of the BGI assets identified in this BGI Strategy while the land use zoning seeks to support the protection/enhancement of the individual sites/habitats and the broader BGI network serving the city and its communities.

Waterford itself benefits from a designated sites network, which forms a foundation for local biodiversity and species including otters and migratory Atlantic salmon. Designated sites within reach of the metropolitan area include:

- Two Ramsar sites at Tramore and Dungarvan;
- Nine Special Areas of Conservation (SAC) including the Lower River Suir which flows through Waterford MASP and is designated for Atlantic salt meadows, oak woodland and alluvial forests along the banks. The river

provides important habitats for fish species like lamprey and salmon, a multitude of wetland birds and mammals like the otter; and

- Six Special Protection Areas (SPA) designated for birds.

However several of these sites are under increasing pressure, including from climate change, habitat degradation and the recreational pressures which come from a growing population and lack of access to other natural and semi-natural areas.

Besides the Suir, other key river corridors include St John's River, which runs through a series of residential areas and connects with Kilbarry Nature Park and open agricultural land to the south. Both the Suir and St John's River are under significant pressure and defined as 'at risk' waterbodies due to poor water quality. Challenges to water quality occur as a result of urban run-off and agriculture.

Given the position of the city on Waterford Estuary (made up of the combined waters of the rivers Barrow, Nore and Suir), the metropolitan area is vulnerable to both river and tidal flooding. Addressing these must form a core part of boosting climate resilience in Waterford in the long term, drawing on Nature-based Solutions.

Waterford's city centre is set for significant changes as a result of the North Quays development and a new pedestrian and cycling bridge across the Suir. However the urban core as a whole is currently more 'grey' than 'green', with minimal urban greening features.

Finally, the expanding greenway network, centred on the existing and successful Waterford Greenway, acts as a vital BGI corridor through the urban area. This forms part of a nationwide focus on expanding and consolidating an Ireland-wide network. It provides a resource for both visitors and local residents alike, and is an important part of economic growth plans. Greenways will continue to form a key part of the network going forward, including new links being explored between Waterford and New Ross and Youghal.

Tree-lined walking and cycling route

BGI as a network

The importance of a network approach

BGI functions as a network of blue and green spaces. This concept helps to understand how all BGI features perform across the district. Of particular importance to this idea is the idea of connectivity. Connected BGI is more likely to deliver a greater range of multifunctional benefits. Connectivity is particularly important for movement of species and access for people.

Assessing the BGI network

In order to consider the network of BGI assets as a whole, an 100m grid was mapped across the Waterford MASP to calculate the expected presence of 'natural' habitats within each 100m. This was based on the National Landcover Map. The scores assigned to each of the different land covers are shown below. An average score for the land cover across each cell was calculated.

Score of 1 - natural habitats

- Blanket bog
- Bracken
- Broadleaved forest and woodland
- Cutover bog
- Dry heath
- Fens
- Hedgerows
- Lakes and ponds
- Marine water
- Mixed forest]
- Mudflats
- Raised bog
- Rivers and streams
- Saltmarsh
- Sand dunes
- Scrub
- Swamp
- Transitional forest
- Transitional waterbodies
- Treelines
- Wet grassland
- Wet heath

0.5 - managed 'green surfaces'

- Amenity grassland
- Artificial waterbodies
- Burnt areas
- Coniferous forest
- Cultivated land
- Improved grassland

Score of 0 - artificial surfaces

- Bare soil and disturbed ground
- Buildings
- Ways
- Other artificial surfaces

The BGI network in Waterford MASP

The map highlights the River Suir, as well as its tributary the River Blackwater, as a major BGI corridor through the study area. At the other end of the scale, the are continuous areas with generally low natural coverage at several locations including:

- The city centre, including the South Quays;
- Ferrybank, including the North Quays;
- The quarry near Granny Knock;
- South of city centre near the Six Cross Roads Business Park; and
- East of city centre around University Hospital Waterford.

The map can also be used to help identify where there are fragments in potential natural corridors. This includes between Kilbarry bog and the River Suir and between fragments of natural areas in the south-west of the city around Carrickpherish and Ballynaneashagh.

Whilst the map is only an indicator of natural cover, and does not include any other factors such as access for people, habitat quality, aesthetic value, carbon storage or other specific measures of functionality, it gives an indication of where new BGI could best be focussed. This includes

- Adjoining the River Suir;
- Between Kilbarry bog and the River Suir;
- Around Carrickpherish and Ballynaneashagh.

Additionally, the map shows that commercial and industrial areas generally have a lower cover of natural surfaces. This includes Belview Port, University Hospital Waterford, and around the South East Technological University and Ballynaneashagh.

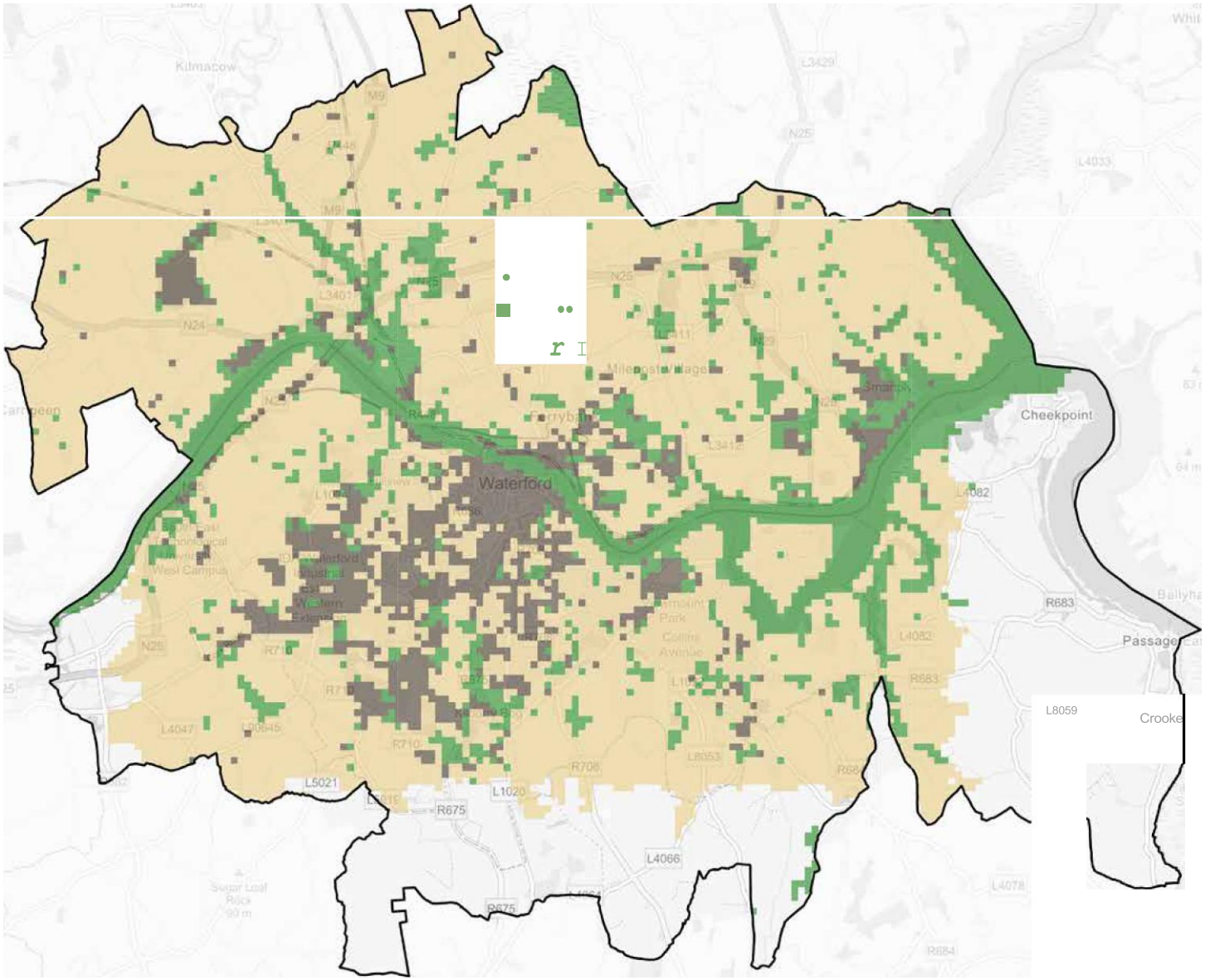


Figure 3.1: Green and natural land cover in Waterford MASP

D **MASP** boundary

Natural land cover*

- Lowest green or natural cover, highest prevalence of artificial surfaces
- Intermediate natural / artificial surface cover
- Highest natural cover, lowest prevalence of artifical surfaces

*The surface type with the highest combined area within a 100m grid determined the level of natural cover within that grid square. The surface types were taken from The National Land Cover Map of Ireland 2018.

The full extent of The National Land Cover Map data for Waterford was not available, therefore, those areas without colour should not be interpreted as without land cover.

0 1.5 3km

Map scale 1:65,000 @ A3

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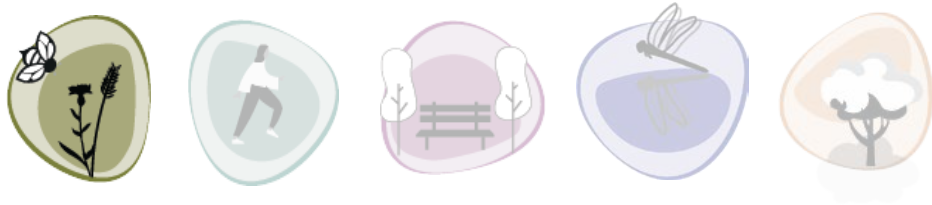
Theme 1: Nature Positive Waterford MASP



BGI actively champions the protection, restoration and resilience of nature. It realises the importance of biodiversity and takes action to halt and reverse biodiversity loss along with restoring biodiversity in various urban settings.

Why is BGI important for shaping more nature-rich Waterford?

BGI can support nature to recover and thrive everywhere, in towns, cities and countryside, conserving and enhancing natural beauty, wildlife and habitats, geology and soils, and our cultural and personal connections with nature.

Just as diversity within a portfolio of financial assets reduces risk and uncertainty, diversity within a portfolio of natural assets increases nature's resilience to shocks.

This is important because globally, biodiversity is declining faster than at any time in human history. The 2023 report on biodiversity loss by Ireland's Citizen's Assembly[1] notes that only 2% of the country has native woodland, over a quarter of Ireland's regularly occurring bird species are in danger of extinction, and that almost 30% of Ireland's semi-natural grasslands have been lost in the last decade. The majority of agricultural soil is in suboptimal state, contaminated by nitrates and phosphates and water quality is continuing to decline, with over 50% of freshwater systems in Ireland in poor and deteriorating condition due to inadequate wastewater treatment facilities and poor land management.

The Status of EU Protected Habitats and Species in Ireland (2019) report by the Department of Culture, Heritage and the Gaeltacht[2] highlighted that 85% of protected habitats are in poor condition across Ireland. Without pursuing effective, based practice BGI within increasingly urban and managed landscapes, we also undermine nature's ability to be resilient and adapt to a changing climate.

What does international policy say?

In June 2024, the EU adopted the first continent-wide law to protect nature. The Nature Restoration Law[3] sets binding targets to restore degraded ecosystems, including within urban landscapes. There is a particular focus on ecosystems with the potential to capture and store carbon and to prevent and reduce the impact of natural disasters, including wetlands, rivers and forests.

What does national policy say?

There is growing emphasis on planning to protect biodiversity in Irish national policy and Ireland declared a climate and biodiversity emergency in 2019[4]. The Wildlife Act 1976[5], backed up by the EU Birds[6] and Habitats Directive[7] provides legislative protection of rare and threatened species and habitats. The Wildlife (Amendment) Act 2023[8] ensures the protection of biodiversity including through Natural Heritage Areas.

In 2024, Ireland assembled a committee for the creation of the National Restoration Plan which is required to be published in the next two years.

An example of nature-positive areas at Kilbarry Bog

The Project Ireland 2040 National Planning Framework (NPF)[9] and the 2021-2030 National Development Plan (NDP)[10] build on this by requiring statutory land use plans to incorporate ecosystem services to conserve protected areas and species[11].

Ireland's 2015-2025 National Landscape Strategy[12] echoes these points, highlighting how blue and green infrastructure can be used to prevent fragmentation and provide habitats. The Strategy also commits to the management of the Natura 2000 Network.

Ireland's 4th National Biodiversity Action Plan (2023-2030)[13] acknowledges the important role of natural heritage, encouraging investment in biodiversity through the protection and restoration of habitats. In addition, the Wildlife (Amendment) Act 2023 added a public sector duty on biodiversity, where public bodies listed in the NBAP are obliged to deliver on the objectives and targets.

The Biodiversity Climate Change Sectoral Adaptation Plan reiterates the importance of green infrastructure to secure resilient habitats[14].

The All-Ireland Pollinator Plan[15] recognises the green spaces and greenway cycle routes.

An example of education signage to promote nature

Finally, the National Marine Planning Framework (NMPF)[16] emphasises the significance of maintaining, restoring and protecting native habitats to generate a high-quality stock of natural capital and ecosystem services for Ireland. In addition, the draft Marine Protected Areas Bill, expected to come into effect in 2024, will allow new Marine Protection Areas to be identified and designated, and strengthen management of these[17].

What does regional policy say?

The Regional Spatial and Economic Strategy (RSES) which covers Waterford seeks to make the Southern Region one of Europe's greenest regions. Regional Policy Objective (RPO) 110 requires the use of an Ecosystem Services Approach when preparing Development Plans and other statutory land use plans. Policy Objective 1 seeks to protect, manage and improve the Natura 2000 network across the region, supporting a "clean and Green City and Harbour for the expanded city".

What does local policy say?

The Waterford City and County Development Plan (WCDP)[18] 2022-2028 seeks to contribute towards the protection and enhancement of biodiversity and ecological connectivity for resilience and conservation of habitats and species[19].

The County Waterford Local Biodiversity Action Plan 2008-2013[20] (which is the first BAP for the County) identifies data and highlights where biodiversity is under pressure. It then sets out a series of actions for biodiversity in Waterford, which have largely been delivered - including wetlands, grasslands and hedgerows surveys. The resulting habitat mapping has been used to inform the baseline analysis for this Strategy (**see Figure 2.1 and 2.2**). A new Local Authority Biodiversity Action Plan will be drafted in 2024 to cover Waterford City and County actions for biodiversity until 2030.

The Kilkenny City and County Development Plan (KCCDP) 2021 - 2027[21] aims to support biodiversity, including through specific efforts to preserve and improve the county's wetlands. It also states that woodlands and trees play a critical role in enhancing the County's biodiversity and landscape by forming crucial connections between habitats, acting as essential ecological pathways and "stepping stones" for wildlife.

Kilkenny's draft Biodiversity Action Plan 2025-2030[22] sets the policy and legislative context. It provides examples of previous biodiversity research completed by Kilkenny County Council, outlines the biodiversity value in Kilkenny and the threats which are of concern. It lists actions to be achieved to record, conserve and restore biodiversity over the plan period under 6 objective headings.

What did site visits show?

Overall, aspects of the wider environment scored better than other BGI features for having species rich habitats and contributing to wider ecological networks. This likely reflects the potential for these less urban BGI assets to provide naturalistic habitats at a larger scale. Elements of the built environment scored less well for these criteria. These features tended to be relatively small in scale and unconnected.

Overall, the audit highlighted that human pressure and disturbance were negatively impacting the BGI assets, particularly for the linear linkages and aspects of the wider environment. These disturbances included the presence of multiple invasive species, including Japanese Knotweed, desire lines disturbing wetland habitat within the Special Area of Conservation (SAC) and hard-engineering design of greenways, even within more sensitive habitats.

Provision of signage, art work, or extensive programme of events to provide engagement and education on the natural environments within Waterford was generally not present within the BGI assets audited. Kilbarry Nature Park was a key exception to this.

What are the challenges and pressures in Waterford?

Appendix B sets out our more detailed analysis of protected species and habitats within the MASP area and local biodiversity priorities.

Habitat loss and degradation

The Suir catchment should be a central focus of this BGI Strategy. Much of the shoreline along the Suir river channel has been modified over time by embankments, infilling and drainage. Development on and immediately adjacent to saltmarsh has resulted in habitat loss and degradation. This has caused constant incremental pressure on natural habitats and erosion and loss of understanding of the original extent and condition of the Suir. This is known as a "shifting baseline"[23] - whereby there is a persistent downgrading of perceived 'normal' environmental conditions with every generation, leading to under-estimation of the true magnitude of habitat degradation, or loss of ecological diversity over time. This has led to a long term detrimental effect on the condition of the River Suir SAC. The habitats around Little Island are currently in "unfavourable – bad" condition.

Habitat fragmentation

Site observations showed that within the urban setting there are several extensive gaps in the habitat network, especially within the City Centre and surrounding built up areas of Waterford. As a result, the ecological value of existing urban habitat is likely to be low. Increasing pressure from urban sprawl and land take is expected to exacerbate the impact of the urban footprint on ecological networks.

Agricultural pressures

Agricultural management is having a significant effect on Waterford's wider nature network. The MASP area is surrounded by an extensive agricultural landscape. As a result of intensive farming practices, agriculture poses a potentially significant threat to biodiversity and the wider environment. Impacts include poor water quality within the River Suir and Barrow Estuary along with habitat loss and fragmentation. However, there is significant opportunity for agricultural practice to contribute positively to biodiversity gain, and provide ecological corridors within the wider landscape.

Recreation

Finally, increases in tourism and recreation, particularly through introduction of Greenways and Blueways and associated development is impacting nature. Impacts include direct habitat loss to make space for greenway infrastructure,

Recreational pressure along the River Suir at Kings Channel

noise disturbance and spread of invasive alien species. There is a particular risk where invasive alien species are introduced into river systems. Leave No Trace principles should be encouraged, particularity regarding the cleaning and drying of watersports equipment.

In addition to impacts on Waterford's designated site network, there have also been impacts on the network of local wildlife sites. This has been largely a result of development and recreational impacts on proposed Natural Heritage Areas (pNHAs), which puts significant pressure on local biodiversity.

The permitting of access to sensitive habitats such as dry calcareous grassland along the South East Greenway in Ferrybank connecting Waterford City with New Ross has resulted in habitat degradation and fragmentation. The cumulative impacts of these issues contribute to the ecological crisis.

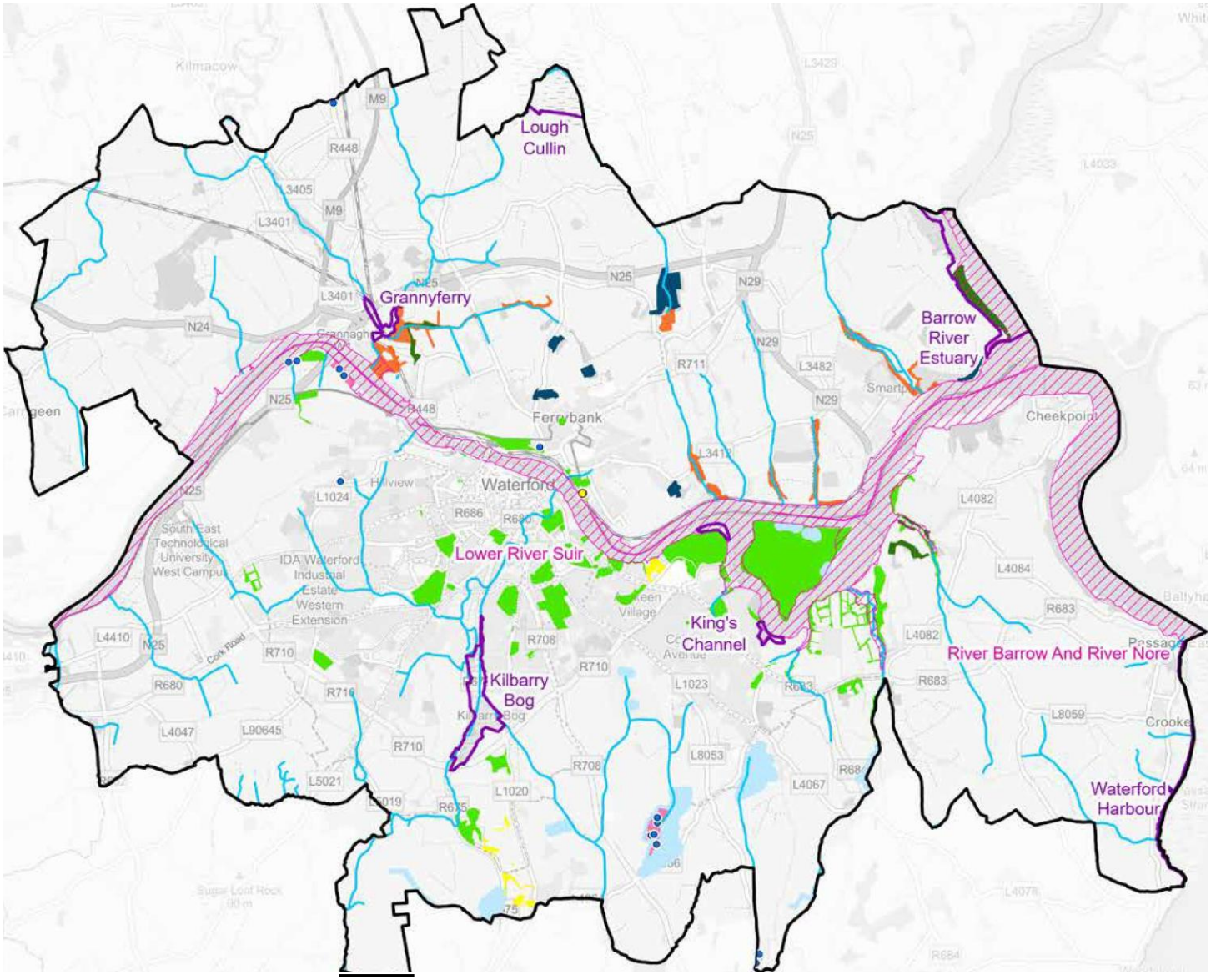


Figure 3.2: A nature-rich Waterford MASP, baseline map

c:J MASP boundary
- Ancient and long established woodland
- Semi-natural grassland
-- River network
• Floodplain and callows grassland

Statutory and non-statutory nature conservation designation

c:J Proposed Natural Heritage Area
f222l Special Area of Conservation

Waterford-wide data

Wetland
- Trees of special amenity value
Tree preservation order

Kilkenny-wide data

- Locally important habitat*
- Tree stands
o Tree preservation order

*As outlined in the Ferrybank/Belview Local Area Plan, 2017.

0 1 5 3km

Map scale 1:65,000 @ A3

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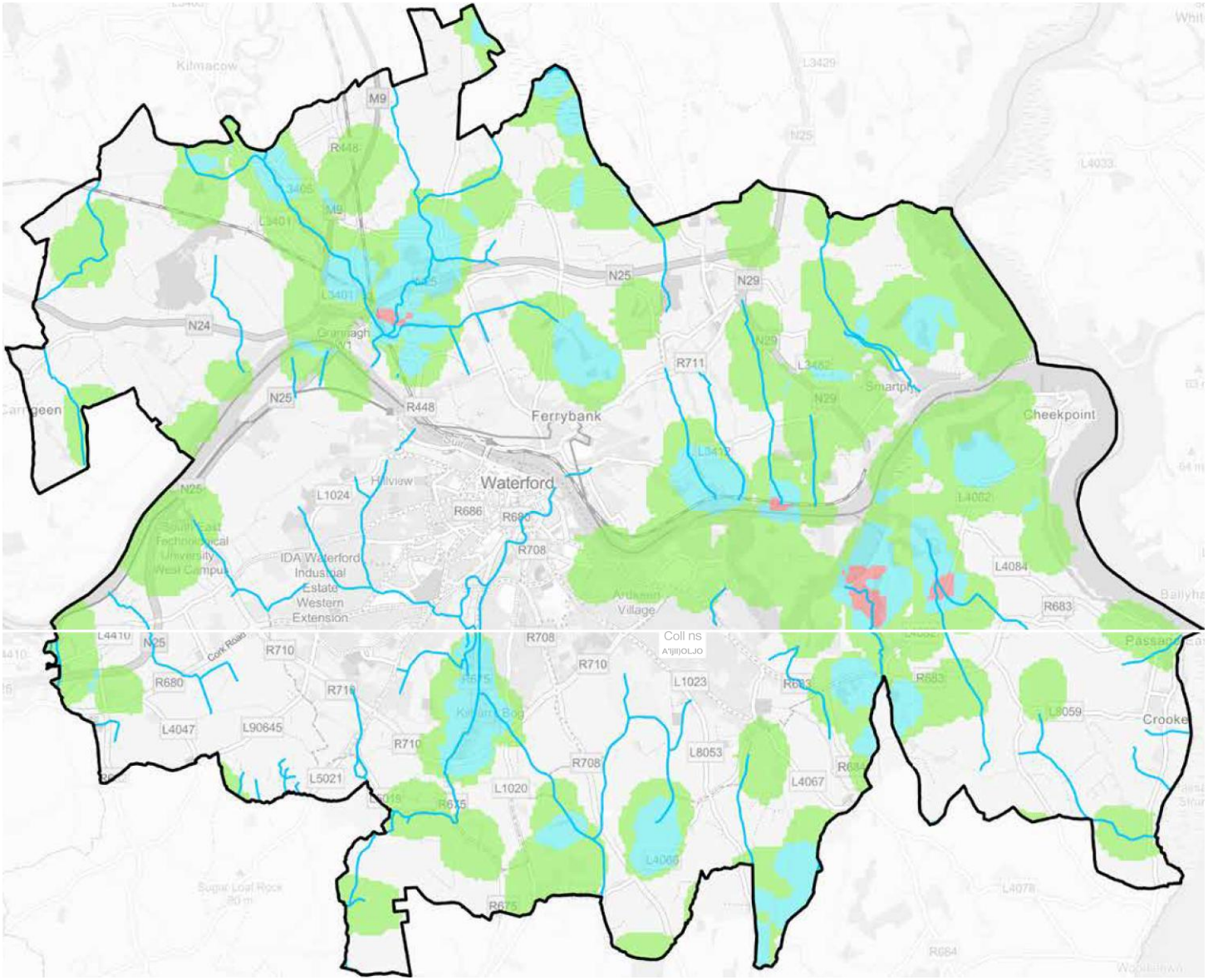

Figure 3.3: Ecological networks in Waterford MASP

CJ MASP boundary

-- River network

Ecological network*

- Part of 1 single ecological network
- Part of 2 overlapping ecological networks
- Part of 3 overlapping ecological networks
- Not part of an ecological network

*Areas that are well connected to facilitate the movement of key species from one habitat to another.

0 1.5 3 km

Map scale **1:65,000 @ A3**

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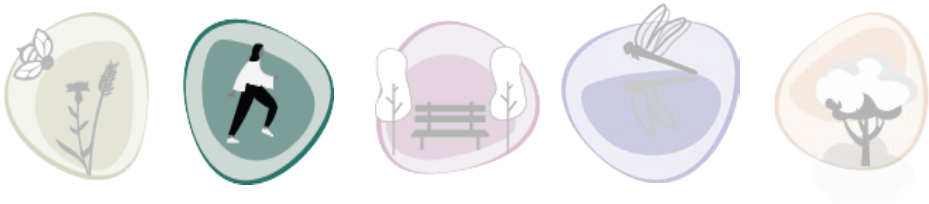
Summary of key challenges

- Substantial fragmentation and degradation of habitats along the banks of the Lower River Suir SAC are contributing to the ecological crisis.
- Intensive agricultural practices are putting pressure on river catchments and habitat networks which impacts on water quality downstream within the urban centre of Waterford. Habitat loss due to development and an increase in hard surfacing is also needed.
- Historical loss of riparian bankside and saltmarsh habitat along rivers, through modifications including installation of embankments, infilling, drainage and other bankside developments such as for industry.
- Climate change poses additional threats of habitat loss, particularly of intertidal saltmarsh and mudflats. This is compounded by pressure from water pollution.
- Population growth is causing increasing recreational pressures on sensitive habitats and species, risking further pressure on the designated site network.
- Spread of invasive alien species and the associated pressures on rare and protected habitats and species. This risk extends into parks and other blue and green infrastructure.
- Historic infilling of green spaces and wetland and floodplains over time to enable development and hard infrastructure.

Summary of emerging opportunities

- Waterford City and County can become a leader in delivering and maintaining Blue and Green Infrastructure utilising international best practice guidance such as IUCN[24], which goes beyond the minimum, incorporating nature-based solutions with creative design and using emerging monitoring indicators of effectiveness.
- Prioritise development that works with and around areas important for wildlife. These provide features of local character which are important in place making. Mapping areas of local importance for biodiversity and integrating with conditions of planning.
- BGI policy which recognises the ecological value of SACs and proposed pNHAs, along with improved ecological monitoring to understand and prevent decline over time.
- Engaging with local landowners, farmers and communities to deliver habitat restoration and nature-friendly farming.
- Increase landscape resilience against flooding through increasing the extent of habitats which provide resistance to surface water flow on agricultural land particularly along upstream channels, ditches and river valleys within upstream areas of main river catchments. Examples include planting hedgerows along valley slopes, and reducing intensity of grazing on pastureland to create tussocky grassland formation which slows the flow of water and prevents soil erosion.
- Improved understanding of the network of green spaces within Waterford to identify pressures, needs and opportunities to create a more robust network for biodiversity – such as through pollinator habitat creation, wetland restoration and wildlife friendly planting strategies.
- Riparian corridors and other low lying areas (including the King's Channel meander) present an opportunity for saltmarsh and floodplain restoration for both climate change mitigation and delivering biodiversity net gain objectives.
- Vegetated Sustainable Drainage Systems (SuDS) offer opportunity for supporting biodiversity and addressing climate resilience, in the face of increased flood risks.
- Increasing canopy cover and constructed wetlands in urban areas and parks would support biodiversity networks in addition to climate resilience benefits (see Theme 5 for the latter).
- Educational resources and public engagement around the need for "messiness" and habitat complexity to support wildlife and ecological recovery.
- Education across green space management teams to raise awareness of and take action against the harmful effects of certain management techniques, such as the application of glyphosates on invertebrate diversity and water quality.
- Monitoring and evaluation of BGI interventions which utilise habitat creation and restoration provides opportunity for documenting success of nature recovery, through surveying habitat and species involving citizen science.

Theme 2: Active and Healthy Waterford MASP



BGI plays a vital role in promoting physical and mental well-being by encouraging outdoor activity, fostering social connections and providing access to nature, which is increasingly recognised as essential for health – particularly in the context of preventative care and climate related challenges.

Why is BGI important for active and healthy places in Waterford?

BGI is important for keeping us physically and mentally healthy. It does this by encouraging us to stay active, providing places to come together outside and connect with each other and nature.

Having parks and green spaces near where people live is increasingly recognised as being good for us. The COVID-19 pandemic only further underlined why this is important.

Today, faced with significant physical and mental health challenges, attention is turning to preventing health problems rather than treating them once issues arise. This means helping people live healthier, more independent lives. Being active and spending time in nature can help with this, as part of a 'natural health service'. Doctors can even prescribe activities like walking groups or gardening to help people under the banner of 'green social prescribing'.

Paths and trails for walking, cycling, and using wheelchairs form an important part of the BGI network. Indeed, a 2012 report used the World Health Organisation's (WHO) health economic assessment tool to estimate the value of recreational trails for walking and cycling in Ireland at nearly € 69 million[25].

The Environment Protection Agency (EPA) and Health Service Executive (HSE) research report[26] on connecting with Nature for Health and Wellbeing found that people value blue and green spaces for a range of non-economic benefits. The study found that there was a strong desire for nature to be accessible for all. Participants also stated that litter and unmanaged facilities discouraged people into nature.

This should provide for all ages and needs. Access to wild spaces enables young adults and children to develop a greater appreciation of nature while encouraging participation in outdoor pursuits like swimming, watersports and climbing. Older people need accessible natural spaces to relax and socialise.

Finally, against the backdrop of an ongoing climate crisis, BGI helps protect our health from problems caused by climate change such as extreme heat, floods and droughts.

What does national policy say?

Healthy Ireland (A Framework for Improved Health and Well-being, 2013 – 2025) details the close relationship between (physical and mental) health and the environment[27]. This is also set out in the Environment Protection Agency's research paper Connecting with Nature for Health and Wellbeing[28].

Within Ireland's National Planning Framework (NPF), National Policy Objective (NPO) 62 identifies the importance and value of green spaces at a city and regional level to enhance connectivity for people. NPO 64 promotes walking and cycling as a favoured mode of transport in building more active lifestyles into daily life.

Goals 1 and 2 of the Framework for Improved Health and Wellbeing aims to increase the level of health and well-being across all ages through environmental solutions to support healthy living.

Seating and signage to encourage use of Waterford's Greenway

At the national level, there is a big push to build a sequence of active travel infrastructure, which will form part of the BGI network.

Ireland's island-wide Greenway network is designed to provide walking, cycling and water-based connections across Ireland, linking the Atlantic coast with the Eastern Seaboard. A key focus of policy attention in Ireland, this transformational green infrastructure network is designed to provide an opportunity for residents, tourists and visitors to actively travel easily through rural areas[29]. The development of the Greenway network supports several of the priority actions in Ireland's 2022 National Physical Activity Plan[30].

The 2015-2025 National Landscape Strategy for Ireland and the 2018 Strategy for the Future Development of National and Regional Greenways[31] also both highlight the important role Ireland's greenways play in promoting healthy and active lifestyles.

Finally, the National Marine Planning Framework builds on this by highlighting the role of "blueways" in this agenda[32].

National policy also establishes a series of standards for local open spaces across the Republic, requiring between 2 – 2.5ha of open space per 1,000 population[33]. This policy sets out that local parks should be within 10 minutes walk of homes, district parks should be on public transport routes and pedestrian or cycle paths, and playgrounds should be carefully sited within residential areas.

What does regional policy say?

The RSES supports the view that green and blue spaces are not only important and beneficial for nature but for the physical and mental health of people, especially within urbanised areas. The RSES aims to build a region which is one of the most liveable in Europe. This includes walking and providing pedestrian corridors between settlements and new public parks[34].

What does local policy say?

The Waterford MASP (Policy objective 21) focuses on recreational amenity and parks for the expanding metropolitan population. It notes the increased demand for access to parks and open spaces and their importance not only for nature but for health and well-being. It states that natural and semi-natural assets should be recognised as 'infrastructure' and be actively planned for and invested in.

The Waterford City & County Development Plan (WCDP) identifies access to and use of green and blue spaces as crucial for well-being and quality of life. That means enhancing active and walkable green and blue links to open spaces to encourage physical activity35. The One Waterford: Local Economic & Community Plan 2023-202936 also emphasises the importance physical activity to promote strong mental and physical health.

Similarly, the Kilkenny City and County Development Plan (KCCDP) highlights the quality of life benefits provided by green spaces. This is supported through the range of open spaces, walking and cycling loops throughout built-up areas of Kilkenny City. In wider Kilkenny (outside of the MASP area) these include the South Leinster Way and the Nore Valley Walk.

Plans for the Waterford City, Kilmacthomas and Dungarvan Greenway are a key part of delivering on the city's active travel ambitions, as is the Waterford Area Cycle Network Plan37.

What did site visits show?

Overall, the BGI assets audited tended to score well in this theme compared to the other themes. Managed open spaces and linear linkages were the highest scoring type of BGI asset for active and healthy places.

The assets audited supported active movement through walking and cycling. This was particularly the case for the linear linkages and elements of the built environment. Support for other forms of physical activity, for example through outdoor gym equipment, sports pitches or play equipment was restricted primarily to managed open spaces.

Spaces for quiet contemplation are also important, particularly for providing wellbeing benefits. Scores for this were highest for managed open spaces. Managed open spaces, along with elements of the wider landscape also performed best for having a perceived pleasant and healthy environment.

What are the challenges and pressures in Waterford?

Health and well-being

At a national level, inactivity is estimated to cost Ireland (in a worst-case scenario) approximately €1.5 billion per annum[38].

In 2011, according to the Waterford City Development Board, 28% of adults in Waterford were identified as "sufficiently active", while 72% were considered insufficiently inactive. At the time,

one in four adults are considered “not active at all”[39]. Walking and cycling levels remain low across the metropolitan area. The MASP notes that only 18.3% of people travel to work/education by walking or cycling.

Air quality

At a national level the Environmental Protection Agency notes that, while Ireland met all of its EU legal requirements in 2021, it did not meet the new health-based WHO guidelines that year. It highlights localised issues that are impacting the air we breathe – particularly along busy primary roads[40]. An air quality monitoring network has been established, including monitors in Waterford itself (at Merchants Quay and Pady Browne’s Road)[41]. However, wider data on longer term trends and specific areas of need is not yet available.

Changing demographics

The metropolitan area is facing an ageing population. The MASP notes that currently 14% of the area’s population is aged over 65, which exceeds the national average.

In line with national trends, between 2016 and 2022 there was a 21% increase in the number of over 65s in Waterford and a 22% increase in Kilkenny[42]. These indications of an ageing population will need to be considered when planning for and designing BGI.

Hard surfacing along Waterford Greenway

Access to green spaces, blue spaces and greenways

South of the River Suir, Waterford’s network of publicly accessible parks include The People’s Park and play spaces such as Railway Square Playground and Wyse Park. There are a number of formal gardens in Waterford, including the Fairbrook House Garden, Abbey Road Gardens and Mount Congreve. Playground spaces are sparsely located and are often poorly connected. Kilbarry Nature Park is an important open space, offering access to natural greenspace. This open space has been awarded the Green Flag award.

South of the River Suir, the main green space access gaps lie either side of Kilbarry. Our BGI audit of central areas of Waterford highlighted that there a deficiencies around the waterfront and poor connectivity between those green spaces available.

Further data collection on smaller, informal greenspaces, particularly within the Kilkenny part of the metropolitan area should be a priority in order to accurately target interventions.

The road network in Waterford (notably the R680 and the R675) currently acts as a barrier when accessing large-scale accessible green spaces such as the Kilbarry/Waterford Nature Park – a point underlined by key stakeholders. The absence of public rights of way (beyond permissive routes) across Ireland also forms a barrier for residents accessing the wider countryside outside the city limits, other than along the Greenway and Kings Channel walkway. This was cited by stakeholders as one of the drivers of identified recreational pressures on sensitive habitats where they are accessible (**see Theme 1: Nature-rich Waterford**).

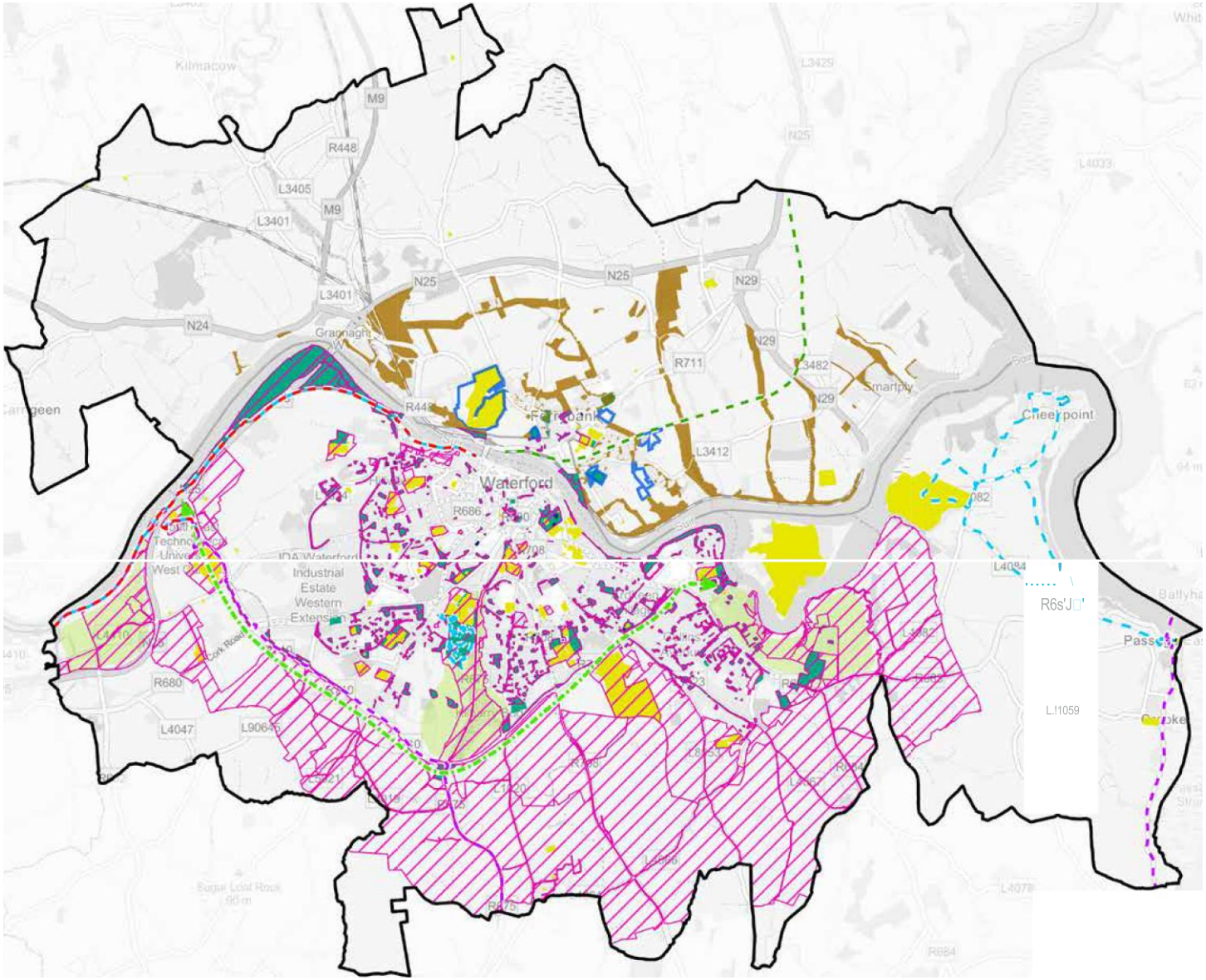
The flagship 46km Waterford Greenway opened in 2017 and runs along the former Mallow/Waterford railway line, forming part of EuroVelo 1 route. There are ongoing plans to extend the route further, to provide a link through the North Quay area at the heart of the city, and to link in to wider “EuroVelo” routes.

The 2018-2021 Waterford Strategic Plan conducted a survey and found that 68% of respondents saw the Greenway as their main motivator for their trip to Waterford. 27% of people use the Greenway weekly and 28% travel on the Greenway with children[43].

However, comments raised during the Waterford Strategic Plan consultation process revealed that there is a lack of awareness of these routes. This underlines the need for clear wayfinding in order for them to reach their full potential.

There was also a sense among stakeholders engaged during the Strategy that, whilst the active travel agenda is positive, more needs to be done to enable people to “dwell” in green spaces, by improving multifunctionality, inclusivity and providing formal access. There was also a concern raised that the active travel agenda requires a strong but sensitive, character-led approach which respects sensitive habitats and includes consideration of impacts on biodiversity. This includes mitigation of noise disturbance associated with Greenways, as well as habitat lost to the footprint of the Greenway itself (**See Theme 1: Nature-Rich Waterford**).

3.4: An active and healthy Waterford **MASP, baseline map**



c:J MASP boundary

Open space

- Amenity greenspace - publicly accessible and private
- Outdoor sports
- Provision for children and teenagers

Waterford strategic open space

- Area
- Link

[Z2j Wateford high amenity and open space land use zoning

Kilkenny zoning objectives

D To allow for active open space

- To allow for passive open space/green links/biodiversity conservation

Recreational green corridor

- EuroVelo 1
- Waterford Greenway
- Kilkenny Gree way
- Recreation route

□ 0 _____1.□5====3km

Map scale 1:65,000 @ A3

Summary of key challenges

- Evidence of inactive lifestyles among local population, leading to health challenges.
- Access to open space varies across the MASP area, but lack of consistent spatial data makes it difficult to identify deficits in the open space network across the MASP area. Anecdotal evidence suggests in places there is a lack of easy access to open spaces and amenities, particularly via modes other than cars.
- The BGI network will need to adapt to an ageing population to support a range of demographics.
- The current walking and cycling network in Waterford City is fragmented, with missing connections missing between flagship projects such as greenways.
- Expected population growth will require a greater provision of open space and greenways to support recreational needs of a larger population.

Summary of emerging opportunities

- Linking up and enhancing existing greenways to work toward a 'more connected island', in line with Ireland 2040 ambitions. This will amplify Waterford as a "Greenway hub" in the wider network.
- Shaping a more nature-sensitive, character-led network of greenways and better integrating BGI into all active travel routes and neighbourhoods.
- Connecting the Waterford cycle network with the existing National Cycle Network to further increase ease of active travel.
- Age-friendly design of open space network, including surfacing and resting places.
- Provision of greater off-road, green, active-travel options, particularly between key local destinations to reduce car dependency for short trips.
- Provision of strategic-scale, multifunctional green space to act as a "green lung" for the city.
- Exploring how existing areas could be re-purposed and access opened up.
- Enhancements to / expansion of St John's river walk to connect key green spaces.
- Urban greening and increasing tree cover within urbanised areas, to fulfil strategic goals of Waterford becoming a 'liveable city'. This should be prioritised in areas of high footfall.
- Improving data availability on the green space network across the MASP, to support accurate identification of spatial deficits.
- Monitor interactions with nature along greenways and blueways and improve interpretation which highlights the sensitivity of these areas.

Theme 3: Waterford MASP's Thriving and Prosperous Communities

BGI fosters thriving communities through placemaking, attracting investment, creating green jobs and supporting local economies, particularly in response to cultural shifts such as online shopping and remote working.

Why is BGI important for shaping a thriving and prosperous Waterford?

BGI helps to create and support prospering communities that benefit everyone by creating a sense of place – sometimes called 'placemaking'. It is attractive to businesses and investors, creates green jobs, supports retail and high streets, and helps support local economic strategies, regeneration and the visitor economy. Placing accurate economic value on blue and green infrastructure is vital and will help to support the case for sustained investment.

Especially in city centres, the COVID-19 pandemic sped up the decline of traditional shopping areas. More people are shopping online and working from home, which has led to shops closing and a shift in office accommodation needs. These trends are forcing local authorities more than ever to rethink the shape and purpose of town and city centres and how to positively respond to longer term changes. This is likely to focus beyond retail and look to residential, leisure, education and community uses – all of which can benefit from a more BGI-led regeneration focus.

In Waterford, where tourism is an important part of the wider economy, the value of placemaking can bring in more visitors, both within the city centre and beyond.

Finally, historic features are an important part of any BGI network. They help tell the story of a place and the landscape that surrounds it, providing characterful anchor points to journeys and destinations in their own right.

Examples of businesses in Waterford's city centre

What does national policy say?

The National Planning Framework (NPF) aims to enhance peoples' experience of living and working in and visiting urban places in Ireland, offering a quality of life that people will choose. The framework notes that quality of place is critical to economic prosperity, as city regions like Waterford become the focal point for internationally mobile investment.

The NPF also notes that placemaking is identified as a key "differentiator" in Enterprise 2025 (Ireland's National Enterprise Policy 2015-25). It highlights that a well-planned urban area with strong BGI will contribute to attracting skilled employees and investment to underpin long-term development. In particular, the Framework recognises the important link between high quality greenspaces and an increase in tourism - with a focus on the development of a national and regional greenways, blueways and peatways strategy (National Policy Objective 22).

The importance of conserving Ireland's rich heritage assets are the focus of National Policy Objective 60.

The NPF identifies some of the future growth and job enablers for Waterford as:

- Delivering the North Quays SDZ regeneration project - including the establishment of a new bridge across the River Suir (for pedestrians and or public transport).
- Providing a city-wide public transport and strategic cycle network.
- Extending the greenway from Deise to the city centre.

The national People, Place and Policy "Growing Tourism to 2050"[44] document sets a goal of growing employment in the tourism sector from 200,000 to 250,000 by 2050.

What does regional policy say?

The RSES states that future development will ensure quality urban design to enhance the character of a place and to ensure development is respectful of the existing physical, social, environmental and cultural context (Regional Policy Objective 202). RPO 10 in particular seeks to deliver BGI for strategic sites through good design.

The RSES also supports rural public transport services including the greenway, walking and pedestrian corridors between settlements (RPO 200 and 201).

What does local policy say?

Waterford MASP Policy Objective 9 focuses on a "vibrant city centre focused on Waterford city centre". While not referencing BGI explicitly, it supports improvements to the public realm and streetscapes.

The Waterford City and County Development Plan (WCDP) requires that, as part of evaluating development proposals, there should be elements incorporated to enhance the appeal to the public. This involves integrating urban greening as a fundamental aspect of the overall design[45].

The People and Place Waterford Heritage Plan 2017-2022[46] highlights the role of the Waterford greenway as a tool for generating heritage tourism locally. It promotes sustainable travel, heritage and environmental assets including the River Suir SAC. This is reiterated in the One Waterford Local Economic and Community Plan (2015-2020), which also emphasises the need to support the sustainable development of Waterford's "blue economy". This largely focusses on the role of "blueways", which provide recreational trails along waterways and promote activity-based tourism[47]. The Lower River Suir SAC is designated for its habitats and species and restoration of these to a favourable condition is essential. Responsible tourism development should steer away from sensitive areas.

The Kilkenny City & County Development Plan (KCCDP) suggests that there is a large potential to propose camping sites and a visitor plan to complement the Greenway tourism asset, generating further economic opportunities.

Waterford city centre high street - Michael Street

What did site visits show?

The majority of assets audited did not show evidence of explicitly contributing to creating thriving and prosperous places, particularly outside of the Living City (city centre) area and the Greenway.

Higher thriving and prosperous benefits are associated with criteria assessing visitor and tourist potential of BGI assets, notably in relation to the nationally-recognised Greenway asset.

Lower scores were associated with criteria assessing community engagement and ownership, suggesting that this approach is not currently widespread throughout the city.

What are the challenges and pressures in Waterford?

By 2040, the target population for Waterford City and suburbs is 81,000, a 50-60% increase from the 2016 population figure of 54,000[48]. However the Pobal Deprivation Indices for Ireland highlight that pockets of relative socio-economic deprivation exist on some of the southern fringes of the urban area (see Figure 2.5). Stakeholders engaged for this Strategy noted that there is a physical divide between the communities residing on opposite sides of the River Suir.

The NPF highlights that a stronger Waterford could lead to development of the wider southeast – noting that this area in particular has experienced a slower economic recovery than the national average. This is due to higher unemployment rates, lower value job opportunities and job creation. A key focal point for Waterford is to enhance the quality and attractiveness of urbanised areas through employment-led growth.

The Waterford North Quays SDZ urban regeneration project is investing €170.6 million into the sustainable riverside mixed-use development which will sit at the heart of an expanded urban core. High quality multi-modal access routes and public realm are a core part of the plans.

Waterford is also emerging as a tourist centre and is a destination for cruise boat stops. However the Creative Waterford Strategy notes that sustainability is at the heart of Waterford's goals including investment into natural heritage[49]. Additionally, there are implications on the water quality and bankside habitats of the Lower River Suir SAC. Species disturbance alongside the river needs to reduce to meet the standards required of an SAC.

The Waterford and Kilkenny Greenways are a flagship asset for the visitor economy. Estimates suggest that the greenway provides economic benefits including increased demand for accommodation (1 new hostel, 8 new B&Bs), food (8 new restaurants), bike hire (5 new firms) and at least 139 new jobs[50]. The 2018-2021 Waterford Strategic Plan survey found that 41% of people using the Greenway spent money during their trip, underlining the economic value of the asset.

The opportunities for employment following on from Waterford's transformation into a modern European university city (capitalising on the presence of the South East Technological University (SETU) can broaden into 'higher value-added activities in the pharmaceutical, life science, engineering, international business services sectors, as well as tourism'. A well planned BGI network and urban greening programme should incorporate multifunctional, nature-rich greening enhancement. This will be crucial in helping the city reach these ambitions and compete for international talent. The Waterford Greenway and other BGI corridors could be utilised to link up economic clusters and new innovation clusters. However stakeholders noted that urban greening is needed to support growth and reduce the 'overwhelmingly grey' city centre.

As elsewhere, the health of the high street in Waterford has continued to be challenged by wider socio-economic trends. While Waterford City has a 'reasonably healthy and vibrant city centre'[51], it lacks the range of retailers as expected from a city of its size. Vacancy rates are generally low but are starting to increase on secondary streets. This presents an opportunity for the BGI network to support a more "experience-led" approach to planning for city centres and high streets which focuses on public realm, dwell space and a stronger connection with the city's waterfront.

It was noted in discussions with stakeholders, however, that a robust city centre urban greening strategy will rely heavily on effective and lasting sustainable transport plans which reduce the land take in the city centre for parking and 'free up' that land for BGI and public realm interventions.

Example of large scale parking on the South Quays

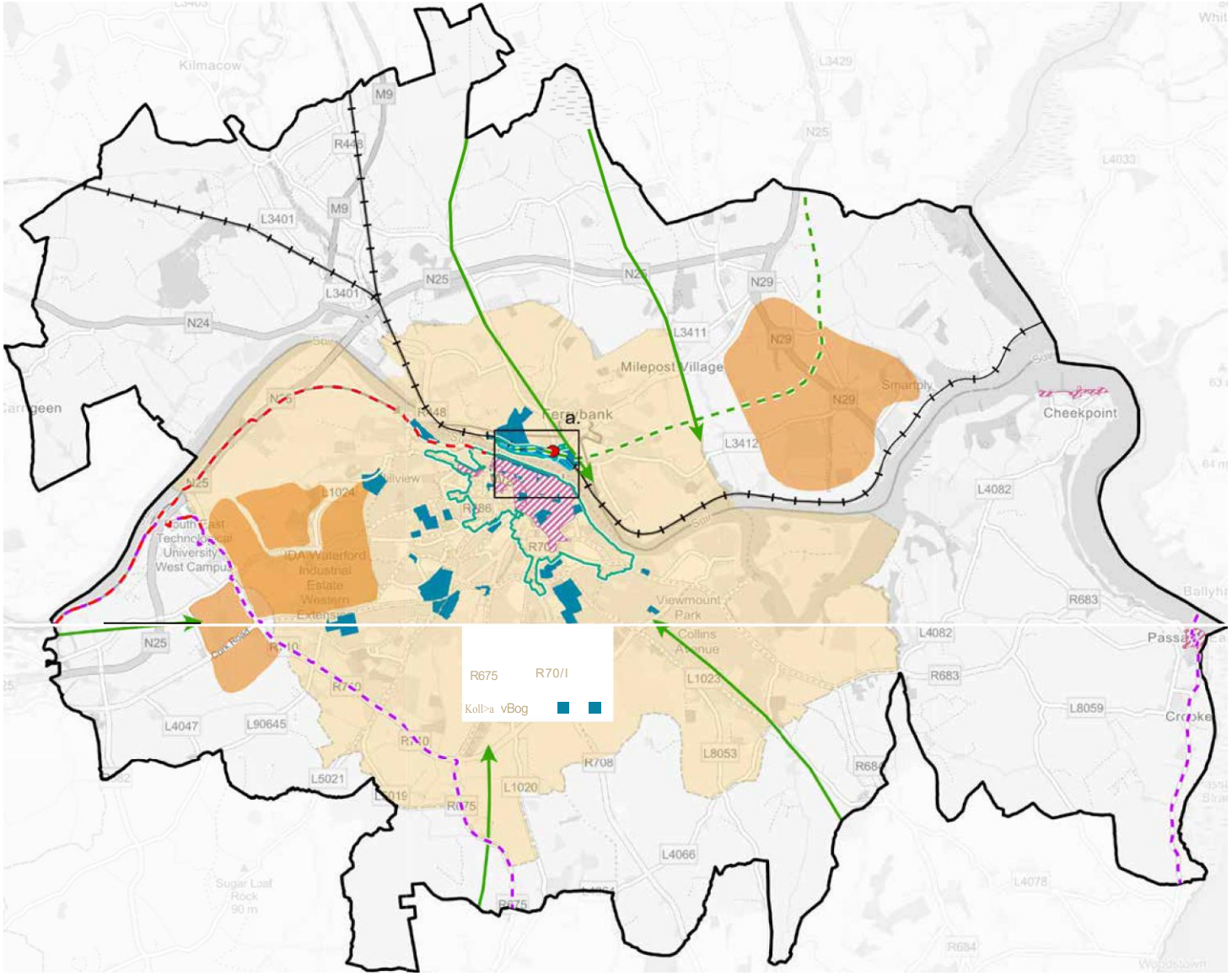


Figure **3.5: A thriving** and **prosperous Waterford MASP, baseline map**

CJ MASP boundary
D LivingCity - special regeneration area
Strategic economic growth area
\- Regeneration and opportunity site
Decarbonising zone
tsSS;l Strategic development zone
Local conservation area*
-<·► Green finger links
Waterford Greenway
Kilkenny Greenway
EuroVelo 1
-+- Railway line

*Note only available for within Waterford City and Environs.

0 1c.S====3km

Map scale 1:65,000 @ A3

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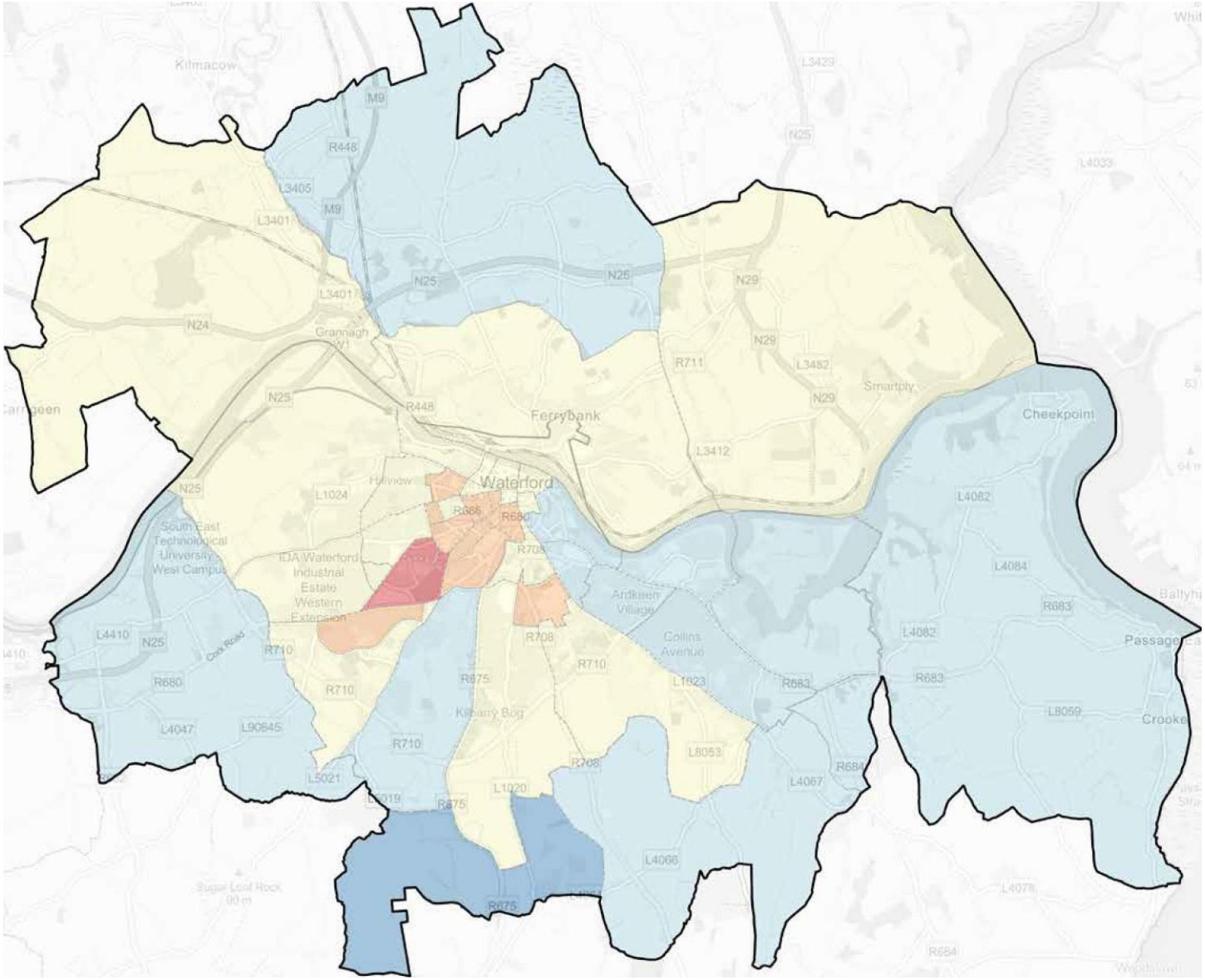

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Figure Socio-economic deprivation patterns in the Waterford MASP

D MASP boundary

Deprivation index (2022)

- Affluent
- Marginally above average
- Marginally below average
- Disadvantaged
- Very disadvantaged

Three categories of indicators, demographic, social class and labour market situation are used to calculate the relative index score.

This includes the following indicators:

- Population change;
- Age dependency;
- Third Level Education;
- Types of Profession;
- Unemployment Rate;
- Primary Education Only; and
- Persons Per Room.

Map scale 1:65,000 @ A3

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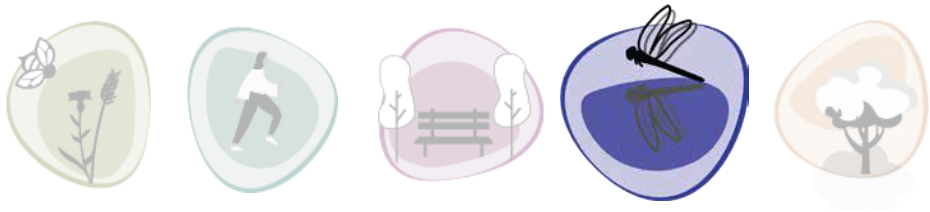
Summary of key challenges

- Pockets of socio-economic deprivation on the southern fringes of the urban area.
- Heavy car dependence in the MASP area requires significant land take for road infrastructure and parking, limiting the space available for BGI interventions.
- Waterford's BGI and public realm network do not currently meet the required standards for a city seeking to attract higher value-added activities and investment and to offer the quality of life necessary to compete for talent in these sectors.
- Challenging high street conditions, pointing to the need for a new approach to the high street focussed on experience over pure retail.
- Sense of disconnect with the waterfront and extensive areas of hard surfacing.
- River Suir is underutilised given its proximity to population centres – including for non-motorised water-based activities (where appropriate given the SAC designation), and where risk from strong currents associated with the tidal river is manageable.

Summary of emerging opportunities

- Use urban greening features in the city centre to shape a better relationship between 'grey' and 'green' in urbanised areas. Opportunities such as retrofitting redundant vehicular carriageways should be considered.
- As a quick win, utilise small roofs, e.g. on bus shelters and other native wildflower roofs on council buildings. This can then be extended to larger institutional Buildings and for commercial and residential developments.
- Due to its natural surroundings, Waterford has strong potential to offer a high quality of life. Further linkages could enhance this offer.
- Maximising the potential of BGI assets for growing sustainable tourism locally (natural and heritage landscapes), including wayfinding and interpretation.
- The inclusion of SuDS-led initiatives as part of the wider regeneration agenda, particularly around North Quay. Refer to the Implementation of Urban Nature based Solutions Guidance for Planners, developers and agents (LAWPRO 2024).
- Linking main urban and economic areas by the greenway and active travel routes.
- Enhancing attractiveness and connectivity to the waterfront and port area.
- Reconnecting the metropolitan area to its river corridor, including exploring opportunities for enhancing access to the bankside and river along historic pathways leading down to riverbanks (while ensuring no negative impacts on the SAC).
- The South East Technological University (SETU) is likely to play an important role in future as a partner in developing GBI-led placemaking in Waterford.
- Introduce representations from multiple habitat types within the urban area, providing a diversity of benefits for biodiversity, sustainable drainage and connecting nature across the city.

Theme 4: Protecting Waterford MASP's Blue Corridors



BGI mitigates flooding and enhances water quality by enabling natural filtration processes, sustaining the water cycle, and promoting Sustainable Drainage Systems (SuDS), Natural Flood Management (NFM) and Nature-based Solutions, (NbS) which mimic nature's mechanisms.

Why is BGI important for improved water management in Waterford?

BGI can improve water management across Waterford in a number of ways. Firstly it reduces flood risk by reducing both the speed and volume of storm water runoff, while improving water quality by naturally filtering out pollutants. BGI also supports the natural water cycle and good drainage at both local and catchment scales.

Nature-based solutions are an important part of the solution. This means using natural processes to reduce water flowing into drains and rivers, which lowers the risk of them overflowing. NbS also helps local ecosystems by creating and improving aquatic habitats for different plants and animals.

In cities, Sustainable Drainage Systems (SuDS) mimic nature by keeping rainwater where it falls or letting it soak into the ground instead of sending it quickly into sewers. This includes interventions like green/brown roofs, permeable pavements, swales, tree pits and rain gardens. These systems slow down water, reuse rain water, serve as new habitats, cut water pollution, and create enriching spaces for local communities.

BGI can also manage water across a whole region through "catchment-based planning", by looking at how different areas affect each other. Understanding how water, land, and nature are all connected is important for planning that works well and lasts in each catchment.

What does national policy say?

At the EU level, the EU commissioner for Maritime Affairs and Fisheries in 2012 highlighted the blue economy because of its "important role to play in the overall road to Europe's economic recovery"[52] and positive impact on growth and jobs.

Ireland's National Planning Framework and National Development Plan provide a long-term vision for spatial planning and infrastructure. National Policy Objective 57 seeks to "enhance water quality and resource management by ensuring flood risk management informs placemaking by avoiding inappropriate development in areas at risk of flooding in accordance with the Planning System and Flood Risk Management."

Ireland's River Basin Management Plans are designed to implement the EU's Water Framework Directive's goals of restoring and protecting key water bodies.

At the national level, the Catchment Flood Risk Assessment and Management (CFRAM) has identified areas of potential flood risk in

St Johns River with onlooking residential developments and hard engineering

Waterford and has prepared management plans in consultation with local authorities.

The National Marine Planning Framework further highlights how BGI can be used to manage water quality. As does the National Landscape Strategy for Ireland 2015-2025, which recognises the range of environmental benefits offered by blue-green spaces[53].

What does regional policy say?

Regional Policy Objective 14 of the RSES[54] seeks investment in water and wastewater infrastructure to facilitate the sustainable development of Waterford as a regional growth centre.

Policy Objective 956 discusses improvements to the streetscapes of the city centre, which could be included within the retrofitting of SuDS features. While Policy Objective 21 discusses investment in green infrastructure and green amenities to reach international best practice. However, experience from stakeholders suggests SuDS are being designed into development but delivery is not enforced.

What does local policy say?

The RSES identifies the Waterford Metropolitan Area Strategic Plan (MASP) as playing an important role in enhancing the natural environment and providing connections to the River Suir and Waterford Harbour. This is also supported through the Waterford City and County and Development Plan (WCDP)[55] and the Kilkenny City and County Development Plan (KCDP)[56]. These plans take into account the impact of flood risk and how to adapt and manage this risk for a sustainable and resilient future[57].

Plans for the North Quays Strategic Development Zone (SDZ) masterplan have waterways at their heart. They are designed to establish “a vibrant core centred on the River Suir”.

What did site visits show?

Generally, elements of the built environment scored lower for criteria relating to blue corridors and assets, whilst aspects of the wider landscape, which mostly included wetlands, scored higher.

Whilst many of the managed open spaces visited comprised permeable surfaces by way of amenity grass, specific features designed to retain and slow the flow of water, such as rain gardens or swales, were generally not present. The exception to this was at Kilbarry Nature Park, where wetland habitat and a detention basin were present to store excess water.

Kilbarry Nature Park also featured constructed reedbeds, aimed at filtering pollution and improving the water quality of the tributary to John’s River which runs through the north of the site. Natural reed beds at wetlands, including along the River Suir also performed this function. However, along the greenway linear linkages and within the more urban environments, these types of nature-based solutions were not implemented within the BGI audited.

Audits for the BGI assets along the river front, including along the River Suir and John’s River, highlighted a mixed quality of waterfronts. Overall, elements of the wider landscape, which had more naturalistic waterfronts, scored higher.

The River Suir

What are the challenges and pressures in Waterford?

In Waterford, rivers play a vital role for nature, water management and wider functions. Making these river corridors more resilient would help to prevent floods by retaining more water within the landscape, filtering that water through features like wetlands, and giving local plants and animals more space to thrive. However the water environment faces a number of challenges.

Flooding

Low lying areas of Waterford city are prone to river and tidal flooding, due to the city's location on a tidal estuary of the River Suir.

The metropolitan area benefits from defences on John's River and the right bank of the River Suir. However these defences do not have a climate change allowance built into their design and so this land area remains in Flood Zone A. There is a notable over-reliance on hard engineered solutions within the MASP area.

Over the past fifteen years there has been a series of large flood events at the Plunkett Rail Station. In 2020 inspections discovered that the existing flood walls were below the adequate height. This led to the development of a new Flood Defence Wall and upgraded drainage system.

As the effects of climate change are felt (**see Theme 5**) it is predicted that flood events across Waterford and Kilkenny are likely to become more frequent. Future flood risk to low lying areas of Waterford city and along the river corridor will need to be addressed.

There are minimal examples of successful SuDs features within Waterford city, along with a general deficit of urban greening and trees. Evidence suggests that SuDS features are being designed into new developments but not enforced. Over years of development, the River Suir has suffered from habitat loss of wetlands, riparian areas and salt marsh habitats alongside the loss of floodplain.

Water quality

The 2024 Suir Catchment Report[58], found that

- 112 (50%) of waterbodies are At Risk of not meeting environmental objectives;
- 41 (18%) are under Review; and
- 69 (31%) are Not At Risk.

Between Cycle 2 (2010-2015) and Cycle 3 (2013-2018), 24% of recorded water bodies declined in status.[59]

Agricultural pressures across the catchment have led to phosphorous contaminating surface waters and high nitrate concentrations polluting waterways. Sediment is also an issue from land drainage works.

Forestry activities (such as clear felling and drainage) have also resulted in heavy siltation and excess nutrients ending up in both surface watercourses across the Suir catchment and in groundwater bodies. This interferes with the water cycle as trees absorb and release moisture during the process.

Domestic wastewater treatment facilities in Waterford are often in close proximity to surface water bodies. Combine Sewer Overflows (CSOs) become possible, leading to excess nutrients polluting surface waters.

Finally, there is a challenge of elevated ammonia concentrations and increased sedimentation from peat drainage in wetlands close to surface water bodies. This is affecting water quality, including at the area of "drained" land south of Williamstown Golf Course.

Water supply and groundwater

Waterford is heavily reliant on groundwater for its public water supply[60].

Over-reliance on groundwater abstractions for the majority of Waterford means that the preservation of groundwater quality is essential to sustaining residential and commercial supply. The shallow depth to bedrock (less than 3 metres in some areas) increases the vulnerability of the aquifer to environmental pollution. Without appropriate action, the increasing population of Waterford heightens the threat to the security of water supply and could lead to a severe flow reduction in rivers.

Planning for the water environment

More broadly, there is an apparent absence in Waterford of a catchment-wide holistic approach to protecting blue corridors and increasing floodplain connectivity. Given that Waterford is expanding rapidly, it is essential to ensure that new development within Waterford adheres to the Water Action Plan 2024 - A River Basin Management Plan for Ireland.

Without proper controls, local water quality will remain a risk. The increasing trend towards industrialisation and intensification of farming remains a threat to water quality.

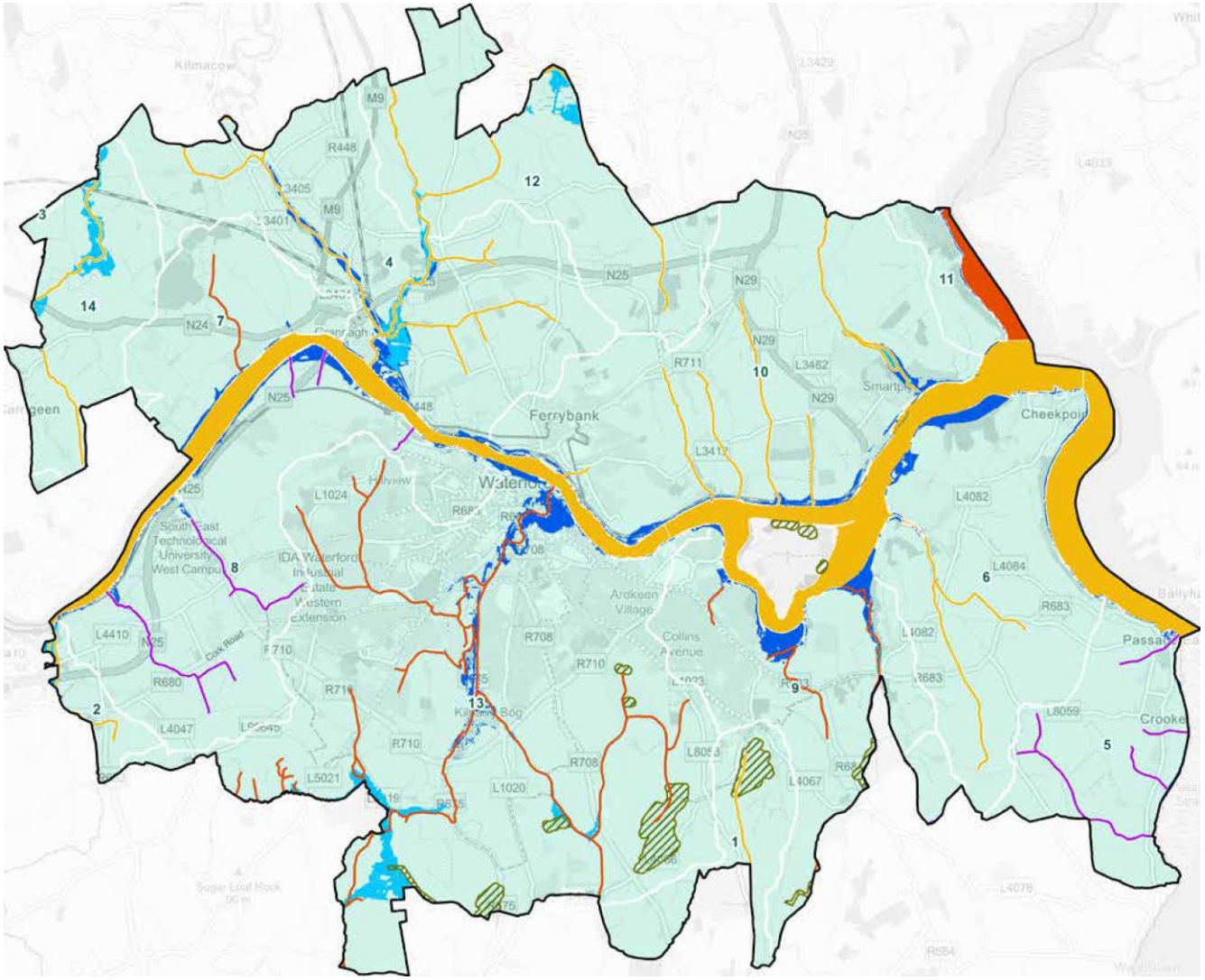


Figure 3.7: Protecting Waterford MASP's blue corridors, baseline map

MASP boundary

Wetland*

Indicative flood extents (1 in 20 years scenario)

- Fluvial flooding
- Coastal flooding

Water Framework Directive (WFD) status (2016-21) - rivers and transitional waterbodies

- Good
- Moderate
- Poor

WFD river sub-basin

1. Ballygunnermore
2. Ballymoat
3. Ballytarsney
4. Blackwater (Kilmacow)
5. Cooltegin
6. Faithlegg
7. Flemingstown (Kilkenny)
8. Glengrant
9. Halfway House Stream
10. Luffany
11. Oaklands
12. SmartscasUe Stream
13. St John's
14. Ullid

*Note only available for within Waterford City and Environs.

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Map scale 1:65,000 @ A3

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Summary of key challenges

- Vulnerability to river and tidal flooding, with an over-reliance on hard engineered solutions to flood risk across the city.
- Worsening water quality within key river corridors, impacted by increasing trends toward agricultural intensification and urban runoff.
- Lack of urban greening and SuDS features within the city centre and new developments.
- Over-reliance of groundwater abstraction, which is set to increase in line with population growth.
- Drying out of wetlands including Kilbarry pNHA.

Summary of emerging opportunities

- Improving floodplain connectivity for climate change resilience.
- Inclusion of innovative and multifunctional SuDS solutions (including the “sponge city” concept) in the North and South Quays development.
- The Western area of Waterford is cut-off from the River Suir by the N25 road. Development of a blue-green corridor along the River Suir presents an opportunity to better connect the city and the river and improve connectivity between habitats and floodplains.
- Preservation of riparian habitats along watercourses such as St John’s River, including improved connectivity with Kilbarry Nature Park.
- Re-wetting and restoration of wetlands south of Williamstown Golf Course.
- Looking for alternative/additional “soft engineering” solutions to flood protection, by incorporating SuDS features and “green streets” into both new development and retrofitting project, with more extensive permeable surfaces.
- Rewetting of agricultural land to restore saltmarsh habitat and provide flood water storage at Ballinakill and King’s Channel DMR.
- Proposed re-wetting of Grannyferry Natural Heritage Area and Kilbarry bog pNHA.

Theme 5: Resilient and Climate Positive Waterford MASP

BGI plays a dual role in combatting climate change. This includes promoting walking and cycling to reduce carbon emissions, preserving and creating habitat that sequesters carbon and managing and adapting to climate challenges through water management and urban cooling.

Why is BGI important for resilient and climate positive places in Waterford?

In simple terms, BGI plays a dual role in relation to mitigating climate change. Firstly, the provision of greenways and spaces which encourage walking and cycling over car use can reduce carbon emissions.

Secondly, BGI can play a key role in mitigating and adapting to the pressures of climate change. Habitats of various types “sequester” carbon – that is, draw excess carbon in from the atmosphere.

As Ireland’s climate changes, more extreme weather events are expected - including flash flooding, heat waves and high winds. Global warming and ice melt are also expected to lead to sea level rise impacting coastal parts of Waterford. BGI can be designed, implemented and managed to help adapt to these climate challenges.

Tree cover providing cooling and carbon sequestration in Waterford

There is a strong interrelationship in particular between BGI and water quality and retention. Tree planting, street trees, green roofs and other permeable vegetated surfaces such as open spaces, as well as restoration of wetland, all play a role in water management (**see Theme 4**). Many BGI interventions can support more than one climate change objective.

Finally, BGI itself should be designed to adapt to climate change to ensure long term resilience.

What does national policy say?

Climate change is a major driver of investment across the Republic. By 2050 Ireland aims to transition to a low carbon economy, reducing emissions by at least 80% (see National Policy Objectives 54 and 55 in the National Planning Framework). The country has also put in place a National Recovery and Resilience Plan (NRRP), which seeks to introduce innovative and radical ways to decarbonise society[61].

Ireland's 2021 Climate Action and Low Carbon Development Bill[62] and the Climate Action Plan (CAP) 2023[63] are designed to be used as a roadmap to "halve emissions by 2030 and reach net zero no later than 2050".

The CAP sets an annual afforestation target of 8,000 hectares, seeking to build the nation's 'carbon sink'. This target is supported by the Southern Regional Assembly. Peatlands are also recognised as the most important long-term carbon store in the terrestrial biosphere. Wetlands are easier to restore and can more quickly begin to sequester carbon, compared to new trees.

In addition to mitigation (by reducing emissions), the NPF supports measures which enhance the resilience of urban micro-climates including through the creation of parks, green spaces[64].

As part of Ireland Project 2040, funding was promised for Flood Risk Management Plans. Ireland's 2021-2027 Flood Risk Management Plan (FRMP)[65] focuses on the '3 Ps' of flood risk: prevention, protection and preparedness.

Climate change will continue to result in extreme weather events for Ireland. Ireland's National Adaptation Framework totals all insurance claims for damages due to flooding between 2000-2012 at €749.75 million (in 2015 prices). By 2050, it predicts that the total cost of direct damages to be approximately €1.15 billion per annum. The framework recognises the importance of BGI for climate mitigation and adaptation[66].

What does regional policy say?

A core part of the vision of the RSES is to "successfully combat climate change", noting that Irish per capital greenhouse gas (GHG) emissions are among the highest in Europe. A Regional Decarbonisation Plan will provide a regional focus for various sectors. Mitigation actions will focus on actions including sustainable transport, agriculture, forestry and climate resilience through flood defences.

What does local policy say?

The Waterford MASP (Policy objective 21) notes that the better integration of biodiversity into economic and development systems will mitigate against negative climate change consequences.

The Waterford City and County and Development Plan (WCDP) provides encouragement for nature-based solutions and BGI to encourage carbon offsetting and climate resilience initiatives such as urban cooling (policy UTL 01). These techniques are also effective for flood management and climate resilience (policies UTL 11 and H 18).

Waterford's Climate Change Adaptation Strategy identifies key actions, including to promote sustainable transport networks, develop projects that reduce surface water flood risk, enhance natural hydrological processes.

The strategic aim of Kilkenny City and County Development Plan (KCDP) is to facilitate the transition to a low carbon and climate resilient county with an emphasis on reduction in energy demand and greenhouse gas emissions. This will be achieved through a combination of effective mitigation and responses to climate change.

The Kilkenny County Council Climate Action Plan 2024-2029 also sets out how the Council will respond to the climate crisis by improving energy efficiency, reducing greenhouse gas emissions, and embedding climate resilience across the organisation. It addresses how the Council will adopt a leadership role in the county by supporting local communities, businesses and other stakeholders to take climate action.

What did site visits show?

Overall, linear linkages and aspects of the wider landscape tended to score higher for criteria relating to addressing climate change and increasing resilience.

Linear linkages scored particularly highly for promoting active travel. Elements of the built environment, including street trees and verges, also promoted this by creating a more attractive road environment.

Carbon sequestration scored highest in elements of the wider landscape, which often included wetland habitats. Woodlands were not a major component within wider landscape, and these asset types overall scored slightly lower for providing shading and cooling.

There was limited evidence of BGI being designed for a changing climate, for example through drought tolerant planting.

What are the challenges and pressures in Waterford?

Greenhouse gas emissions

As noted under Theme 2, levels of walking and cycling in Waterford are currently low, which in part contributes to the high per capital GHG emissions in the County. A stronger network of walking and cycling links is required to promote “modal shift”.

Reduced natural carbon sequestration

Between 2001 and 2022 Waterford has lost 18% of its tree cover, limiting the potential of the County’s carbon sink, as a way of tackling carbon emissions. In 2022 the percentage of tree cover across Waterford stood at 14.9%[67], against a national target of 18% by 2050[68]. The percentage of forest cover for Ireland as a whole currently stands at 11.6%, one of the lowest figures in the EU.

As noted in Theme 1, saltmarsh and wetland habitat has been lost and degraded. This has reduced the capacity of these habitats to sequester and store carbon.

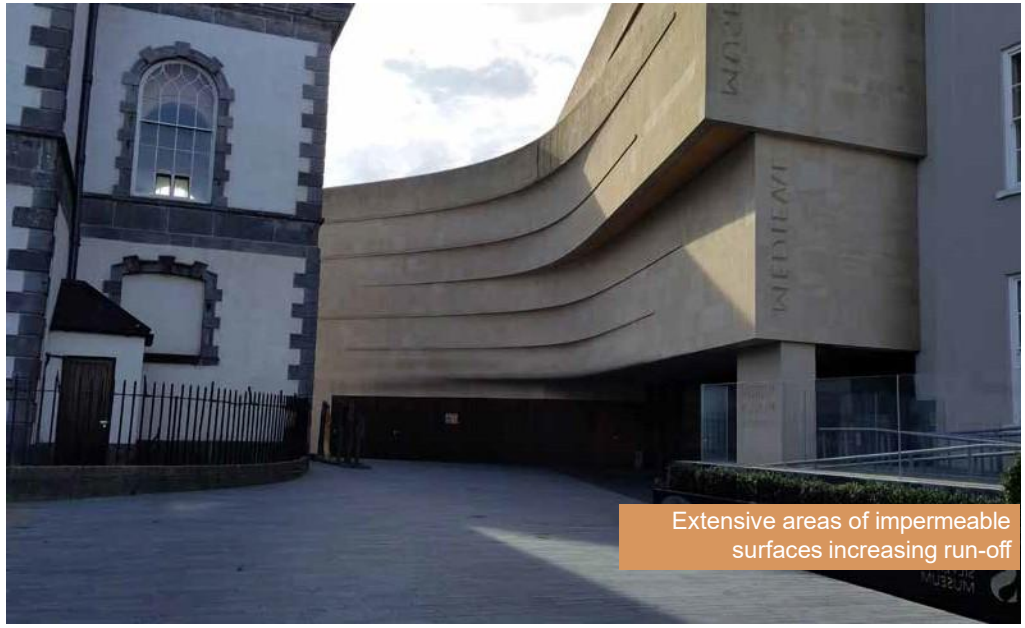
Flood risk

Theme 4 provides further detail on the role of Waterford’s BGI network in providing resilience to flood risk, which is growing as a result of climate change and is hampered by extensive levels of impermeable surfaces within urbanised areas of Waterford.

In addition to their role mitigating climate change, saltmarsh and wetland habitats can also help adapt to changing rainfall patterns by providing flood and drought resilience.

Urban cooling

Stakeholders engaged during this Strategy highlighted the scarcity of urban greening within the city centre, particularly street tree coverage, which is limiting opportunities for urban cooling.



Extensive areas of impermeable surfaces increasing run-off

Reliance on cars, increasing greenhouse gas emissions and encouraging impermeable surfaces

Summary of key challenges

- Active travel networks in the area are fragmented and should be enhanced to reduce the reliance on vehicular travel, as part of wider decarbonisation plans. This should be done in conjunction with enhanced and more frequent public transport service.
- Loss of tree cover between 2001 and 2022 and the need to increase tree planting to move toward nationally set targets.
- Flood risk set continue to increase in frequency and intensity. High levels of impermeable surfacing across the city contribute to this risk.
- Temperatures will continue to rise, especially in urban areas, and the lack of urban greening features limits opportunities for urban cooling and shading.

Summary of emerging opportunities

- Increase tree cover by creating urban woodland areas that focus on native species of local provenance. By planting in areas where trees can mature, more carbon can be sequestered whilst providing long-lasting habitat for biodiversity.
- Conserving, enhancing and restoring wetland habitats, including at Kilbarry and Ballygunner, which can store carbon helping to mitigate climate change, and provide resilience to increasing climate extremes including the risk of flooding and drought to boost Waterford MASP's 'carbon sink'.
- Implement BGI of all scales in all urbanised areas to reduce the impacts of flooding, taking inspiration from "sponge city" concepts (see **Theme 4**).
- Improve connectivity of greenways with wider active travel networks to help tackle car dependency.
- Introduce more street trees throughout all urbanised areas to aid with urban cooling. Ensure sufficient soil quality and water availability for trees to mature, reducing replacement and/or mortality.
- Incorporation of tree planting as a standard measure in Active Travel Programmes.
- Incorporate protections for street trees as they mature, with the goal to maximise retention of street trees to full maturity.

PART 2: ACTION PLAN FOR THE FUTURE

Chapter 4: Strategic Priorities

The 5 Strategic Priorities

The five Strategic Priorities set out within this Action Plan respond directly to needs identified by the Strategy and set out key areas of focus which should be followed throughout the development of Waterford MASP's BGI network.

These priorities can be used to bolster the BGI network and provide connectivity between the spatial projects identified in Chapter 5. Some maps have been provided to indicate where these strategic links may best be prioritised. However, there will be an element of 'opportunistic' planning needed, where these priorities help connect BGI over time, as opportunities for implementing these priorities present themselves.

These priorities also act as guidance and principles to follow when taking forward any of the Strategic Projects or other BGI initiatives anywhere within the Waterford MASP, to create a high quality network of BGI across the study area. As well as key principles and steps to follow, they signpost to further guidance and provide case studies of where these priorities have been taken forward elsewhere.

These priorities can be integrated into many projects, and can be implemented in small 'quick win' projects.

These priorities should be designed and implemented in tandem across the MASP to provide ecological connectivity and connectivity for people.

The five priorities are:

- Walking and wheeling;
- Community ownership;
- Natural play;
- Wildlife corridors; and
- Water sensitive urban design.

Strategic Priority 1: Walking and wheeling

Delivering a well-connected network of walking and wheeling routes offers crucial opportunities for active travel and access nature for all as the population of Waterford MASP grows.

Multi-user route at Hamiltonhill Claypits, Glasgow, Scotland

Ireland's National Transport Agency has identified "active travel" as a policy priority and opportunity for promoting sustainable transport and reducing carbon emissions. This has included a focus on implementing a nationwide network of blueways and greenways (see Strategic Project 3).

While the delivery of 'hard' cycling infrastructure as part of highways is the responsibility of transport authorities, these routes also form an important part of the BGI network and provide connectivity between built-up areas and natural landscapes. As such, they should incorporate key BGI principles in order to maximise their value.

Benefits

Promote alternative travel options to private cars, reducing transport related carbon emissions.

Encourage physical activity through walking and cycling, enhancing the health and wellbeing benefits that physical activity promotes.

Encourage social interactions to and from key destinations, promoting a sense of community.

Key principles

- As part of route planning, it will be important to link together existing green spaces as 'key destinations', providing a network of green links across Waterford MASP and support the concept of 20-minute neighbourhoods.
- Promote active travel by creating safe, direct, attractive routes for people, through walking and wheeling between key destinations, including homes, places of work, schools, shops and other amenities.
- Reduce hard infrastructure and impermeable surfaces to repurpose roads and car parks as active spaces, in line with a reduction in car dependency.
- Sustrans provides guidance for the design of traffic-free routes, through existing natural spaces, including surfacing and width requirement to maximise accessibility.
- Retrofitting planting along existing walking and cycling routes can improve air quality, provide shading and encourage greater use. Guidance is available on street trees and managing roadside trees.
- Active travel infrastructure should be designed to retain habitats for protected species. Guidance for this provided by Irish Rail.

Green Cycle Routes, Copenhagen

Copenhagen has retrofitted a network of quiet, green cycle routes across the city as an alternative to the cycle routes along highways. The network, consisting of 24 routes covering 58km, has been designed to include wide paths and attractive environments for a more relaxed commuting or recreational experience. Establishing the network has led to an increase in the number of people walking and cycling, as well as improvements to general health as a reported increase in the appreciation of local habitats.

The Harbour Circle, Copenhagen (c) Daniel Rasmussen

Next Steps

- **Assigning responsibility:** Location of new walking and wheeling routes led by transport / active travel teams, with input from biodiversity officers for the design of green routes.
- **Locating:** Walking and wheeling routes should be strategically planned alongside other transport routes, focussing on providing links from dense urban areas towards important destination sites, including the city centre, high streets, schools, workplaces and community centres. Ensuring that a joined up network of routes is planned will be essential. Location of these features should also include connections to the Greenway, new pedestrian bridge across the Suir, and potential restoration of the Red Iron Bridge.
- **Implementation:** The following considerations will help establish a successful green walking and wheeling network:
  - Suitable paths should be fully accessible for walkers, wheelchairs and bicycles, including being an appropriate width to allow users to pass each other. Clear signage should indicate which paths are fully accessible to help plan routes.
  - Suitable paths surfaces which allow access for wheelchair and pushchair users and in all weathers. Permeable path options should be explored, reducing surface water runoff that can increase flood risk.
  - Nature-based technology also includes luminescent path options paths which absorb sunlight during the day and emit it during the evening, creating a sense of safety. This option, and other sustainable lighting solutions would need to be carefully designed with local ecological knowledge to prevent disturbance to bat corridors.
  - Introduce appropriate wayfinding to ensure people can easily navigate the walking and wheeling routes to get from A to B. This should be mindful of differing access needs, for example ensuring large font, colour contrast and use of braille.
  - Include route-side vegetation to create healthy and attractive routes. This should be designed to suit the needs of the immediate area, for example, tree lines on the southern edge of exposed routes to provide shading or trees with small leaves and evergreen trees for absorbing air pollution alongside busy roads year-round. In some places, planters or low-level vegetation may be more appropriate to maintain site-lines and a sense of safety.
  - Additional facilities to support use of the route, such as covered bike parking close to homes, workplaces, shops and schools should also be includes. Where possible, new structures to support this should include green roofs.
  - Environmental assessments should be carried out by a qualified ecologist.
- **Maintenance and ongoing sustainability**: Routine maintenance will include cutting and trimming of vegetation to ensure paths are easily accessible. Litter and leaf picking along routes will ensure they are kept free from debris. Regular inspections of all paths will be required, and damaged surfaces or street furniture fixed or replaced.
- **Monitoring**: Frequent counts of users of routes should be undertaken, including exploring the possibility of using digital counts, or existing data (for example from Google maps or Strava) to understand how many people use the routes

Strategic Priority 2: Community ownership

Creating a toolkit to support community engagement with their outdoor spaces, helping to build a sense of ownership and meet community needs.

Ladygrove communal garden (Didcot, UK)

Community ownership of green spaces can offer an exciting, cost-effective way to create engaging greenspaces across cities and districts. In addition, this can upskill local communities, improve community cohesion, and create a sense of safety within greenspaces.

Key principles

- Neglected or abandoned greenspaces can be perceived as unsafe species within developments. Community ownership offers the opportunity to transform these to community assets. Areas important for urban biodiversity should be retained.
- Community ownership requires significant time and input from local communities, and should be supported by resources from the council to ensure long term success.
- It is important that community projects are inclusive of all community members, with opportunities for everyone to have their voice heard and contribute.
- Community ownership can also include engaging local people in elements of the design process for local developments and infrastructure, through co-creation and co-design.

Performing Parks, Essex (UK)

Funded by innovation agency Nesta, the "Performing Parks" project is an approach to collaboration between parks services and communities. It sought to replicate the successful Community Stewardship social enterprise model adopted by the Friends of Hardie Park in Essex. This involves groups taking on responsibility for funding, managing and maintaining their local parks.

Green alleys of Montreal (Canada)

In Montreal, a project to retrofit unused alleyways has resulted in a network of 346 "green alleys" across the city. Community engagement, citizen participation and ownership of the network has been crucial to the success of the project. An "éco-quartier" program helped implement the plans, through civic engagement and education.

Community use of green alleys in Montreal, Canada (c) Éco-quartier RPP

Benefits

Upskill communities and create spaces for interactions and socialisations, creating a sense of belonging.

Creating safe, outdoor spaces close to people's homes can help improve wellbeing.

Well-managed green spaces can include a greater range of habitats to support biodiverse species.

Next steps

- **Assigning responsibility:** Parks Management Teams and community outreach teams should be key partners in taking forward this priority.
- **Locating:** The focus of this priority should be on under-utilised amenity greenspace within residential areas, particularly in areas with higher socio-economic deprivation. Existing amenity grassland (including private gardens) against deprivation are shown in the map below. In particular, this indicates Larchville as a key priority area for this opportunity.
- **Implementation:** Consider implementing the following interventions:
  - An important first step will be a series of workshops with communities across Waterford MASP, to gauge interest and understand the challenges which prevent communities becoming involved in management and ownership of local green spaces. Recent guidance for Ireland provides advice on inclusive community engagement.
  - Establish a network of community groups where resources, training and ideas can be easily shared - with support from Council staff.
  - Identify 'community champion' roles. These may be voluntary or paid positions, who can support communities across Waterford MASP with setting up community groups, providing training requirements and running events.
  - In the city centre, where populations may be more transient, consider also working with local businesses to provide continuity in local management and ownership of green spaces.
  - Types of community projects which could be developed include community biodiversity gardens, including bug hotels, bat hotels and wildflowers, as well as food growing, such as orchards.
- **Maintenance and ongoing sustainability:** Day-to-day maintenance will be undertaken by the community, but inspections and support will be required to ensure spaces are safe and projects are running smoothly.
- **Monitoring:** Engagement with community groups should be undertaken to monitor how many people are involved, what successes and challenges they have faced, and if there are any demographic patterns in engaged participants.

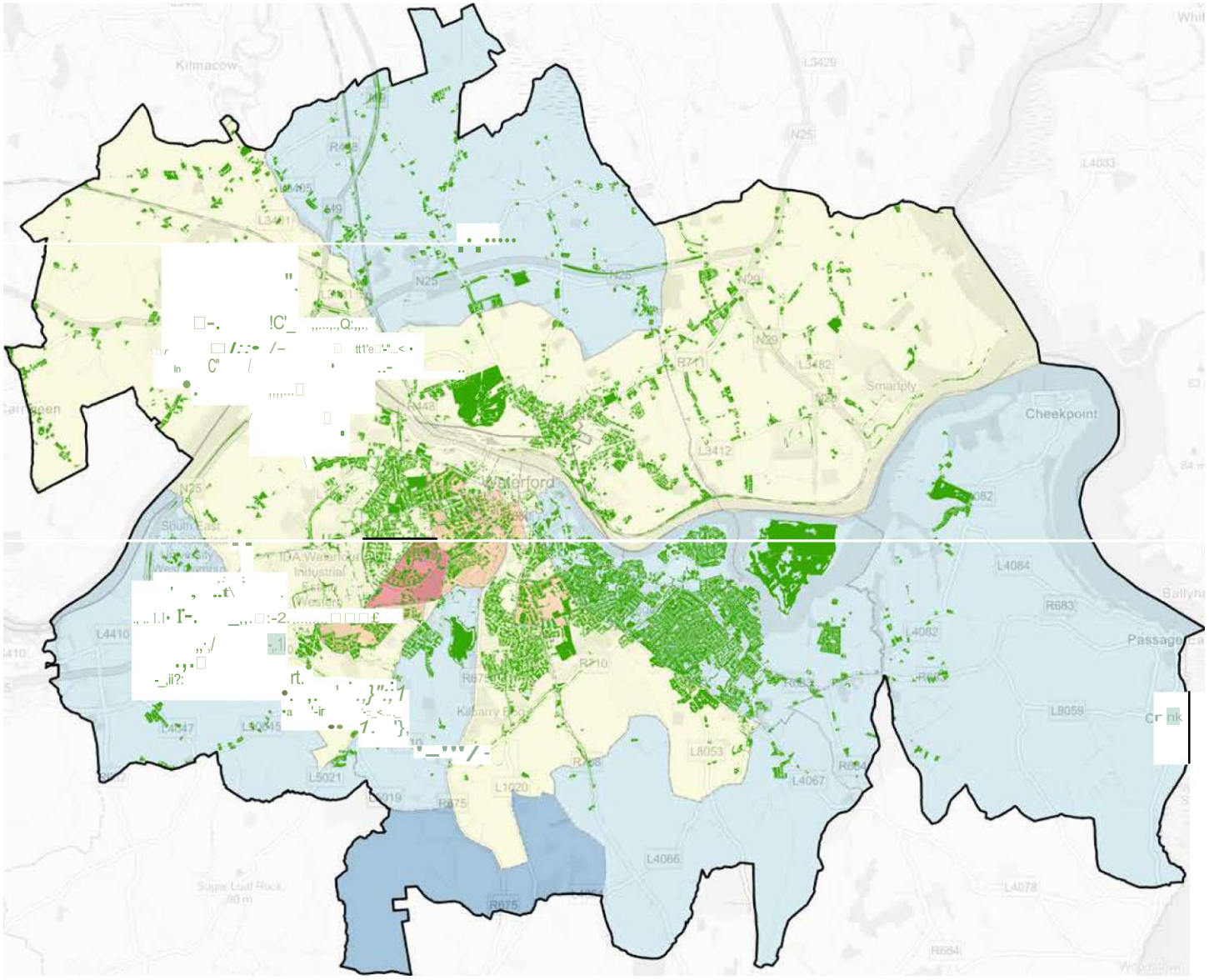


Figure 4.1: Opportunities for community ownership

D MASP boundary

- Amenity grassland - including private land and gardens*

Deprivation index (2022)

- Affluent
- Marginally above average
- Marginally below average
- Disadvantaged
- Very disadvantaged

*The amenity grassland data is derived from The National Land Cover Map of Ireland 2018, the full extent of which was not available for Waterford. Therefore, there may be more amenity grassland across the southern part of Waterford which is not reflected in this figure.

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Map scale 1:65,000 @ A3

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Strategic Priority 3: Natural play

All children and young people should have access to high quality play spaces, including opportunities for imaginative and social play and contact with nature.

Timber-based natural play at Tumbling Bay (LUC)

The UN Convention on the Rights of the Child includes Article 31 (Leisure, play and culture), which includes the right to engage in play and recreational activities appropriate to the age of the child. Ireland also has a National Play Policy which recognises the need to provide high-quality play standards for all. However Waterford MASP's play provision currently falls short of high quality, nature-based play for all.

Tumbling Bay, London (UK)

The Tumbling Bay playground, located in the Queen Elizabeth Olympic Park, has been designed to provide opportunities for adventure and to reflect the ecological heritage of the area. Play features have been designed to resemble and include natural features, included rock pools and trees. This fosters creativity and enhances connection to the natural environment. Experiential and interactive play includes water play, sand pits and aerial walkways. Diverse planting includes Scots pine, birch and gorse, which are integrated into the wider design.

Plaça d'en Baró, Barcelona (Spain)

The renovation of this plaza was co-created with input from local communities, children and students. Gender-mainstreaming was also at the heart of the park design. The resulting park incorporates natural features for shading and includes a sandpit for quieter play, a concrete space for active play and wooden blocks for relaxing and socialising. Coloured paving and furniture create a playful environment and interconnected areas with different purposes improves inclusivity.

Rest and play in Plaça d'en Baró (c) Conchi Berenguar Urrutia

Key principles

- Natural play can incorporate playful landscapes, play equipment using natural materials, and interaction with nature. This type of play incorporates an element of risk, encourages imaginative play and enhances connection with nature.
- Promote inclusion of children, young people and communities as part of the co-design and co-creation of playable spaces.
- Ensure opportunities for play are inclusive for all. This may include promoting non-sport based play and sensory play. It should also draw on guidance from Make Space for Girls on "what better looks like" for teenage girls in particular.
- Natural play should incorporate natural materials including timber, stone, water, sand and vegetation and promote connection and care for the natural world.

Next Steps

- Assigning responsibility: Collaboration between open space teams and public health should lead on provision of natural play.
- Locating: Natural play can be introduced to amenity greenspace and public realm. It is best located close to residences or schools, as near shops or areas of high footfall. Natural play is particularly valuable in areas of higher deprivation or where levels of physical activity in children is low. Figure 4.2 below shows the location of amenity grassland and schools to indicate where this intervention may best be prioritised.
- Implementation: Consider introducing the following natural play interventions within existing greenspace within residential development. This includes adding sensory play into existing housing estates, as well as designing such spaces into new developments:
  - In areas of woodland or trees, natural play can include leaving fallen logs and trees to promote climbing, agility and balance. Features could include balancing logs, stepping stones and rope ladders to help climb trees.
  - For younger children, provision of loose and moving parts, for example sand pits and water play promote social and sensory play. Twigs, leaves and bark can support outdoor construction play and support imaginary play, for example creation of 'fairy villages'.
  - Creative play, including musical instruments and art work can be included within areas of play.
  - For older children, areas of social seating, including in shaded, vegetation shelters can promote social play and provide safe spaces, away from traditional sport-based play.
  - Engage with schools, nurseries and child-care groups to promote safe use and establish ownership of spaces.
- **Maintenance:** Inclusion of natural play may require new management and maintenance regimes. Play England have produced a Natural Play Maintenance Guide which could be tailored to create guidance for managing play spaces in Waterford MASP. Maintenance of natural play areas will also need to comprise with health and safety guidelines including EN1176. There may be the opportunity to work with school, nursery, youth groups and community groups who could take on some of the maintenance of such spaces.
- **Monitoring:** Regular counts of the use of different types of imaginative play to assess their use, as well as more structured interviews or workshops with children will help monitor the success of natural play interventions and can guide development of future play spaces.

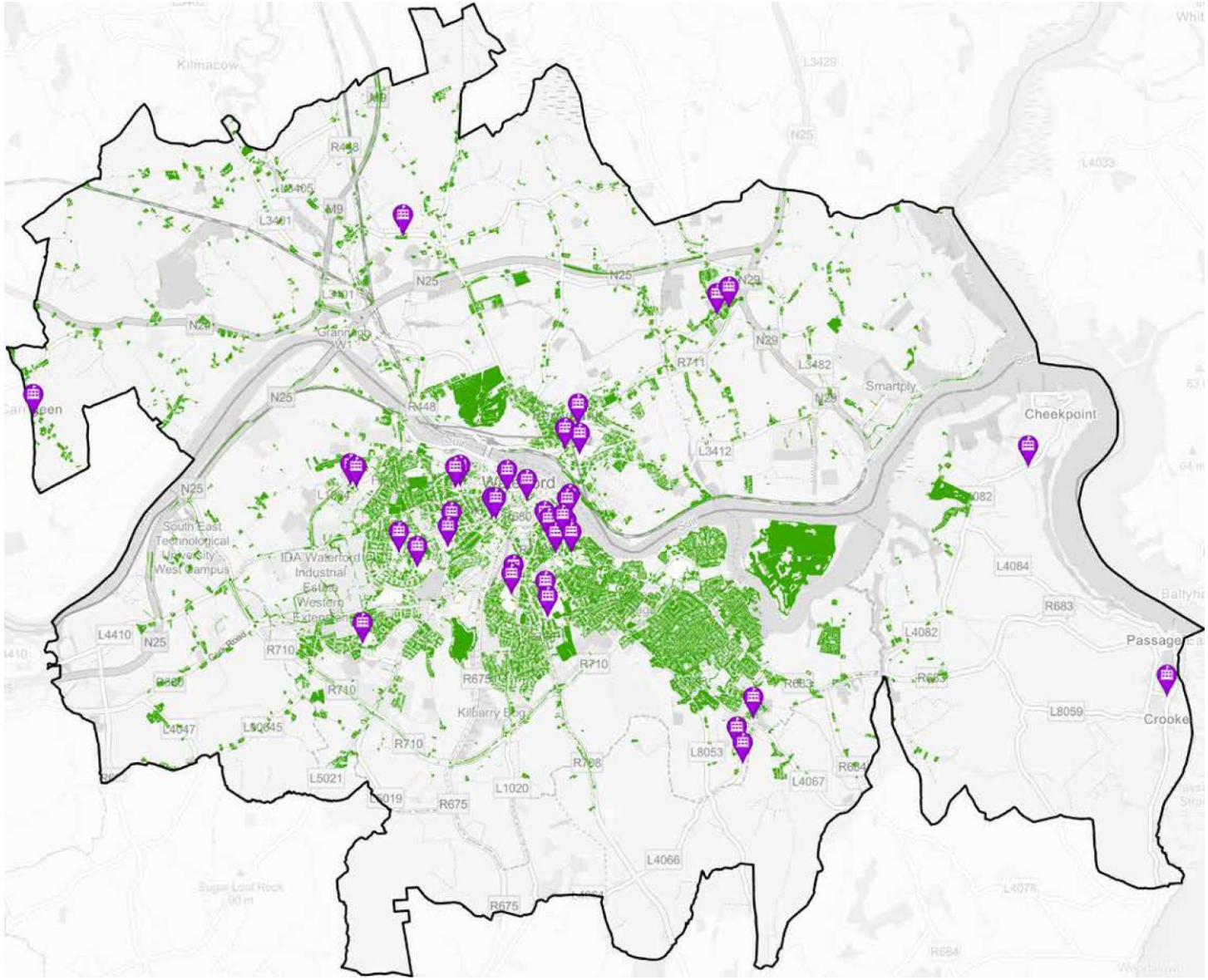
Benefits

Encourage opportunities for physical activities for children and young people.

Help connect children and young people to nature and appreciate their natural surroundings.

Create inclusive spaces where all children and young people feel a sense of belonging in their local environment.

Figure 4.2: Opportunities for natural play



D MASP boundary

- Amenity grassland - including private land and gardens*

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Strategic Priority 4: Wildlife Corridors

A network of biodiverse "wildlife corridors" connecting areas of existing ecological value and enhancing other areas incorporating existing green spaces, road verges, pocket parks and biodiverse urban green infrastructure across the City and wider Metropolitan Area.

Sheffield's 'grey to green' scheme lined with pollinator-rich habitats.

The Waterford MASP area and surrounding peri-urban landscape includes large areas of amenity and improved grasslands with low species-richness. These spaces offer significant opportunities for biodiversity enhancement, often at relatively low cost.

The Report of the Citizens' Assembly on Biodiversity Loss in Ireland (2023) found that pollinator planting in urban parks is an important aspect of planning for biodiversity within the urban and built environment. This principle can be expanded to include wildlife friendly management, hedgerow planting and woodland creation and pond creation. Diverse hedgerow species should incorporates a long flowering and fruiting season and nature friendly management of existing habitats to benefit a wide range of species beyond insects to include birds, bats, amphibians, reptiles and small mammals.

"Grey to Green", Sheffield (UK)

The city of Sheffield has embraced urban greening and transformed uninspired areas of the road network into biodiverse and attractive pocket parks, wildflower verges and active travel routes along the River Don.

The Grey to Green scheme helps nature thrive in the city centre - encouraging insects that have wide-reaching effects on the wider ecosystem, through both planting and soil.

"Wilding our Parks", Edinburgh (UK)

Since 2016, this project has introduced native wildflower meadows and naturalised grassland management within parks, amenity grassland in the Cramond Foreshore area of Edinburgh. The project has resulted in 12 new meadows, covering over 5000m^2. Interpretation boards educate visitors on the native wildflower seed mix and wider aims of the project.

Key principles

- To retain, enhance and expand important ecological and landscape features such as woodlands, hedgerows, treelines, rivers, streams, wetlands and grasslands as core components of existing wildlife corridors.
- Reinstate habitats of ecological value through restoring, rewilding and rewetting areas such as through restoring natural river meanders and riverbanks, rewilding areas of intensively managed habitat and rewetting reclaimed wetlands which were previously infilled for development.
- To aid movement and dispersal of wildlife across the natural, semi-natural, agricultural and urban landscape of the MASP.
- To support native plant and animal species and encourage corridors for their dispersal and movement by providing access to a larger area for foraging and shelter across the seasons, and in the longer-term increasing genetic diversity and resilience. Create a series of connected habitat corridors which extend from core habitat areas and pNHAs, spanning the urban city centre and beyond into the surrounding agricultural landscape.
- Work with and restore natural processes to restore dynamic habitat mosaics, which support rich assemblages of plant and animal species.

Benefits

Improve connectivity for species and support biodiversity.

Enhance functioning of natural processes to create resilient habitats.

Create attractive environments that create a sense of place.

Next steps

- **Assigning responsibility:** Led by WCCC Biodiversity Officer in collaboration with Parks and Open Spaces Team.
- **Locating:** Wildlife friendly corridors can be created through relatively small, simple, low cost enhancements to the cities' network of urban parks, greenspaces, road verges and railway sidings, schools, hospitals, community facilities and council owned and managed land. Locations of hedgerows, watercourses and treelines are shown on Figure 4.3 below. These can be used as starting points for locating wildlife corridors.
- **Implementation:** Consider implementing the following wildlife corridor interventions:
  - Enhance habitats of lower ecological value through incorporating locally appropriate native and naturalised species, which offer nectar and pollen sources for a range of insects year-round and structural complexity to offer roosting, nesting, foraging and shelter to a wide range of wildlife. Introducing ponds, hedgerows, trees and small woodlands increases habitat richness and encourages biodiversity. Follow best practice guidance such as the All Ireland Pollinator Plan's Ecological Corridors for Pollinators .
  - Increase connectivity of habitats through expanding core habitats, providing stepping stone habitats and removing physical barriers or providing alternative routes where these prevent species movement. Alternative routes such as green bridges across road and rail infrastructure or in-channel design features for otters, fish and waterbirds to navigate past weirs, dams and culverts.
  - De-paving areas of hardstanding especially where these lie within surface water flood risk zones and there is opportunity for delivering multifunctional blue and green infrastructure such as Sustainable Urban Drainage Systems (SuDS). De-paving provides additional stepping stone habitats, which improves ecological permeability. Follow best practice methods provided by ReGreen and approaches for identifying areas and successful re-greening and re-naturing areas.
  - Wildlife friendly corridors which extend into the surrounding farmed landscape through simple alterations to farming practices. Restore semi-natural habitats in areas of low productivity, expand riparian habitat along farm edges, create wildlife margins through sowing wildflower or bird seed mixes, plant in field trees and shelterbelt woodlands. Opportunities for delivering combined benefits in terms of water retention as a result of habitat restoration are provided within the report on Natural Water Retention Measures Evidence and Opportunities for use in Ireland .
  - Create wildlife corridors in greenspaces and areas of open space, applying an access hierarchy to open space design and management. Ensure that there are areas undisturbed for nature, whilst providing other areas for 'active access' and 'exploring nature'. Areas for 'exploring nature' should provide more of a natural feel and may buffer those core habitats which should be left undisturbed, without exposing sensitive species or habitats to high levels of recreational access. Access management can be achieved through cutting paths through tall grass, laying dead hedge boundaries, or laying deadwood along footpath edges to prevent straying and the creation of desire lines.
- **Maintenance and ongoing sustainability:**
  - Introduce altered management practices, including "relaxed mowing" of amenity grassland or rotational management of meadows and hedgerows to increase species diversity and structural complexity drawing on guidance within the All-Ireland Pollinator Plan - which includes pollinator-friendly management and guidance for transport corridors and sports clubs.
  - Deliver community engagement on nature friendly management practices. For example when managing wildflower meadows and tall tussocky grasslands educate on the stages of wildflower meadow establishment, the importance of delaying cut until flowers have set seed and embracing any perceived "messiness" to benefit wildlife including insects, birds, bats and small mammals. Engagement can be achieved via information boards, online on the WCCC and KCC Parks and Open Spaces website and through schools, businesses and community groups.
- **Monitoring:** Develop a monitoring programme using citizen science, in association with Waterford MASP's Biodiversity Officer and National Biodiversity Data Centre. Use data to inform management. Species monitoring could focus on those charismatic species such as flowering plants, butterflies and birds, which attract most public interest.

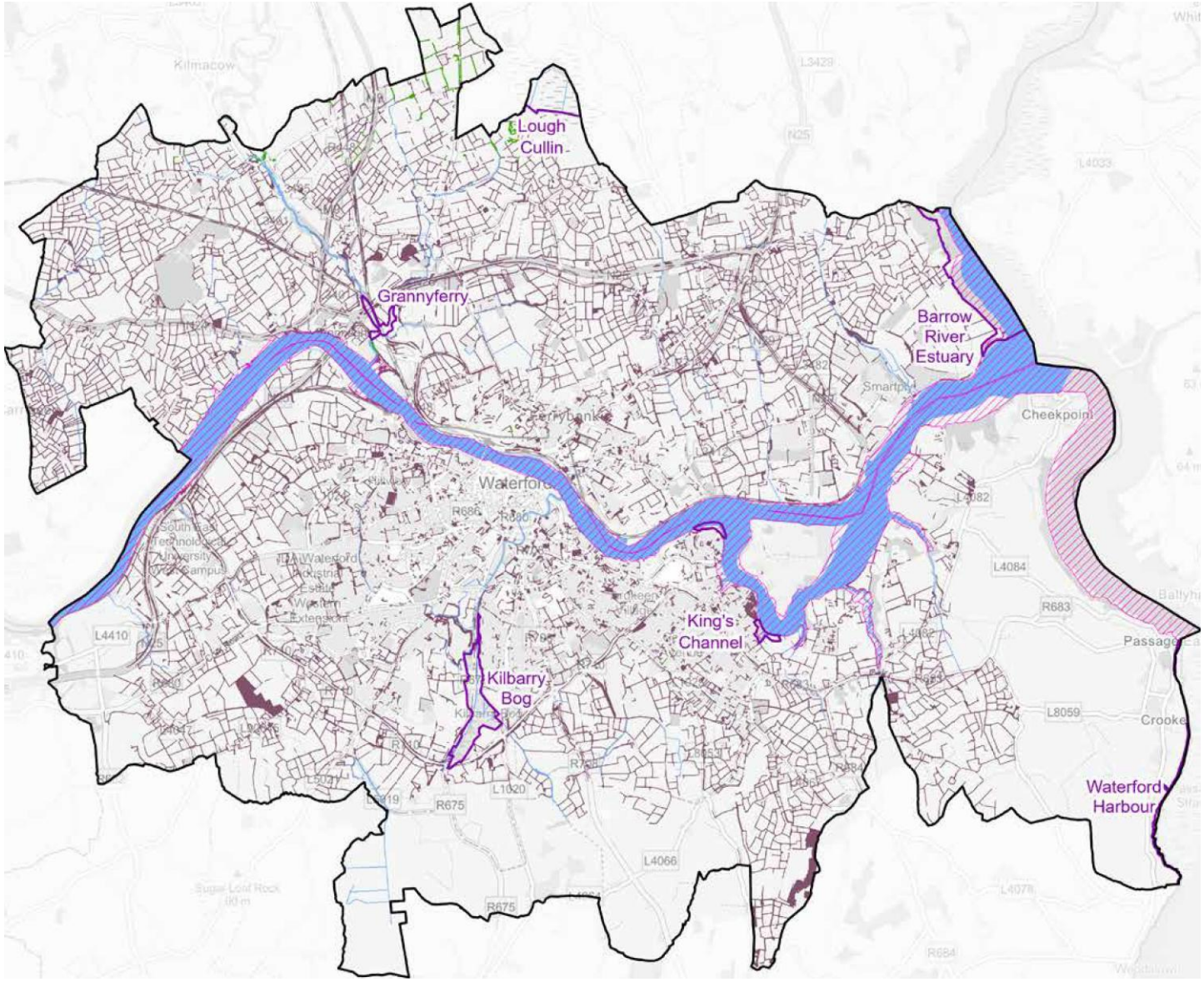

Figure 4.3: Opportunities for wildlife corridors

D MASP boundary

D Proposed Natural Heritage Area

Special Area of Conservation

The National Land Cover Map 2018*

- Hedgerows - including non-native ornamental planing

Rivers and streams

-Treelines

'The National Land Cover Map of Ireland 2018 data was not available for the full extent of Waterford, therefore, there may be more land cover features across the southern part of Waterford which is not reflected in this figure.

0 1 5 3km

Map scale 1:65,000 @ A3

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Strategic Priority 5: Water sensitive urban design

Retrofitting of sustainable drainage systems (SuDS) features in prioritised areas across the city centre along with the inclusion of SuDS into all current and future developments.

Rummelsburg (Berlin), an example of applying these principles at the neighbourhood scale

SuDS principles focus around increasing urban flood resilience and advocating for the use of natural drainage where possible, holding the water in the landscape rather than flushing it away down drains. This type of nature-based approach to SuDS is promoted internationally by the International Union for Conservation (IUCN) and supported by the EU's Green Deal. Implementation of these principles at scale across Waterford could be transformative in addressing climate resilience challenges across the metropolitan area.

Key principles

- Utilise SuDS development guidance such as 'Planning for Watercourse in the Urban Environment'[69], developed by Inland Fisheries Ireland CIRIA SuDS manual.
- Implementation of SuDS to all relevant local authority work practices and as a key feature in the relevant development plans. Refer to Implementation of Urban Nature based Solutions Guidance for Planners, developers and agents (LAWPRO 2024.)
- Analysis of data should be used to identify priority locations where surface water flood risk overlaps with heightened socio-economic deprivation - with initial pilot projects targeted here. In particular, there may be opportunities within larger scale commercial and industrial development, for example at Belview Port and Ballynaneashagh.
- Explore a full range of features, including permeable paving, SuDS tree pits, rain gardens, swales, green/brown roofs, living walls and detention basins.

Green roof at Ballyogan Operations Centre (County Dublin)

The ambitious Operations and Maintenance depot at Ballyogan is an example of a new development incorporating SuDS and nature-based solutions into the forefront of it's design. The design incorporates a green roof to address stormwater runoff and a grassed swale with sedum planting to encourage infiltration of surface water. This reduces the volume of water entering the Ballyogan stream, both easing flood risk and improving water quality locally.

Cobbled rumples channel water from roads to the rain garden

Rummelsburg, Berlin, Germany

Rummelsburg is a neighbourhood of east Berlin where an early version of the 'sponge city' approach has being applied. Built between 1999 and 2000, the city was designed to absorb rainwater through a series of green infrastructural projects that 'keep the water in the city', rather than an impermeable system where rainwater runs directly into storm drains. This nature-based solution to flood risk and water management allows the city to act like a sponge, and helps filter water entering the river. Interventions include green roofs, deep permeable soils under buildings and pavements and a network of swales. The entire development is free from conventional piped drainage systems.

Rain chains reduce speed of runoff from buildings reaching the ground and reducing erosional impact on vegetation

Next steps

- **Assigning responsibility:** There is a need to assign a key stakeholder or team in Waterford MASP to manage, implement and maintain SuDS features within new developments and retrofitting of past developments.
- **Locating:** Pick appropriate and functional locations for retrofitting of SuDS which may include low-lying unvegetated areas of the city centre, areas of high groundwater vulnerability or close to Irish water foul water discharge points along the South Quays car park and St. John's river walkway.
- **Implementation:** Consider implementing the following SuDS interventions:
  - Rain gardens comprising vegetated shallow depressions designed to filter and slow water entering the ground. They are most effective where there is sufficient space for landscaping such as in commercial and residential streets.
  - Swales consist of shallow vegetated or gravel-filled channels designed to capture, slow and store stormwater run-off most effectively sited next to large impermeable surfaces such as roads and car parks.
  - Permeable pavements comprise surfaces specially designed to allow water to infiltrate through them, preventing excess surface run-off. They are most effectively sited along pedestrian and cycle pathways.
  - Green roofs form a vegetated layer above roofing material to absorb and manage run-off, suitable for buildings with flat or gently sloped roofs and where the structural load can support the added weight of soil and vegetation. They are especially beneficial in densely built environments where green space is limited.
  - Some further SuDS interventions could also include the addition of tree pits along roads and walkways and greening of bus shelter roofs which has additional visual and ecological benefits.
- **Maintenance and ongoing sustainability**: Routine maintenance will involve cleaning, replanting and repairing SuDS features. Regular checks to ensure there are no blockages will be required. Reactive maintenance will also be required, addressing issues involved during inspections.
- **Monitoring**: Monitoring of water levels stored within SuDS.

Benefits

Filtration of surface water, improving water quality of runoff across the Waterford MASP, including into water bodies.

Storing water reducing flood risk and creating drought resilience, which are both expected to increase with climate change.

Wet habitats create important habitats for species and provide natural spaces within urban environments.

Chapter 5: Strategic Projects

10 Strategic Projects

The Action Plan also includes a series of ten Strategic Projects, which address particular areas of land. These projects respond to the needs identified by the Strategy, while making significant contributions to the wider placemaking aims for Waterford MASP as set out in the Strategic Plan. Some of these would rely on acquisition of land and should be considered as “Partnership Projects” to be developed in collaboration with land owners.

Each Strategic Project is given a 2-3 page profile, structured as follows.

- A brief vision.
- Justification for why the project has been identified.
- Key elements of the project.
- Delivery guidance and partners.
- Suggested next steps for delivery.
- Inspiration from elsewhere.
- An overview of the BGI benefits delivered.

These projects often incorporate multiple mechanisms from the strategic priorities shown in Chapter 4. These profiles should not be interpreted as approved concept designs for a suite of projects. Instead they identify evidenced needs, set out key actions and illustrate possibilities.

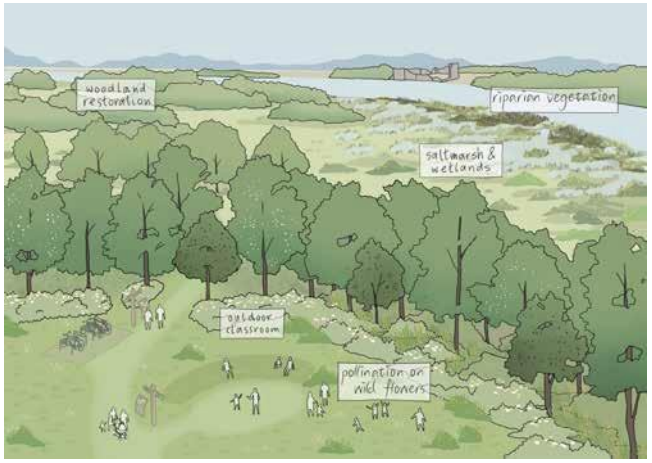
Necessarily, some of these projects are long-term endeavours which demand significant investment and are likely to be delivered in phases along a significant time scale. Where there are “quicker wins” within strategic projects these have been identified.

The Nature-based Solutions Catalogue

The World Bank have produced a catalogue of Nature-based Solutions (NbS) to create urban resilience. Many of these strategic projects combine several of the NbS families into one project. These families include:

- Urban forests;
- River and stream renaturation;
- Building solutions;
- Open green spaces;
- Green corridors;
- Urban farming;
- Bioretention areas;
- Natural inland wetlands;
- Constructed inland wetlands; and
- River floodplains.

The catalogue should be consulted to get a sense of what each project might look like and for more information on delivery.



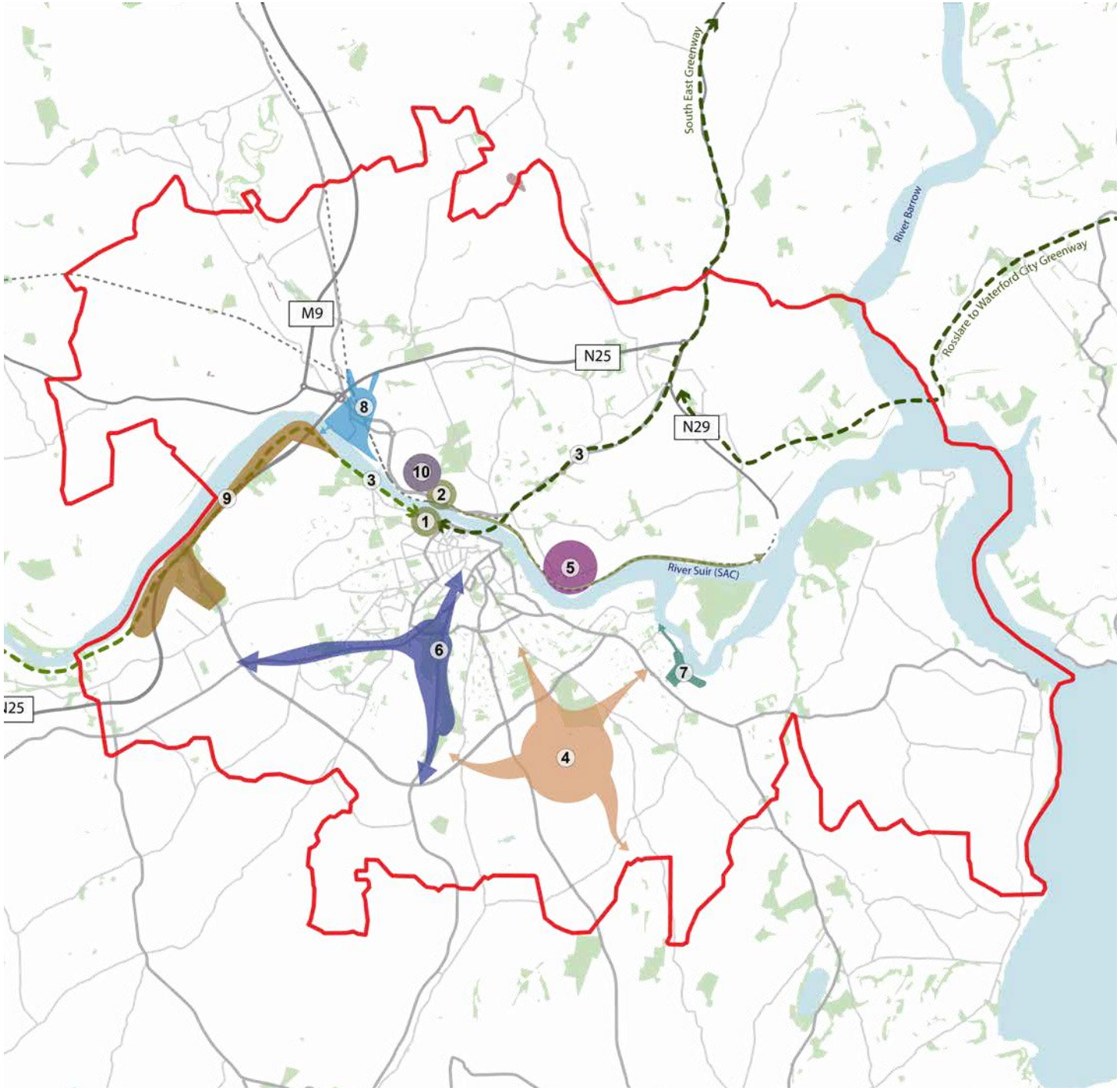


Figure 5.1: Strategic Projects

1. South Quays Linear Park
2. Greening North Quays
3. The Greenway
4. Williamstown Park
5. Ferrybank Park
6. St. Johns River to Kilbarry Bog and Nature Park
7. King's Channel wetland*
8. Grannyferry pNHA
9. Gracedieu Nature Park*
10. Ard Ri Park

Study Boundary
Water Bodies
Green Spaces

*Indicates project where landowner agreement will be required for the project to be realised.

Strategic Project 1: South Quays Linear Park

Transforming a hard landscaped, car-dominated expanse on the south bank of the Suir into a multifunctional, BGI-led area of public realm that to serve as the beating heart of the Waterford MASP 'living city' regeneration area and a fitting hub for the Waterford-Kilkenny Greenway.

Justification

Part 1 of the Strategy identified a significant deficit in urban greening in the central Waterford area and noted disconnect with the River Suir corridor. This is combined with challenging high street conditions, pointing to a need for focus on "experience" over pure retail-led strategy.

Excessive dominance of surface parking is a key detractor from sense of place, creating a poor sense of arrival for the flagship Waterford-Kilkenny Greenway and a missed opportunity for placemaking.

The location of this opportunity enhances BGI assets along the key natural corridor along the River Suir, connecting to a wider network of BGI in the Waterford city centre.

Benefits

- Create a fitting "arrival point" for the Waterford Greenway, offering amenity greenspace to encourage greater use of the greenway and supporting the new river crossing.
- Create an outdoor space to promote physical activity and allow people to relax in nature, improving wellbeing.
- Provide a boost to the visitor economy, bring in footfall and providing opportunities for local businesses.
- Provide nature-based solutions to increase climate resilience to flooding and provide shading.
- Provide spaces for water retention, slowing and filtering surface water run-off into the River Suir.
- Enhance riverine habitats along the Suir and promote awareness of the SAC.

Current state of South Quays - dominated by hard surfaces and car parking

Illustrative image of completed South Quays linear park

Key Elements

Riverside park: Phased transformation of the South Quays from a car-dominated expanse into a linear park which could accommodate both blue and green features, as well as 'street food' type traders as food and drink outlets. Design of the existing hard-standing platform over the river that serves as the quays could be designed similar to a green roof, with appropriate membranes and soil substrates to support vegetation, including trees. As a more ambitious opportunity, long term transformation of the hard infrastructure of the quays into a naturalised river banks could be explored.

Greenway hub: Creation of a gateway / hub for the Waterford Greenway and seamless link to the new walking and cycling bridge. This could incorporate social enterprises including bike hire and a café. Built infrastructure associated with this should incorporate green roof and green wall elements, including innovate technology such as the ceramic green wall or grow tile.

Recreational Amenities: Flagship natural play features to attract footfall and shape a truly multi-generational space (see **Strategic Priority: Natural Play**). Outdoor games provision could include bowls and chess - taking inspiration from chess-playing options within public realm at Waterford's Viking Triangle. The space should also include high quality social seating to create dwell spaces.

NbS catalogue solutions to include:

- Open green spaces
- Building Solutions

Delivery Guidance

- A phased approach is recommended when delivering this opportunity, in line with the roll-out of wider transport/movement initiatives.
- Temporary, event-focussed 'pilot' projects could be considered, where parts of the waterfront are closed to parking and reactivated through temporary features (a key message from our stakeholder engagement was that success here will require the bold freeing-up of land from parking, but noted that it will take time and skill to build the necessary behavioural change).
- Land ownership challenges around the Suir will need to be resolved, working with partners to map out an appropriate future for the space.
- A range of revenue-generating mechanisms should be explored to help to offset any income from parking. This could include events revenue and revenue from food/drink retailers and should take into account the wider economic benefits of reimagining the space.

Inspiration from elsewhere: Parc Rives de Seine, Paris, France

The Parc Rives de Seine in Paris was a bold move to transform a riverside traffic artery into a 2.5km riverside promenade. This formed part of a wider package of measures to make Paris less dominated by vehicle traffic and to make the city cleaner and greener. Prior to the creation of the park, 43,000 vehicles used the riverfront each day.

As proposed for South Quays, the new area became home to a range of local food outlets and some retail outlets, benefitting from the significant footfall created by the transformation.

The riverbank is now dotted with sports facilities, play areas for children of a range of ages and places to relax. Re-naturalised spaces help to counteract air and noise pollution and facilitate biodiversity, including 1,800 sqm of "floating gardens" with fruit trees, native plants, shrubs and grasses.

Prior to full closure to traffic, the waterfront was closed temporarily to traffic for the annual 'Paris Plages' event - an opportunity for people to "get a flavour" of what benefits a more human-scale riverbank could deliver for the city.

The reactivation of the Parc Rives de Seine in Paris.

Delivery Partners

- Waterford Council (including transport planning team)
- Waterford Port Company
- Uisce Éireann
- National Parks and Wildlife Service (NPWS)
- Local businesses
- Local community groups.

Next steps

- Liaise with landowners around the Suir to identify opportunities for transforming existing hard infrastructure into greenspace.
- Strategically plan for the phased delivery of the project in line with a wider shift in transport, releases areas of existing car park on the river front.
- Undertake workshops with communities to identify the types of facilities, amenities and characteristics they would like in the park. Engagement should take place with representatives from all communities, including younger and older people, people from different socio-economic backgrounds, different ethnicities and different genders. Ecological audit of baseline habitats and species to inform the design of the new park. These surveys would help identify any areas which would be more sensitive to recreational pressure or where there is the best opportunity for providing connectivity between existing woodland and wetland habitats.
- Work with landscape architects and other design professionals to lead the design and delivery of the new linear park. This process should include elements of co-design and co-creation with local communities and business owners.
- Ensure there is a robust Management Plan for green spaces throughout the site, detailing the management and maintenance provide safe and enjoyable access for visitors and maximise ecosystem functioning and ecological value.

Strategic Project 2: Greening North Quays

To set a benchmark for multifunctional, BGI-led development on the north banks of the Suir that matches the ambitions set out in the North Quays SPZ. Together with South Quays, this will form a new blue-green heart for an expanding city.

Justification

Waterford MASP's BGI and public realm network do not currently meet the required standards for a city seeking to attract higher value-added activities and offer the quality of life necessary to compete for talent in these sectors. The North Quays development offers an opportunity for a large-scale, transformational suite of schemes for the city which presents the possibility of showcasing a new type of development fit for the challenges of the 21st century.

The significant extent of paved surfaces in the city centre presents a significant challenge to future climate resilience and points to need for more nature-based solutions alongside any hard engineering solutions. There is also a need to increase tree planting to move toward nationally-set targets, as well as to combat the 'urban heat island' effect.

Key Elements

BGI-led suite of developments: The North Quays development should reflect, reaffirm and maximise the importance of the features proposed of green roofs, bioretention areas, rainwater harvesting, permeable surfacing and swales.

Green corridors: Inclusion of strategic woodland corridors, tree-lined streets and biodiverse grass verges created a connected network to provide ecological corridors towards the waterfront.

Active travel and connectivity: This should also include integrating with the River Suir Walkway along the North of the River from the North Quays to Belview Port. Additional connectivity to Strategic Project 1: South Quays and Strategic Project 10: Ard Rí Park should be explored.

NbS catalogue solutions to include

- Building solutions
- Bioretention

Image above and below: Development plans as set out in the North Quays SDZ Planning Scheme (2018)

Benefits

Improve riverine habitats along the Suir and promote awareness of the SAC.

Connect residential communities to nature.

Inspire integration of BGI and ecological design within other developments within Waterford MASP.

Reduce surface water runoff into the River Suir.

Delivery Guidance

- The planning team within the MASP area should draw on **A Planner's Check List for New Development** (at the end of this strategy) - including structuring early conversations on scheme design around BGI principles and provision.
- The key focus for delivery of 'urban greening' features should be on the BGI functions a scheme provides (as set out within the themes used for this Strategy) rather than for ornamental value. All BGI should be able to demonstrate it is multifunctional.
- Given significant flood risk within the North Quays area, SuDS (as nature-based solutions) will be a key component of design. Plans and implementation should follow the recommendations found in Strategic Objective 5: Water Sensitive Urban Design, as well as LAWPRO's 2024 guidance.
- Inclusion of green roofs and walls should be informed by The Green Roof Organisation (GRO)'s guidance on best practice for delivering various types of green roof.

Delivery Partners

- Private developers and scheme masterplanners
- Uisce Éireann
- Waterford Council
- National Parks and Wildlife Service (NPWS)

Next steps

- Liaise with those taking forward the plans set out in the North Quays SDZ Planning Scheme (2018), to understand the existing provision for BGI within development proposal and identify any potential areas to increase BGI provision.
- Detailed mapping of surface water flood risk within the development area and application of 'sponge city' principles into the SDZ area (see Strategic Priority 5). The development should aim to utilise a range of bioretention and sustainable drainage principles to reduce the need for traditional drainage throughout the development.
- Ensure there is a robust Management Plan for green spaces throughout the site, detailing the management and maintenance provide safe and enjoyable access for visitors and maximise ecosystem functioning and ecological value.
- Ensure key lessons learnt from securing BGI are documented at all stages of development, allowing this development to be used as an exemplar for securing BGI within all new development in Waterford MASP.

Inspiration from elsewhere: Vaux Riverside, Sunderland, England

The mixed-use Vaux development in Sunderland (UK) is a neighbourhood-scale regeneration project under construction on a former brewery site on the riverside, close to the city centre. The design was awarded a 'Building with Nature' award - a standard designed to put high-quality green infrastructure at the heart of placemaking in the UK. It was noted that the developer was committed to responding to the climate and ecological emergencies.

The existing site had low ecological value. As such, the scheme is set to demonstrate the potential of high-density development to contribute positively to biodiversity and nature's recovery, whilst delivering a high-quality, high-value scheme in an urban context. A climate resilience approach includes SuDS, planting selection for particulate interception and removal and biodiversity gains. A Landscape Management Plan sets out the detail of management agreements for post construction establishment.

Proposals for nature-rich public realm within the Vaux mixed use development (source: Building with Nature)

Strategic Project 3: The Greenway

Ensuring that the emerging and expanding network of greenways (around the “spine” of the Waterford-Kilkenny Greenway) provides multiple functions, is character-led, respects biodiversity and is closely integrated into the wider BGI network.

Justification

Part 1 of the Strategy highlighted evidence of inactive lifestyles among the local population, leading to health challenges. The greenway network forms a BGI “skeleton” which responds to this and promotes active travel and the opportunity to connect with nature. The wider walking and cycling network in Waterford MASP is fragmented and high quality connections to the greenway are often missing.

Key Elements

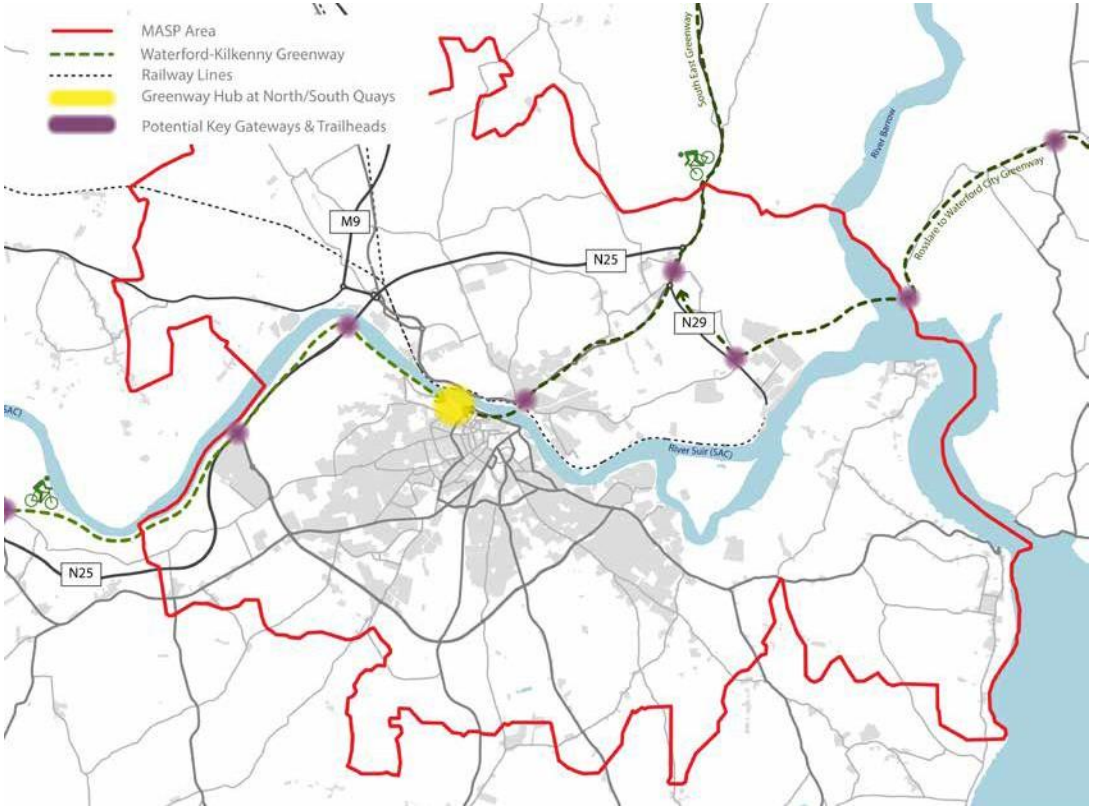
Neighbourhood links: Plan the network strategically to ensure that all routes are safe and well-connected to residential areas, schools and transit and activity hubs with crossings points and signage where necessary. The greenway network should seek to link together and sign to all relevant Strategic Projects along the route.

Cultural and heritage connections: Use the greenway to highlight local culture, art, history and historical landmarks, including through new outdoor art installations and interactive educational signage.

Biodiversity corridors: Restore habitat features, including native tree belts, wildflower verges and scrub along the route to provide habitat corridors for species. Minimise any adverse impacts on biodiversity networks through thoughtful design, in line with guidance.

Gateways and trailheads: Increase focus on key ‘gateways’ and trailhead features. These should reflect local identity, serve multiple functions and create a sense of place.

Hub at North/South Quays: Create a fitting arrival point for the Greenway in Waterford MASP’s urban core by integrating with transformed public realm within North Quays and South Quays (see Strategic Projects 1 and 2).



Greenway opportunity locations

NbS catalogue solutions to include

- Green corridors.

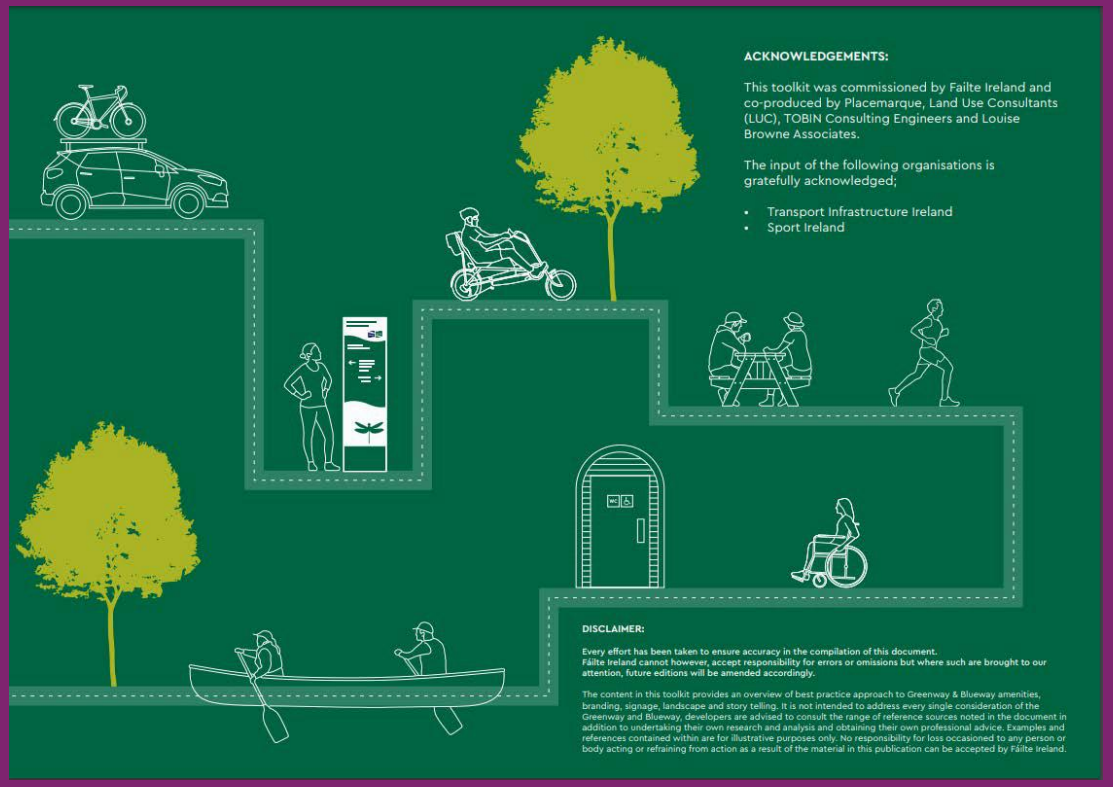
Delivery Partners

- Fáilte Ireland
- Waterford / Kilkenny Councils
- Local schools and community groups
- Local businesses
- National Parks and Wildlife Service (NPWS).

Next steps

- Audit current greenways to identify any potential areas for introducing softer, vegetated elements or a change in management to increase the ecological value of route-side vegetation.
- Engage with local communities to identify where local walking and cycling routes to join residential communities to the greenway would be best located.
- Work with local artists and SETU to identify and design interpretation to promote local heritage along the route of the Greenway.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to provide safe and enjoyable access for visitors and promote ecological connectivity.

Delivery guidance: Fáilte Ireland's Greenways and Blueways Toolkit (2023)



The Visitor Amenity Best Practice Toolkit for Greenways and Blueways provides guidance and solutions for new and existing Greenways in Ireland, looking beyond physical infrastructure alone to focus on the type of experience which users have. It provides an approach to design and implementation. In line with the aims of this Strategy, a key theme is respecting the landscape and encouraging biodiversity and sustainability.

Two particularly relevant 'location scenarios' from the toolkit for Waterford will be 'waterways and coastal' and 'urban edges'. It also places significant emphasis on consistent wayfinding, 'access for all' principles and natural play.

Section 3.17 covers 'biodiversity areas' and emphasis the need to "make space for nature" and to minimise the impact on biodiversity, including the use of board walks where appropriate. It also promotes nature-based solutions and information on environmental designations such as SACs and SPAs. Section 3.18 also promotes the use of SuDS along greenways (see Strategic Priority 5) to promote better water management among other benefits. These will all be important where sections of greenway in Waterford overlap with areas of heightened flood risk.

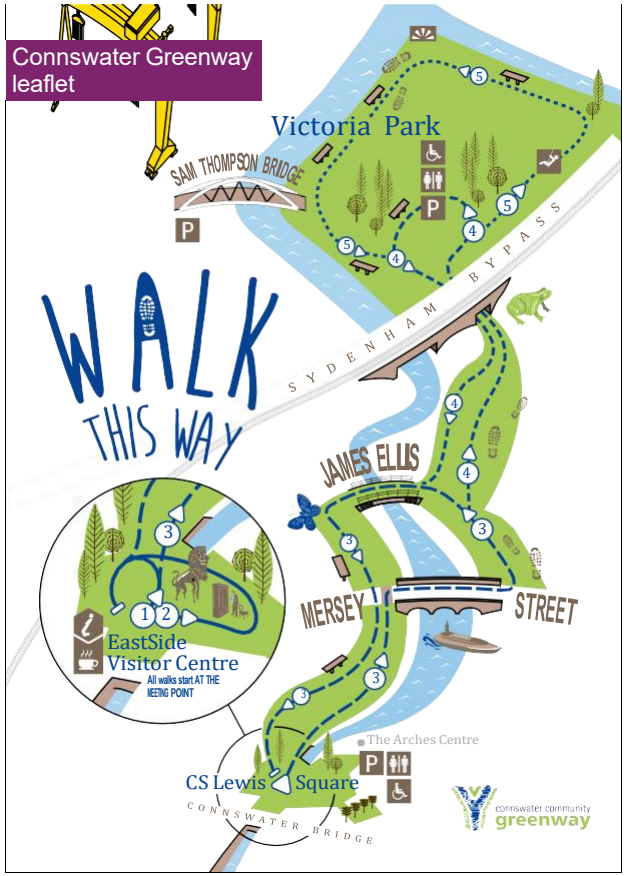
Inspiration from elsewhere: Connswater Community Greenway, Belfast, Northern Ireland

The Connswater Community Greenway is a 9km linear park through east Belfast providing 16km of foot and cycle paths and connecting key communities.

The active travel infrastructure includes 26 new of improved bridges and crossings over the Connswater, Knock and Loop Rivers. In addition, the project included cleaning 5km of rivers and creating a wildlife corridor from Belfast Lough to the Castlereagh Hills.

The project was delivered by EastSide Partnership. The mission of the project is to:

"Encourage the use and enjoyment of parks, gardens, rivers and off-road transport routes in east Belfast. To promote the sustainable planning, design, management, maintenance and improvement of green spaces for the benefit of the public"



Connswater Greenway leaflet

Benefits

- Reduce dependence on private cars, reducing travel related carbon emissions.
- Provide opportunities for physical activity and promote activity levels in local communities and for visitors.
- Create climate resilience along the route, including through shading and water storage.
- Increase wildlife connectivity along the Greenway.
- Provide separation between the Greenway and road network, reducing noise and air pollution.
- Enhance attractiveness of route in the city centre, supporting the visitor economy.
- Increase permeable surfaces along the Greenway.

Strategic Project 4: Williamstown Park

Delivering a high-quality, nature-rich destination park with facilities to attract people of all ages and interests, providing a ‘green lung’ on the edge of the urban area with green links reaching out into the rest of the city.

Justification

There is a recognised need to identify a strategic-scale open space within the metropolitan area, to relieve pressure on designated and sensitive natural spaces along the River Suir as a result of an expanding population.

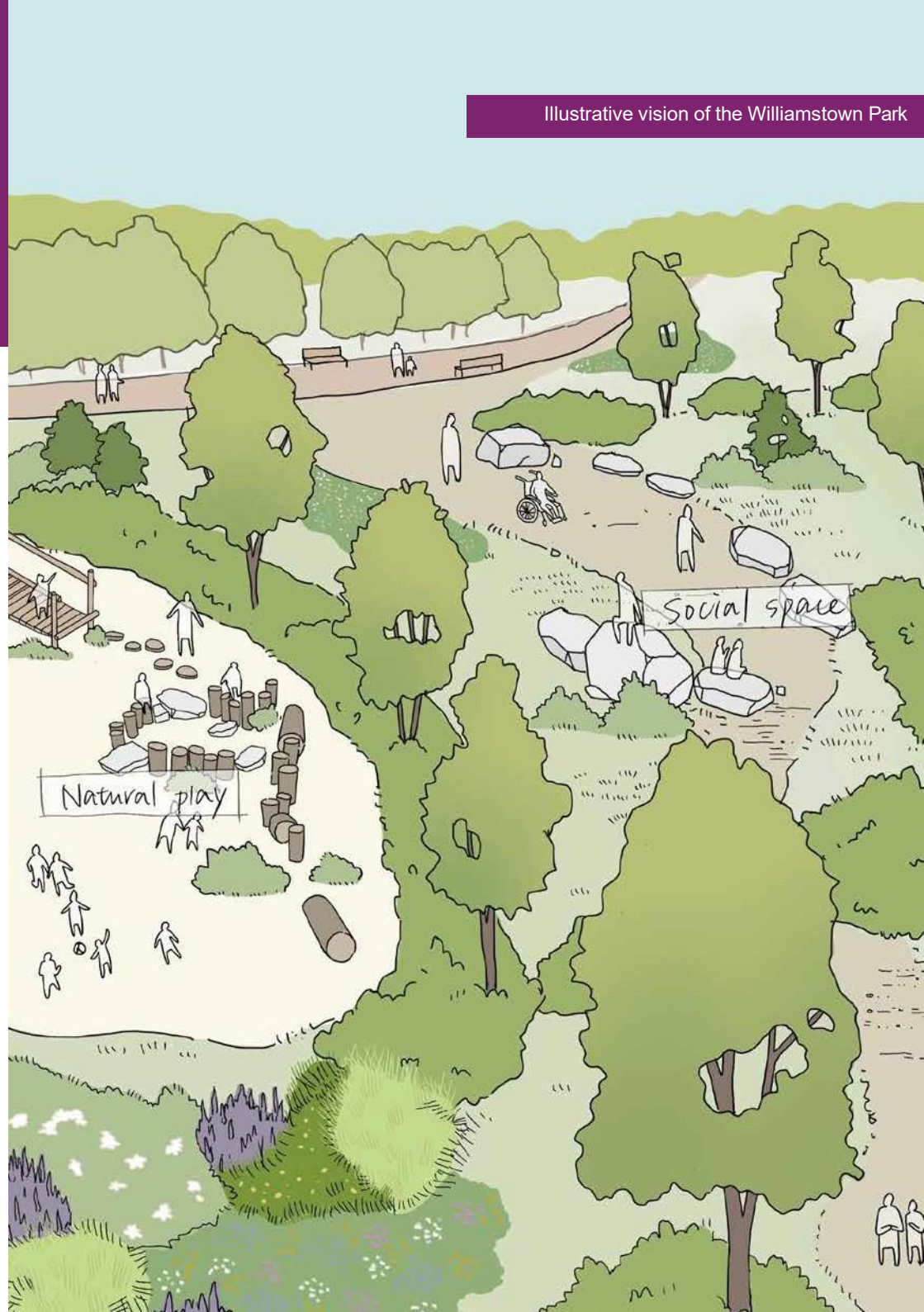
This location, given its close proximity to the city, the Williamstown golf club and neighbouring agricultural land provides an opportunity to deliver a park of scale with links to other significant amenities in the wider urban area. This also addresses identified socio-economic deprivation in pockets within the south-east of the city.

The southern fringe is a target area to help provide greater connectivity between Williamstown bog and Kings Channel, linking together blue assets. This will create a green lung in the eastern part of the city, with the opportunity to repurpose Williamstown Golf Course or part thereof to aid this.

Benefits

- Destination space offering attractive spaces for a range of users across communities to come together.
- Provides a safe and healthy environment, encouraging physical activity and supporting mental health and wellbeing.
- Opportunity to provide large-scale flood storage as part of ‘sponge city’ principles.
- Connects local communities with nature and provides more expansive habitats on the urban edge.
- Creates shaded, cool spaces for climate resilience and opportunity to introduce species tolerant to a changing climate.

Illustrative vision of the Williamstown Park



Key Elements

Welcoming for all: Clear arrival entrance offering visitor facilities for all users, including the potential for a visitors centre, café and/or community centre. Any built features should incorporate green features such as green roofs and walls, including innovate technology such as the ceramic green wall or grow tile.

Sustainable access: Wider strategic planning to ensure a range of access through walking, cycling and public transport from communities across the Waterford MASP. Limited car parking should also be offered to allow transport from further afield.

Spaces for children and young people: Inclusion of areas of natural play for children of all ages, including teenagers and young people. This could also include areas of social seating or 'hang out' spaces and performance areas as alternatives to more traditional sport-based play.

Natural habitats: Wooded areas creating areas of shading and more naturalistic areas to encourage people to connect with nature. These should include a diverse range of native species to promote biodiversity and create resilience. Relaxed management and mowing regimes should be encouraged to create areas of greater wildlife value within grassland areas by encouraging wildflower and scrub growth. More dense vegetation and scrub should be designed to discourage access to more sensitive parts of the park.

Walkways: Network of paths offering circular routes for a range of walking abilities, including paths suitable for wheelchairs and pushchairs and those offering a more challenging recreational offer.

Water storage: Inclusion of areas of bioretention, including swales and raingardens, as well as restoration of adjacent wetland areas to increase water storage within the park, providing flood and drought resilience and increasing urban cooling.

NbS catalogue solutions to include

- Open green spaces
- Bioretention areas.

Inspiration from elsewhere: Parc de la Beaujoire, Nantes, France

The 14-hectare Parc de la Beaujoire is a Green Flag award winning park, offering popular floral displays, panoramic views and a flagship play space for children. The park is easily accessible by foot or bike from the city centre and is adjacent to a wider walking route leading to Chantrerie. Rose bushes offer both visual interest and a sensory fragrant experience - perfumed rose competitions are voted on by the public, helping to engage local communities. The gardeners have been exploring different rose and tree species to help the park evolve to adapt to climate change. This has also included replanting trees to provide more shade.

Natural Play in Parc de la Beaujoire (Source Nantes, Nature et jardins)

Delivery Guidance

- Delivery of this strategic-scale green space is likely to require a multi-partner approach which brings together multiple funding streams. Innovative delivery and management mechanisms (such as the use of Trusts and social enterprises) could be explored.
- The Green Flag Award is the go-to criterion for assessing high quality parks internationally (there are currently over 100 in Ireland, including Kilbarry Nature Park) and could be a goal for this park. A guidance manual is available on how the award works and how to implement their criteria.
- EPA research has identified the importance of promoting health and wellbeing within green and blue spaces. This includes creating multi-sensory environments, planting which reduces noise and air pollution, and designing spaces which encourage physical activity.
- The Make Space for Girls campaign (based in the UK) highlights the need to create inclusive spaces which are welcoming to people from all walks of life. This includes guidance on creating safer parks. Whilst this is tailored to the needs of women and girls, it can also be used as a basis for creating inclusive parks for all.
- The Strategic Priorities within this Strategy on “natural play”, “community ownership” and “walking and wheeling” should all guide further design work for this open space.

Delivery Partners

- Waterford Council
- Tidy Towns Teams
- Healthy Waterford
- Sport Ireland
- Local businesses
- Local landowners.

Next steps

- Identify appropriate land on the urban edge of Waterford with sufficient space to provide a range of recreational facilities.
- Undertake workshops with communities to identify the types of facilities, amenities and characteristics they would like in the park. Engagement should take place with representatives from all communities, including younger and older people, people from different socio-economic backgrounds, different ethnicities and different genders. Ecological audit of baseline habitats and species to inform the design of the new park. These surveys would help identify any areas which would be more sensitive to recreational pressure or where there is the best opportunity for providing connectivity between existing woodland and wetland habitats.
- Work with landscape architects and other design professionals to lead the design and delivery of the new park. This process should include elements of co-design and co-creation with local communities.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to support healthy ecosystem functioning and provide safe and enjoyable access for visitors.

Strategic Project 5: Ferrybank Park

Creating a truly community-centred and multifunctional local park to serve the growing community around Ferrybank, connected to surrounding major development zones and the greenway network by high quality green links.

Justification

Expanding the population north of the River Suir will need to be accompanied by the provision of high quality recreational space for communities to come together. This will also need to address the identified poor provision of high quality play across study area and the desire for a stronger influence from local community groups on the evolution of green spaces and the wider BGI network.

This site occupies a strategic position along the Waterford-Kilkenny Greenway route that extends northwards from the 'living city' district in the urban core. The land is zoned as 'active open space' within the emerging Ferrybank-Belview Local Area Plan, providing an opportunity for the development of open recreational areas alongside playground facilities.

Key Elements

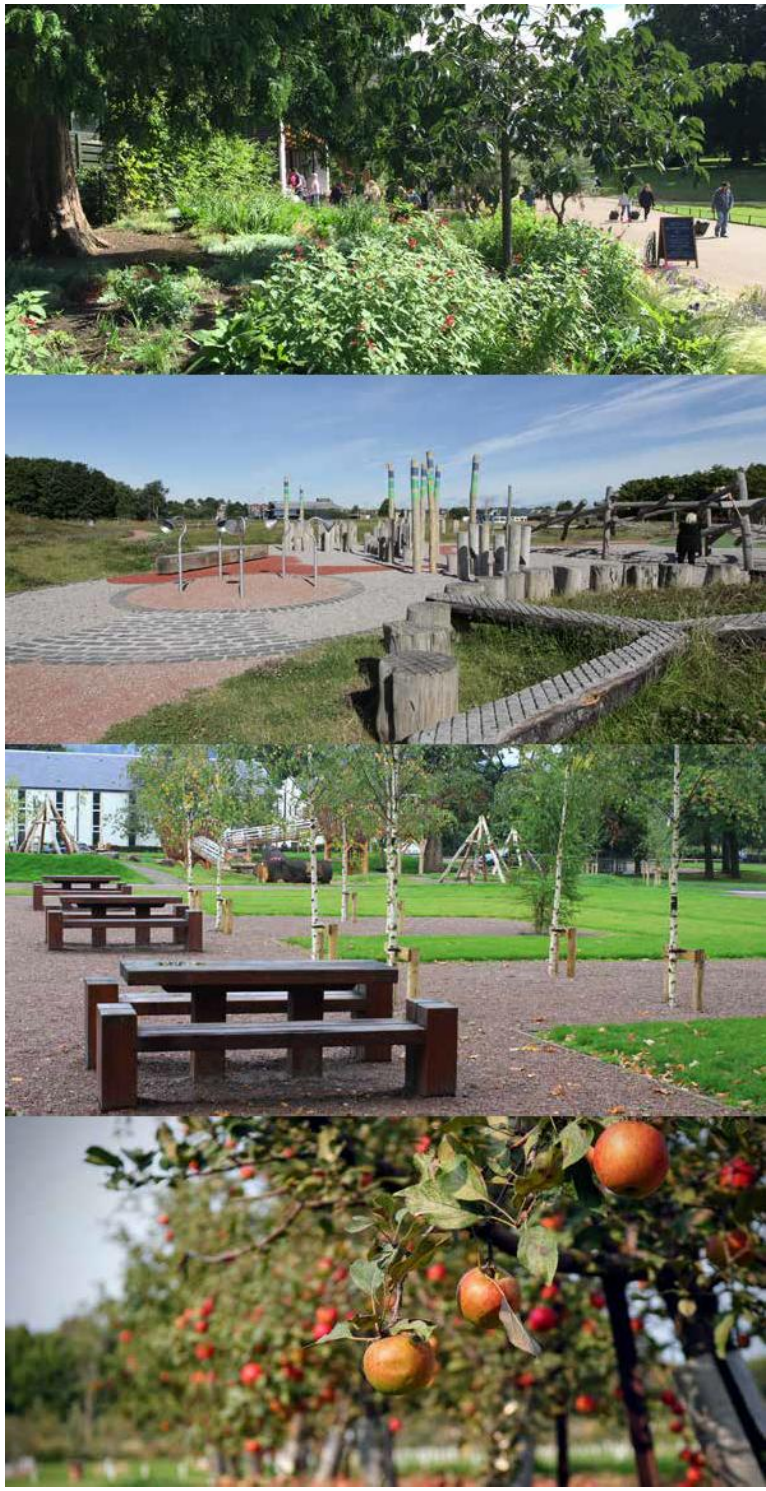
Community activities: In consultation with local communities, develop spaces which support community events, increase participation and foster healthy lifestyles. This should include exploration of urban farming initiatives including raised beds, orchards and other growing opportunities such as sensory gardens.

Social spaces: Additional interventions could include green community shelters, picnic areas or social seating. This could include multifunctional structures such as community growing and leisure pavilion.

Supporting physical activity: Inclusion of areas of natural play, green gym equipment and trim trails to promote physical activity amongst visitors of all ages. Seating should also be provided to offer opportunities for rest.

Space for nature: Inclusion of areas of natural habitat, including woodland copses, ponds, and wildflower grassland. Features such as bug hotels, bird boxes and bat boxes, as well as signage, can help engage visitors with natural features within the park.

Connected to the greenway: The park should act as a key 'node' along the greenway, with suitable walking routes between the park and the greenway.



Delivery Guidance

- The Traditional Orchards and Fruit Trees guidance (as an extension of the All-Ireland Pollinator Plan) is a comprehensive strategy to support planting and managing orchards, bees, pollinating insects, and biodiversity aiming to enhance landscape management for sustained biodiversity support.
- The Green Flag Award is globally recognised as the benchmark for evaluating the quality of parks. A guidebook is available which outlines their criteria and the process for achieving the award.
- The Make Space for Girls project is a charity focussed on designing outdoor spaces with girls in mind to increase a sense of belonging in the wider community and connectivity to nature.
- Community-led models for maintaining the new space at Ferrybank Community Park should be explored. This might involve local social enterprises (see case studies), trust models such as those used at Heeley Peoples' Park in Sheffield, or simply the establishment and support of a "Friends of" group for the new park.

Delivery Partners

- Kilkenny Council
- Tidy Towns teams
- Healthy Waterford
- Social enterprises involved in food growing and wellbeing programs
- Local businesses and communities.

NbS catalogue solutions to include

- Open Green Spaces
- Urban farming.

Next steps

- Undertake workshops with communities to identify the types of facilities, amenities and characteristics they would like in the park. Engagement should take place with representatives from all communities, including younger and older people, people from different socio-economic backgrounds, different ethnicities and different genders.
- Kilkenny Council will develop a plan for a high-quality community centred and multifunctional local park with a strong focus on recreation and biodiversity.
- Work with local communities to upskill local people and support community management of the park and growing areas in the longer term.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to provide safe and enjoyable access for visitors and support healthy ecosystem functioning.

Inspiration from elsewhere: Urban Orchard, Limerick

The Urban Orchard Project in Limerick focusses on addressing urban sustainability by decarbonising greenspaces and fostering biodiversity across a series of miniature orchards maintained by Limerick Civic Trust and adopted by local community groups and schools. Orchards can have great power in bringing a community together, supporting with mental and physical health and creating a sense of community ownership.

Platt Fields Market Garden, Manchester, England

Meanwhile Platt Fields Market Garden is a community market garden established on a disused bowling green within one of Manchester's public parks. It is part of the Community Supported Agriculture (CSA) network and managed by social enterprise MUD (Manchester Urban Diggers). As well as producing organic vegetables, it provides a space for a whole host of activities and events throughout the year.

Benefits

Draw recreational pressure, including local walking, away from more sensitive habitats along the Suir

Promote physical activity and health and wellbeing benefits for local communities, contributing to quality of life.

Encourage community food growing and social enterprise.

Create space for urban nature, including supporting pollinators

Opportunities to use additional habitat to hold water in the landscape and create stronger climate resilience

Links to the greenway network encourage active travel and reduce reliance on private car.

Strategic Project 6: St John's River to Kilbarry bog and Nature Park

Delivering improvements to St John's River and connectivity to Kilbarry Nature Park and Kilbarry Bog, creating improvements to the riverside walkways and strengthening links to help connect residents of Waterford to the waterway.

Justification

St John's River has been identified as a stretch of water with poor water quality and issues with invasive species - despite forming an important strategic ecological corridor in the metropolitan area. Fragments in this ecological corridor where highlighted in the analysis of Waterford MASP's network of BGI.

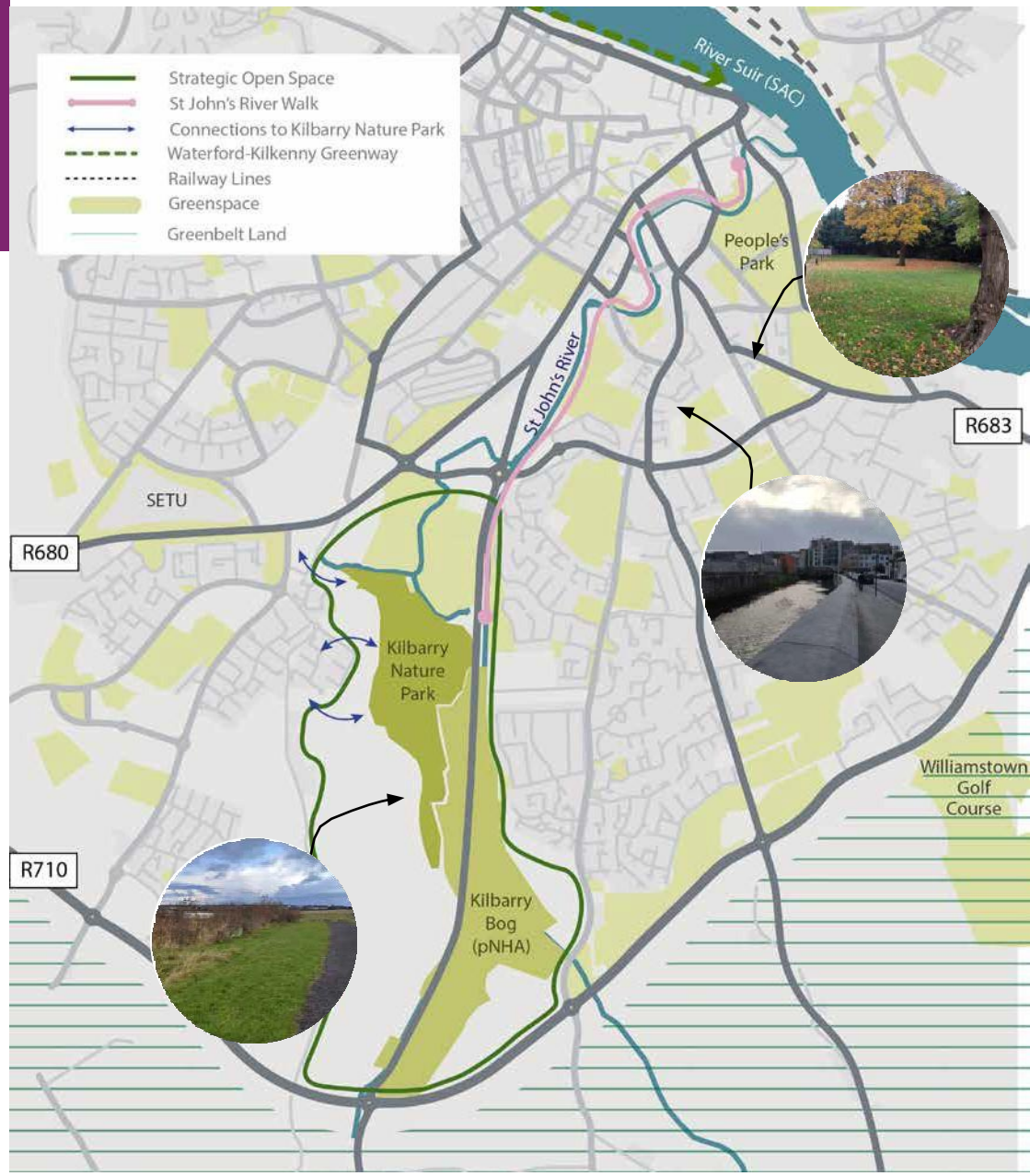
Access between St John's River and Kilbarry park, and to the park itself, is limited. This limits the potential educational, wellness and transport links to this greenspace, particularly given that it passes through pockets of relative socio-economic deprivation in the city.

There is the potential to enhance hydrological linkages between the Suir and Kilbarry bog, as well as recreational linkages between People's Park and Kilbarry Nature Park.

This project can also incorporate the potential extension to Kilbarry Nature Park as part of new residential development between the nature park from new housing between the park and the R710. This includes providing improved access to the nature park form new housing, Ballybeg neighbourhood and SETU.

NbS catalogue solutions to include

- River and stream renaturation
- Natural inland wetlands
- Bioretention areas.



Location of potential linkages between St John's River and Kilbarry Nature Park

Key Elements

- **Clean up of riverbed**: In collaboration with community groups, remove discarded objects and litter from the river to improve the riverbed integrity and discourage further dumping. St. John's River is a hydrological connection to the River Suir SAC and due to its urban location has become an area for illegal dumping. Previous clean ups removed tonnes of debris, an increase in frequency is needed.
- **Expansion of riparian zone:** Protect and restore habitats along the riparian zone. Pockets of habitat along the lower reaches of the river should be restored, vegetation enabled to establish and areas protected from excessive lighting due to the presence of light sensitive bats, birds and insects. Where appropriate, re-profiling of banks should enable transition habitats to act as floodplains.
- **Wetland restoration:** Kilbarry Bog pNHA is a protected habitat that requires management for Invasive Alien Species (IAS) eradication (Japanese knotweed, Himalayan balsam), rewetting of areas that are currently drained, regular species monitoring and reduction of pollution in St. John's River. Habitat restoration areas along the full length of the proposed connectivity network should be identified and protected.
- **Species specific measures:** Where habitat restoration is not possible, artificial sites for nesting birds, bats and mammals of the River should be incorporated or retrofit into existing infrastructure. Installation of artificial nest sites for species using the river e.g. holts for otter, Daubenton's bat roosts under bridges, Kingfisher nesting tubes, Grey Wagtail boxes.
- **Wildlife sensitive recreation:** Consideration of wildlife on all aspects of upgrading paths, lighting and amenities along this ecological corridor. Lighting should only be considered where it is needed and care taken to avoid encroachment on habitat or foraging areas of sensitive species. Interpretation can highlight the importance of the ecological corridor along with informing the public about species.
- **River restoration:** Long-term potential to look at restoration of flow dynamics within St. John's River.
- **Awareness and Monitoring:** Regular monitoring of species should take place (already happening in Kilbarry Bog pNHA due to EPA guidelines on landfill site) along the full length of the corridor. Citizen science initiatives can help to monitor presence of certain species and track changes over time.

Delivery Guidance

- Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas should be used as guidance as it seeks to guide developers on how to mimic the natural water cycle within an urban environment. NbS should be applied as close to the source as possible starting in the hard surfaced areas with runoff towards St. John's River. De-paving may be an option to buffer car parks.
- Consideration of spatial connections to Kilbarry Nature Bog and Kilbarry bog pNHA should be explored establishing wildlife movement corridors in line with Irish Wildlife Manuals on the potential role of ecological corridors for habitat conservation in Ireland.
- Treatment and removal of IAS in line with legislation will reduce further spread/establishment of IAS including Japanese knotweed along the river. Treatment of IAS along the river corridor, Kilbarry bog pNHA and Kilbarry Nature Park should follow the guidance provided in Appendix C, as well as best practice outlined on Ireland's Invasive Species website.
- Inland Fisheries Ireland provide guidance on planning for watercourses in the urban environment, which includes guidance on instream rehabilitation and outlines key considerations to protect watercourses from further development.

Kilbarry bog pNHA

Inspiration from elsewhere: Braid Burn, Edinburgh, UK

Braid Burn is a small watercourse in the south of Edinburgh, which runs through Inch Park in a straightened brick channel. As part of a wider flood alleviation project, a new naturalised river corridor with meanders was created through Inch Park was created. The aim was to restore ecological and hydrological functioning of the watercourse.

The brick and concrete channels were infilled and replaced with a new meandering corridor with runs, riffles, shoals and gently sloping banks, within a wider wetland area. During restoration, coir matting was used to protect clay and soil parks whilst vegetation was established. Meanders were created and then connected to the watercourse. Initially overpumping of the watercourse helped maintain water flow whilst works were being carried out, allowing sediment to settle within meanders.

The meanders have created more variability in width and depth of the river corridor which creates flow diversity. The new mosaic of habitats supports greater biodiversity, including birds, mammals and invertebrates. Otter are now present in the watercourse and Braid Burn forms an important part of the park.

Find out more here.

Delivery Partners

- Waterford Council
- Uisce Éireann
- Friends of St John's River
- Tidy Towns
- Environmental Protectation Agency (EPA)
- Local Authority Waters Programme
- Inland Fisheries Ireland
- National Parks and Wildlife Service (NPWS).

Next steps

- Undertake baseline assessments to understand the existing hydrology, geology and geomorphology of Kilbarry bog and St John's river to understand water quality and drainage patterns and identify opportunities for restoration.
- Engage with local communities and conduct an ecological survey to inform appropriate location and typology of new access nodes to Kilbarry park, a Natural Heritage Area which is currently inaccessible from Kilbarry itself.
- These initial steps should inform a masterplan identifying areas where there can be some recreational access and infrastructure, and areas which should be safeguarded for wetland restoration.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to support healthy ecosystem functioning and provide appropriate access for visitors.

Benefits

Improve water quality and create healthy wetlands habitats to support biodiversity, including for kingfisher and other aquatic species.

Improve functionality of wetland and filter water, improving water quality

Create healthy wetland habitats which sequesters carbon, mitigating climate change

Reduce surface water run-off into St John's river, protecting from flooding.

Increase connectivity to the water environment improving a sense of place for local communities.

Boost eco-tourism and education opportunities within Kilbarry Nature Park.

Strategic Project 7: King's Channel wetland

Partnership project to restore the floodplain and saltmarsh, incorporating scrapes and wet grassland for wildlife with construction of screened boardwalks and a hide.

River across River Suir from King's Channel

Justification

Part 1 of this Strategy highlighted the fragmentation and degradation of habitats along the banks of the Lower River Suir SAC. There has been historic loss of riparian bankside and saltmarsh habitats along rivers, including through the introduction of greenways. Several agricultural fields in the Kings Channel area have been identified as a potential area for creating nature-rich greenspace. The gradual loss of habitat has been further compounded by recreational access both formal and informal, particularly along the bankside floodplain of Ballinakill and Kings Channel area due to the close proximity of residential development to the Suir.

A paved riverside walkway exists along May Park Trail and there are several desire lines across the floodplain and along Maypark and the Ballinakill Riverside Walk. There is a need to delineate access routes to prevent potential negative impacts to the Lower River Suir SAC as a result of over-trampling.

Benefits

Expanded riparian habitats boost ecological diversity and walkways help to connect community with nature.

Provide wetland as a nature-based barrier to flooding, protecting local properties

Increase carbon sequestration through wetland habitats which act as carbon sinks, helping create a more climate resilient environment.

Provide opportunities for nature enthusiasts and birdwatchers to engage with nature and support wellbeing.

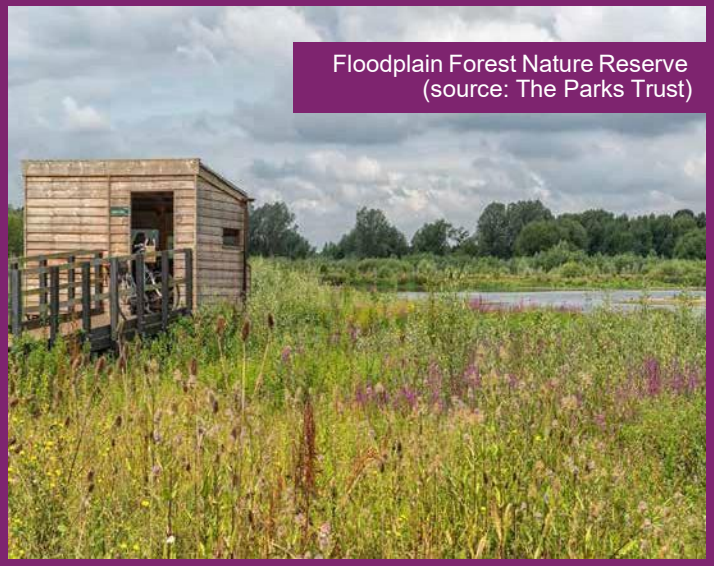
Inspiration from elsewhere:Turvey Nature Reserve, Fingal

Turvey Nature Reserve, along the Rogerstown Estuary to the north of Dublin is a large area of former grazing marsh, which was transformed from grazing pasture to a diverse wetland attracting wildlife and visitors.

Retained habitats include allotments, hedgerows, hay meadows and Fingal Forest. Restored habitats include brackish grasslands and inter-tidal creeks which offer important habitats for birds, providing safe roosting sites for thousands of wintering wildfowl and waders. The mudflats, exposed at low tide also offer foraging habitat.

The addition of bird hides, wader scrapes, freshwater ponds, hardwood forestry, new farming practices, planting of winter seed crops for birds and construction of new public pathways allows visitors a more diverse birdwatching experience year round.

The Nature Reserve is owned by Fingal County Council and forms part of the Council's Green Infrastructure.



Floodplain Forest Nature Reserve (source: The Parks Trust)

Key Elements

Functional floodplain: Removal of existing embankments, berms and levees to rewet adjacent agricultural land to create diverse habitats and restore wetland and saltmarsh habitats. These provide a buffer to reduce flooding on the adjacent properties and also increase carbon sequestration. Habitats should include scrapes, lagoons and wet grassland from reclaimed agricultural land. Fish and aquatic invertebrates supporting by these habitats support important foraging, breeding and roosting spaces for birds.

Visitor infrastructure: Away from the most sensitive ecological habitats, raised boardwalks through areas of wetland provide opportunities for people to engage with the important saltmarsh habitats, whilst keeping public access to a delineated route. Bird hides should be introduced, offering views across the wetlands to provide educational opportunities and increase public engagement. Siting of the boardwalk should avoid impact to qualifying features of SAC. Design of these features should incorporate sustainable materials and be integrated into the natural features of the site.

Sustainable access: A hierarchy of access to include 'active access' along existing paved routes, protecting ground flora and preventing species disturbance through less formal 'exploring nature' routes (along Ballinakill Woods and Riverside Walk) and maintaining 'undisturbed areas' within sensitive floodplain, river banks and saltmarsh habitats. Access types should be delineated to protect ecologically sensitive areas. Existing tarmacadam paths adjacent to the river should be redesigned with permeable paving or raised board walks to improve surface water flow. Restrict access to people on foot, prevent access for dog walking and consider seasonal access restrictions within focal areas.

NbS catalogue solutions to include

- River floodplains
- Saltmarshes.

Delivery Partners

- Waterford Council
- BirdWatch Ireland
- Irish Wildlife Trust
- Community Wetlands Forum support projects that rehabilitate local wetlands
- Environment Protection Agency
- Local Authorities Waters Programme
- Inland Fisheries Ireland
- The Living Bog project Ireland
- National Parks and Wildlife Service (NPWS).

Delivery Guidance

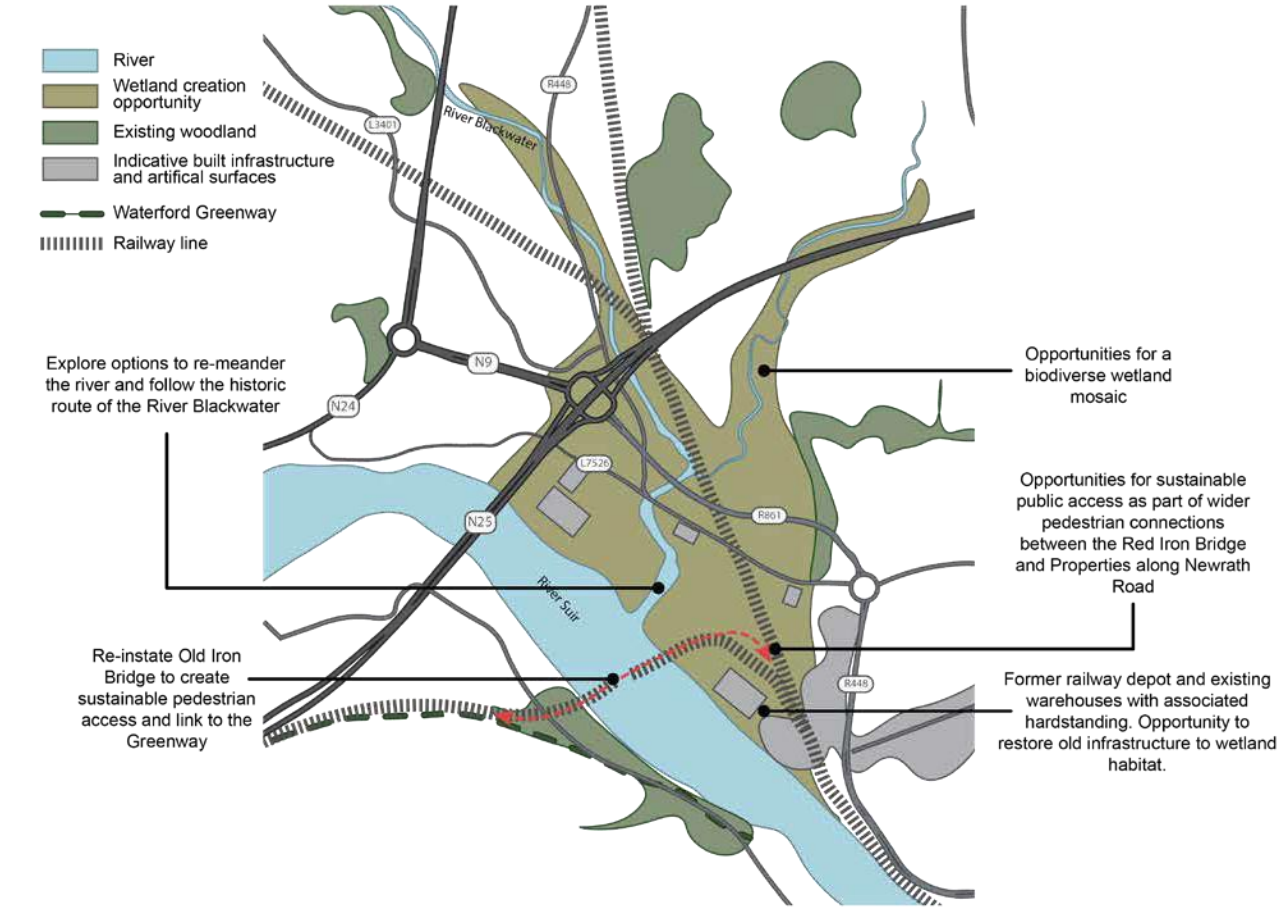
- Early engagement with the landowner and any potential delivery partners to inform feasibility and design. Early engagement with stakeholders including statutory consultation with NPWS with regards to the SAC with consideration for Appropriate Assessment requirements.
- Seek funding opportunities for riparian and floodplain habitat creation.
- Reference should be made to the Environment Agency (2023) Saltmarsh Restoration Handbook: UK & Ireland, which aims to support the feasibility of small to larger scale restoration projects. This makes recommendations in chapter 2 for the key stages involved, beginning with a feasibility study. Feasibility studies involve the consideration of potential impacts and design requirements through investigations such as the following:
    - Conduct ecological surveys along the south bank of the River Suir around King's Channel to understand the baseline habitat type and species present and inform any mitigation and design considerations.
    - Conduct hydrological investigations to inform the design of restored saltmarsh habitat on former embankment of grazed pasture.
    - Conduct historic environment investigations to inform any mitigation and design considerations in relation to heritage features.
- Following delivery and restoration of saltmarsh, ecological monitoring should be undertaken which could involve citizen science. Monitoring guidance is available from the Environment Agency (2023).
- Additional guidance can be sought from European Environment Agency (2020) guidance on Floodplains: a natural system to preserve and restore and RSPB & CIWEM (2005) Saltmarsh Creation Handbook: A Project Manager's Guide to the Creation of Saltmarsh and Intertidal Mudflat.

Next steps

- Liaise with landowners to explore opportunities for restoring wetland and riparian habitats at King's Channel and understand the impact on current land use including farming. There is a need to bring landowners on-board with the project and share the vision of the project.
- Work with local communities to educate them on how recreational use of the saltmarsh can damage the habitat and work with communities to create sustainable access options to the saltmarsh and the adjacent Ballinakill woods.
- Engage with NPWS, BirdWatch Ireland, Irish Wildlife Trust and National Biodiversity Data Centre to source ecological records and local knowledge to inform design.
- Engage with NPWS regarding in relation to works in the area and proximity to Lower Suir SAC. The strategic project should benefit the Suir SAC through restoring lost and degraded habitats, but there may be a requirement for undertake Appropriate Assessment for the construction and operation phases.
- Undertake appropriate feasibility studies to understand the existing landscape, ecology, hydrology and geomorphological, and how this would impact opportunities to rewet the area.
- Informed by initial assessments, undertake removal of embankments to create a more functional floodplain.
- Work with landscape architects and other associated professionals, as well as local communities, to design suitable access infrastructure, including boardwalks and bird hides and interpretation boards to support sustainable access and recreation.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to support healthy ecosystem functioning and provide safe and enjoyable access for visitors.

Strategic Project 8: Grannyferry wetland and bogs

Creating a biodiverse wetland mosaic, expanding and restoring the area of bog habitat of Grannyferry pNHA.



Multi-functional BGI opportunities for the Grannyferry wetlands

Justification

The Grannyferry pNHA and the surrounding floodplain of the Blackwater River has faced significant habitat fragmentation as a result of land reclamation, infilling, infrastructure and industrial development. This has reduced the extent of reed swamp, wet grassland and oak, ash and hazel woodland habitats in particular. This opportunity would protect and expand what remains of the floodplain, restore the original route of the Blackwater River, which currently runs to the north-east of the disused Old Red Iron Bridge, despite its historic alignment to the south-east of the bridge. This would ensure the future ecological resilience of Grannyferry pNHA and the surrounding habitats, as an important natural asset within the BGI network.

There is combined opportunity to reinstate the abandoned Old Red Iron Railway Bridge, which crosses the River Suir. The bridge was built in 1906 as part of the route which linked Cork and Kerry to the Port of Rosslare via Waterford. The Old Red Iron Bridge originally had nine spans, with the centre span later removed in 2003 to allow boats further up the river. Reinstating this bridge would restore a feature of historic interest, reconnecting with the industrial past and reduce severance across the River Suir.

This project has the potential to be part of a linear park along the River Suir, straddling north and south of the river and linking to Strategic Project 9.

Key Elements

Re-meandering: Explore opportunities for re-meandering the river utilising the historic route of the Blackwater River. Restoration and re-meandering has been found to result in substantial benefits through improvements in hydrological connectivity.

Functional floodplain: Create new drainage channels within in-filled land between the narrow creek of the historic channel of the Blackwater River and the River Suir, to reconnect the floodplain and reduce upstream flood risk. Incorporate scrapes and flood water attenuation ponds to increase flood water storage capacity within the floodplain and reduce upstream flooding of the Newrath Link Road.

Biodiverse wetland mosaic: Restore habitats, including wetland, saltmarsh and terrestrial habitat mosaics where land has previously been reclaimed and in-filled to create a “sanctuary area” for wildlife with benefits for local priority species such as otter, fish, birds, amphibians, rare plants and invertebrates. Disused areas of hard standing should be removed to restore the natural floodplain. Saltmarsh and wetland habitats can also help sequester carbon.

Nature connection: Provide public access within the least sensitive areas with delineated access and bird hides to encourage interaction with nature. Interpretation signage should be incorporated to educate visitors on local wildlife species and the wider benefits provided by the saltmarsh and wetland.

Red Iron Bridge: Reinstate the historic red iron bridge to provide a pedestrian link across the River Suir and promote connectivity between Gracedieu Nature Space. Interpretation can be introduced to highlight the history of the bridge, and educate visitors on the industrial heritage and impact this had on the saltmarsh and wetland habitats.

NbS catalogue solutions to include

- Natural inland wetlands
- Salt marshes
- River floodplains.

Benefits

Brings a large area of semi-natural and brownfield land into beneficial management for biodiversity.

Functional floodplain, including through re-meandering reducing local flood risk to nearby properties.

Increase carbon sequestration associated with healthy wetland and saltmarsh habitats, helping create a more climate resilient environment.

Provide opportunities for nature enthusiasts and birdwatchers to engage with nature and support wellbeing.

Wetland vegetation helping to filter surface water run-off leading to improvements in water quality.

Delivery Guidance

- The design of restored wetlands should consider climate change resilience and the future likelihood of increased sea levels. The Ramsar Convention on Wetlands includes briefing notes, principles and guidance such as Wetland Restoration for Climate Change Resilience (2018) and Principles and guidelines for wetland restoration (2002). There is also guidance available from the European Environment Agency (2020) on Floodplains, which aims to encourage coherence of national and local policies and collaboration in river basin and flood risk management.
- Financially, it would require large scale funding external from Kilkenny County Council to fund this project. Various national grant schemes are available for wetland restoration. These are generally operated by the National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage.

Delivery Partners

- National Parks and Wildlife Service
- Irish Wildlife Trust
- Community Wetlands Forum support projects that rehabilitate local wetlands
- Environment Protection Agency
- Local Authorities Waters Programme
- Local businesses.

Next steps

- Liaise with landowners to explore opportunities for restoration of the wetland, and impact on any existing land uses.
- Carry out a feasibility study to better understand the existing landscape and opportunities for wetland restoration. Feasibility studies involve the consideration of potential impacts and design requirements through investigations such as ecological, hydrological, geomorphological, historic environment and soils surveys to understand existing baseline, with consideration of the potential for peat deposits in the wetland area and for contaminated reclaimed land.
- Seek out historic mapping and survey data to provide context to the site's development over time to the present day in order to inform restoration potential.
- Ensure there is a robust Management Plan to ensure beneficial habitat management of Grannyferry pNHA and the area of brownfield land which connects it with the River Suir, as well as to provide safe and enjoyable access for visitors.

Inspiration from elsewhere:

Eddleston Water Project, River Eddleston (Eddleston and Peebles, Scotland)

The catchment scale restoration of the Eddleston River, a tributary of the River Tweed, provided natural flood protection for communities in Eddleston and Peebles and supported the restoration of biodiversity in and around the 69km2 river catchment. This was achieved by taking an integrated approach to flood risk and habitat improvement, restoring the natural features of the Eddleston catchment, including the re-meandering of sections, removal of flood embankments, creation of flood water storage ponds and tree planting, which improved habitats for wildlife and fisheries . In 2023, the project was chosen as a UNESCO Ecohydrology Demonstration Site, which is the only one of its kind in the UK.

Hamiltonhill Claypits (Glasgow, Scotland)

Hamiltonhill Claypits demonstrates how the restoration of wetlands within a former industrial area can be delivered with consideration for existing ecology and local community needs. The project protects and enhances this Local Nature Reserve, and achieved benefits for biodiversity whilst creating a nature-rich greenspace for the local community.

The site offers access routes for running, wheeling, cycling and fishing and improves social cohesion between neighbouring communities through the provision of raised boardwalks and a new bridge across the Forth and Clyde Canal.

Wetland with raised boardwalks at Hamiltonhill Claypits

Strategic Project 9: Gracedieu Nature Park

A partnership project to celebrate natural and semi-natural habitats through habitat restoration, extension of riparian ecological corridors and an opportunity for communities to connect with wildlife.

Benefits

- Improve carbon sequestration through restored wetland and riparian habitats.
- Promote collaboration with local community groups to engage in wildlife monitoring.
- Improve habitat availability for a range of species.
- Extend riparian and marsh habitats along the river to reduce effects of runoff on water quality.
- Improve connectivity of woodland and diverse grassland habitats alongside the River Suir.
- Offer attractive, natural habitats alongside the greenway to promote active use of this route.
- Offer a habitat restoration site along the Greenway that promotes responsible ecotourism.

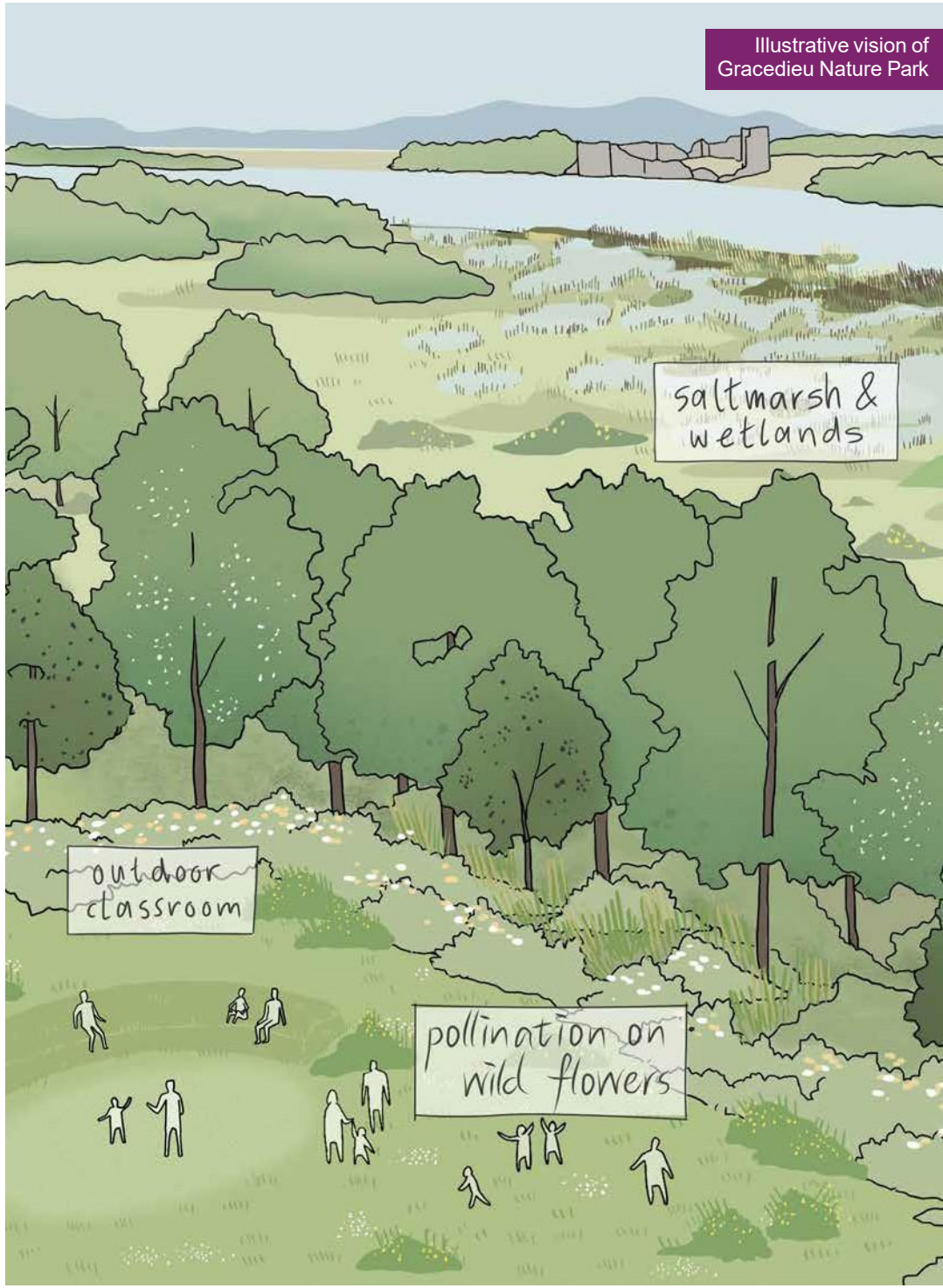
Justification

In collaboration with SETU, Mount Congreve, the Irish Native Woodland Trust, wildlife organisations, communities and landowners, this area has the potential to showcase how habitats can help urban areas reach climate, biodiversity and BNG targets.

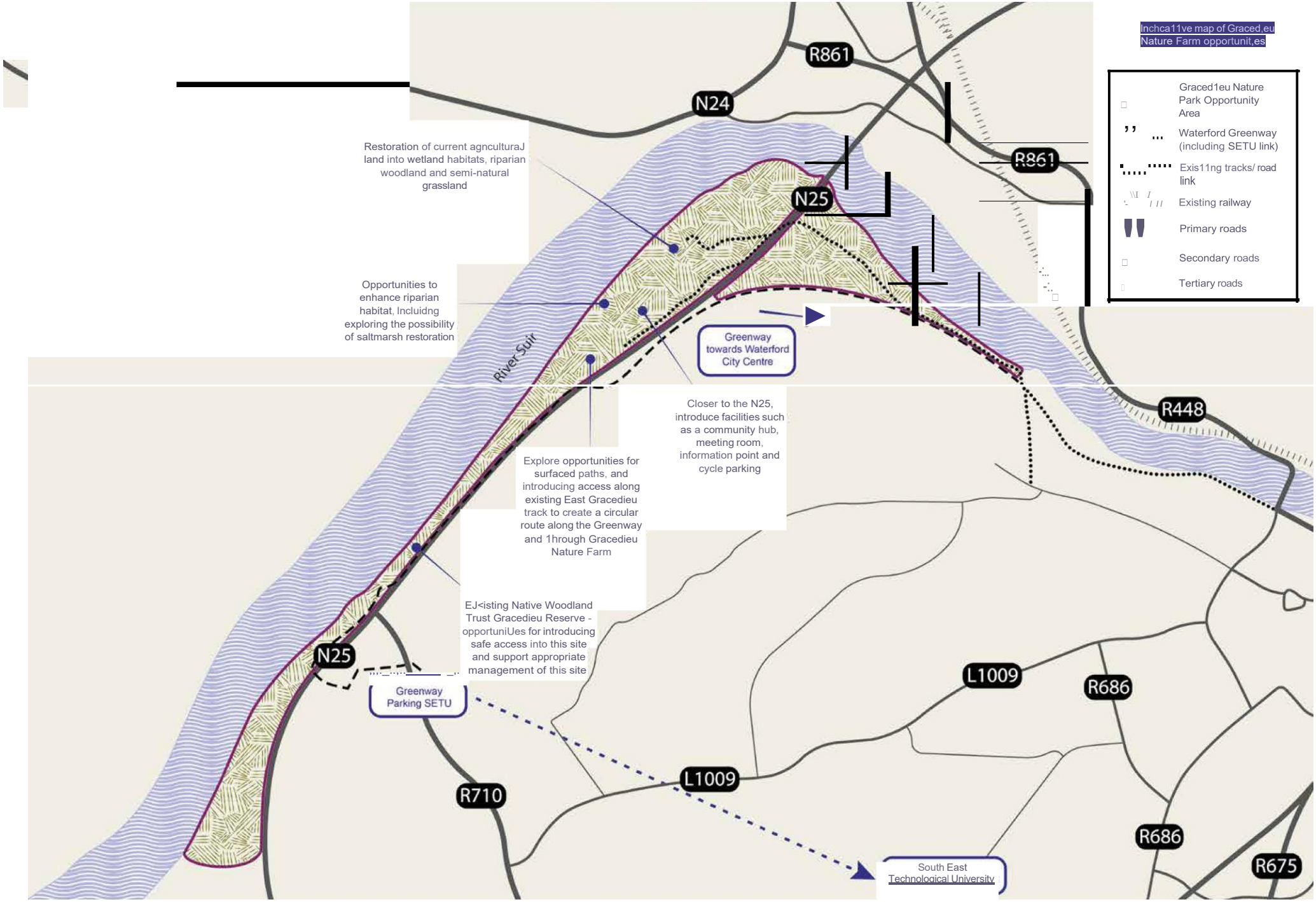
By extending the area available for native habitats, the goals of increased carbon sequestration, protection of the SAC conservation objectives and reversing biodiversity loss can be addressed.

NbS catalogue solutions to include

- River floodplains
- Salt marshes
- Urban forest.



Illustrative vision of Gracedieu Nature Park


Inchca11ve map of Graced.eu Nature Farm opportunit,es
Graced1eu Nature Park Opportunity Area
Waterford Greenway (including SETU link)
Exis11ng tracks/ road link
Existing railway
Primary roads
Secondary roads
Tertiary roads
R861
N24
R861
N25
Restoration of current agnculturaJ land into wetland habitats, riparian woodland and semi-natural grassland
Opportunities to enhance riparian habitat, Incluidng exploring the possibility of saltmarsh restoration
River Suir
Greenway towards Waterford City Centre
Closer to the N25, introduce facilities such as a community hub, meeting room, information point and cycle parking
R448
Explore opportunities for surfaced paths, and introducing access along existing East Gracedieu track to create a circular route along the Greenway and 1hrough Gracedieu Nature Farm
EJ<isting Native Woodland Trust Gracedieu Reserve - opportuniUes for introducing safe access into this site and support appropriate management of this site
N25
Greenway Parking SETU
L1009
R686
L1009
R710
R686
R675
South East Technological University

Key elements

Riparian habitats: Restoration of saltmarsh, transitional wetland habitats and alluvial forest should be explored, offering opportunities to add ecological habitat, as well as provide a buffer from flooding. Rewet drained farmland to improve quality of water runoff.

Invasive Alien Species (IAS): Removal of IAS including Japanese Knotweed to help stabilise river banks and allow native vegetation to establish.

Hedgerow and woodlands: Extend native woodland from the Native Woodland Trust to the south to improve connectivity of woodland. Promote natural regeneration to buffer native woodland blocks in the south-west and provide connectivity through hedgerows and tree belts. Species should include a range of species with different blossoming periods to support invertebrates.

Sustainable access: In less sensitive areas, provide sustainable access to visitors including through walking routes, wildlife watching shelters and areas of seating for quiet contemplation. These areas should be linked to the adjoining greenway to encourage active travel to the site. Cycle parking should be included and no cycling within the nature park.

Education: Interpretation boards and educational signage within areas of access can help engage visitors with their local environment and reconnect people to the River. In the longer term, the project could explore opportunities for a small education “hub” on stilts, to limit impact on the site.

Community ownership: Explore opportunities for a novel approach were communities are offered the chance to ‘adopt’ an area for restoration and explore voluntary opportunities to be involved in invasive species removal, restoration and monitoring alongside ecologists and expert land managers.

Enterprise and sustainability: In the long-term, explore opportunities for ecotourism guided by local wildlife experts.

Delivery Guidance

- Restoration of natural habitats should follow best practice guidance. The includes CaBA’s Saltmarsh Restoration Handbook and Woodlands of Ireland’s A Guide to Identification, Design, Establishment and Management
- Monitoring of restoration should follow best practice guidelines and be undertaken by ecologists. Technical guidance for monitoring saltmarsh restoration is available, as well as a monitoring framework and manual for wetlands. In addition, the site should be surveyed for species under the Flora Protection Order, where these are present along the banks of the Suir.
- The Guidelines for Communities Managing Local Wetlands and Peatlands produced by the Community Wetlands Forum provides a useful start for involving local communities in this project, as well as selling the benefits of restoration to land owners.
- Guidance on removal of IAS is found in Appendix C, as well as best practice within the resources section of Ireland’s Invasive Species website. All IAS treatment and removal should be carried out by specialists as with appropriate licenses for undertaking this work within an SAC and along a river.
- Guidance for access to nature within this strategy should be referred to for providing recreational infrastructure (see **Strategic Priority 1**), as well as specific guidance from the Community Wetlands Forum on education and signage and recreation and trails, and particularly guidance for how to manage this in protected areas.

Delivery Partners

- Waterford City and County Council
- Native Woodland Trust
- South East Technological University (SETU)
- National Parks and Wildlife Service (NPWS)
- Local Authority Waters Programme
- Tidy Towns teams
- Healthy Waterford
- Social enterprises involved in food growing and wellbeing programs
- Local businesses and communities.

Next steps

- Liaise with landowners to explore opportunities for a change in land management and access restrictions within the land between the N25 and the River Suir.
- Undertake baseline surveys to inform a masterplan identifying areas where there can be some recreational access and infrastructure, and areas which should be safeguarded for nature restoration. Wider, surfaced footpaths should link recreational areas to the Greenway.
- Engage with NPWS on the potential for Conservation Measures funding for restoration of habitats and alignment with the Conservation Objectives of the Lower River Suir SAC.
- A full ecological assessment of the River Suir and its banks should be completed to understand the impact of any changes on the Lower River Suir SAC.
- Explore opportunities for funding, including associated with the national Nature Restoration Plan and Conservation Measures funding.
- Ensure there is a robust Management Plan for the site, detailing the management and maintenance required to support healthy ecosystem functioning and provide safe and enjoyable access for visitors.

Inspiration from elsewhere: Wilder Wetter Caerlaverock, Dumfries, Scotland

Funded by the Scottish Government's Nature Restoration Fund and led by the Wildfowl and Wetlands Trust, this project which aimed to re-nature an area of drained farmland. This would create important transitional habitat between mudflats, and saltmarsh and the terrestrial landscape.

Field drains were blocked allowing the water table to rise and slow the flow of water. Scrapes and channels were created within the wet grassland to hold additional water and provide habitat for wading birds including woodcock and snipe, and invertebrates including dragonflies. The increase in invertebrates also acts as a food source for other species, further improving biodiversity of the site. Pools for natterjack toads, a rare species in Scotland have also been created.

Find out more here.

Inspiration from elsewhere: Green Shores, St Andrews, Scotland

The Green Shores initiative is led by the University of St Andrews to combat saltmarsh habitat loss. Based on 25 years experience of saltmarsh restoration and research, work has included increasing the resilience of saltmarsh in the Tay Estuary and Eden Estuary. Work has trialled growing and transplanting vegetation to re-establish saltmarsh and installing storm fences to protect newly established marshes. They have worked with volunteers to help restore and monitor saltmarsh. This has helped educate communities and spread awareness about the importance of saltmarsh.

Find out more here.

Strategic Project 10: Ard Rí Park

In association with redevelopment of this city landmark, to secure a maturing city centre habitat for biodiversity, delivery of community and amenity space and with potential for delivery of a regional park of scale.

Justification

Over the past two decades Waterford has created a high-quality compact city centre. With the development of the North Quays site, the city is now reorientating the city centre on the river to create a compact sustainable concentric city. This reimagining of the city centre creates an opportunity to develop the former Ard Rí lands (c.10ha) immediately north of the river and undeveloped for two decades as a direct and natural counterbalance to the historic city core south of the river.

The site of the former Ard Rí hotel, along with the adjoining lands, form an important and defining element in the urban form of Waterford city centre. Its dominant and elevated location and its south facing steeply sloping topography, define the backdrop to the Suir River from the city centre. The site provides space for potential strategic linkages form the city centre to its agricultural hinterland and is recognised as such in Chapter 3 of the Waterford City & County Development Plan 2022 - 2028.

The site is home to a variety of habitat types and given its historic semi-formal context and recent period of under-use, it provides a diverse and maturing ecological tapestry which visually dominates the city centre. The site is located at the heart of the Ferrybank neighbourhood and within a short walk of the city centre and therefore presents a unique opportunity to develop concepts and plans around open space, amenity and blue green infrastructure and the potential for a park of scale to serve the regional city and broader communities.

Current Ard Rí site forming prominent sloping backdrop overlooking the River Suir

Benefits

- Create an attractive wooded landscape to form a prominent backdrop in views form Waterford and provide a sense of place.
- Create a biodiverse nature corridor through the north of the city, promoting natural regeneration of native woodlands.
- Create a shaded outdoor open space, offering a resilient space for a warming climate.
- Offer open space with walking trails and recreational infrastructure to promote outdoor physical activity.
- Create a destination space with links to adjoining neighbourhoods creating a social space.
- Enhance carbon sequestration associated with woodland restoration.

Key Elements

Scrub and woodland: Rewilding of emerging scrub and woodland habitats to create a mosaic of native woodland habitat, with diverse species age and structure. Allow natural regeneration of the existing ecological habitats.

Destination space: Encourage use of the space through a network of trails and footpaths through the woodland. Regular benches to provide rest stops should be incorporated. On flatter areas, additional recreational facilities could be incorporated including picnic areas, timber trim trails or natural play opportunities. Welcoming signage should be incorporated to encourage visitors to the park.

Viewpoints: Create a destination viewpoint from the elevated landform where there is a gap in taller woodland vegetation. Local artwork to help interpret the view over the city and River Suir could be incorporated to help connect visitors and residents with the local landscape.

Local heritage: Enhance and promote local heritage including Popes Tower located at the north of the site. Artwork could also be incorporated to reflect the historic use of the site as a hotel, and subsequent prominent street art piece which provided an important landmark from the city.

Access and connectivity: Include important links to adjoining neighbourhoods to encourage use of the site. Wayfinding should be included to promote connectivity between this site and the Kilkenny and Waterford Greenways.

Biodiversity corridors: Manage habitats within the park to create a biodiversity corridor to link urban and rural ecology. Habitats should join up with those within the strategic projects at the Quays and along the Greenways.

NbS catalogue solutions to include

- Open Green Spaces
- Urban Forests

Delivery Guidance

- The Management Guidelines for Ireland's Native Woodlands includes guidance on natural regeneration and creating diverse woodland structures.
- The Forest Service provide guidance on forest recreation in Ireland, providing guidance for promoting sustainable recreation alongside woodland.
- Additional guidance on creating welcoming, destination spaces is including within **Strategic Project 4: Williamstown Park.**

Delivery Partners

- Kilkenny Council
- Waterford City and County Council
- Fáilte Ireland
- Private landowners / Waterford Golf Club
- Local community and school groups.

Next steps

- Carry out a feasibility study to better understand the existing landscape and opportunities for woodland creation.
- Remove existing infrastructure (e.g. built infrastructure associated with the old hotel) to restore natural habitats, or integrate restoration of these features within the new design.
- Work with engineers, landscape architects and other appropriate professionals to design and create appropriate access trails and other visitor infrastructure.
- Ongoing monitoring of woodland regeneration and species supported by the project.

Inspiration from elsewhere: Water Haigh Woodland Park, Leeds, England

Restoration of a former spoil heap near Leeds has been transformed into a country park, comprising a mosaic of woodland, meadow, grassland and wetland. The plantation woodlands include a diverse age and species structure, such as oak, beech, ash and sycamore and support bird species such as Long-tailed, Great and Blue tits. Other species including buzzards, red kits, cormorants, grey herons, roe deer and harvest mice provide make this an important site for nature enthusiasts.

The woodland park adjoins the canal and provides connectivity to the canal walk and long-distance Trans-pennine trail. The park is owned and managed by Yorkshire Wildlife Trust and Leeds City Council.

Inspiration from elsewhere: Park am Gleisdreick, Berlin, Germany

In the centre of the built footprint of Berlin, an area of inaccessible wasteland has been transformed into an urban open space which supports a variety of uses. Central lawns and meadows are lined by ruderal, woodland-like areas. These “wilderness” areas have been left to naturally re-colonise as examples of novel ‘fourth nature’. The heritage as a previous industrial site has also been incorporated into the design, with remains of old railway tracks, signalling systems and buffer stops present within the park.

Recreational facilities include sports areas, natural play facilities and commercial food and drink outlets, whilst interactive signage with QR codes educated visitors on the history and nature of the site.

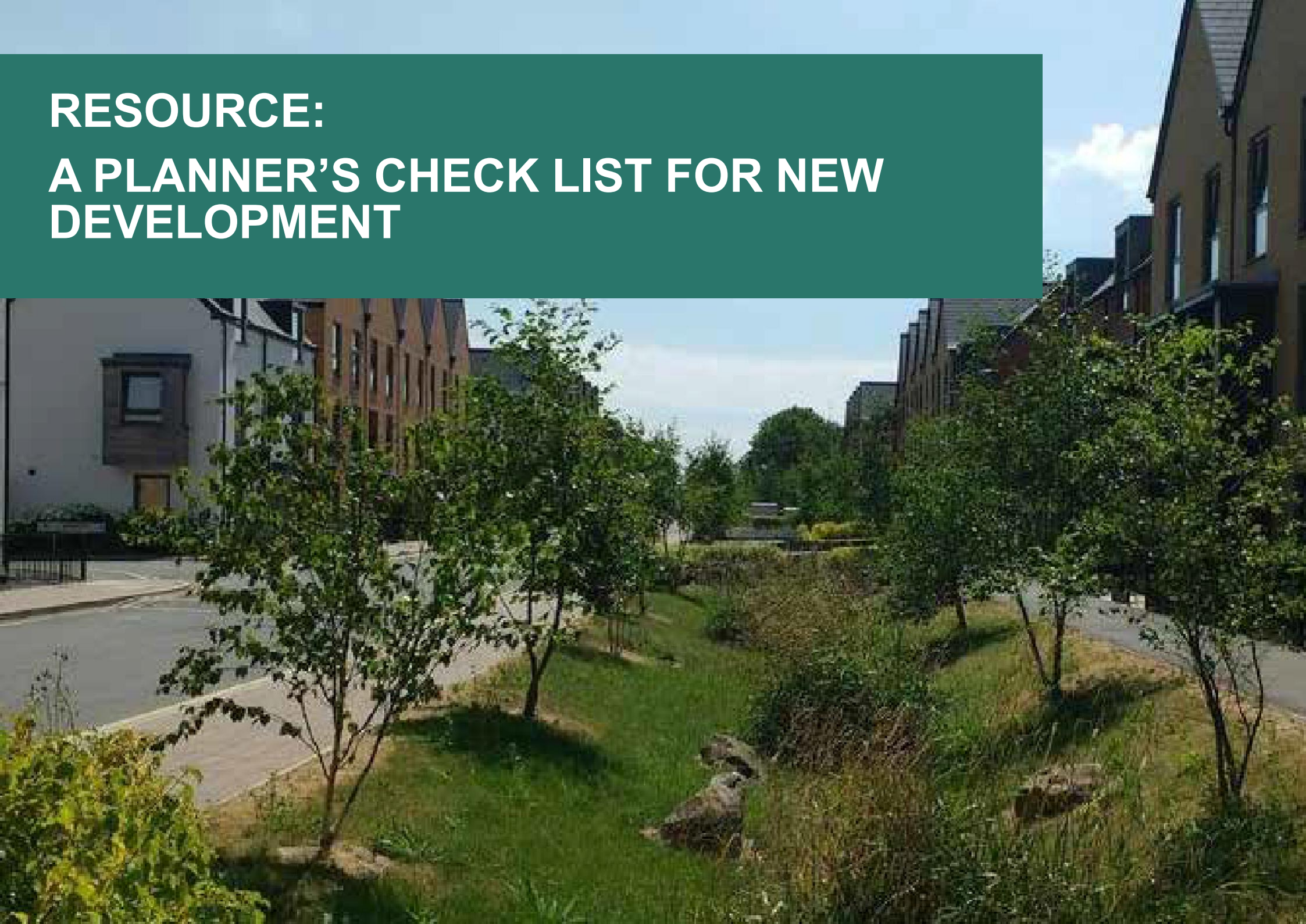
Remains of railway tracks through woodland areas

QR codes within signage to promote education

Previously industrial areas left to naturally recolonise

RESOURCE:

A PLANNER'S CHECK LIST FOR NEW DEVELOPMENT



The following process sets out the key steps to ensure integration of BGI in the design of developments.

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Principle 1: Starting with the landscape		
Does the design of the scheme connect effectively beyond the 'red line boundary' of the site and maximise benefits for its wider environment?		
Has the design team identified existing landscape and ecological features relevant to the site? E.g. hedgerows, woodland, marsh.		
Have these features been incorporated positively and reflected in a dedicated blue and green infrastructure strategy for the scheme?		
Does the scheme have a relationship to any of the Strategic Projects listed in Chapter 5 of this Strategy?		
If so, have opportunities been taken to support of link to these projects?		
Principle 2: Compact settlements to create space for BGI		
Have compact forms of building been used whenever possible (with terraced housing and apartments preferred over lower density typologies) in order to free up land for the incorporation of multiple BGI functions?		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Has parking provision been minimised as far as practical in order to free up land for the incorporation of BGI function?		
Principle 3: 'Garden streets' or living streets		
Does the masterplan reassert the place of streets at the heart of the community and urban BGI network?		
Do streetscapes within the development provide the stage for movement and daily life, and meaningfully provide spaces where community members of all ages can safely and enjoyably spend time and interact with each other?		
Have BGI functions (such as flood resilience, biodiversity, play, recreation and nature connection) been incorporated into these streetscapes?		
Principle 4: Designing for nature recovery		
Does the site safeguard any important nearby parts of the biodiversity network in the metropolitan area – as highlighted in Part 1 of this Strategy?		
Does the BGI framework for the development take into account any of the ecological networks highlighted in Figure 3.3 of this Strategy?		
Does the site layout and design boost the biodiversity value of the wider zone around these sites and networks, through accessible		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
nature green space, natural flood management, new woodland or other appropriate habitats?		
Have small-scale features been incorporated into the design of units (e.g. bat boxes, swift bricks, “hedgehog highways”?)		
Principle 5: Tree planting		
Does the design seek to retain, protect and incorporate any existing trees and hedges of suitable quality and condition as part of the development layout?		
Is tree planting integral to the public realm design of the scheme?		
Does the proposed tree scheme deliver tree planting as part of a quality landscape design which provides effective benefits for people, nature and place?		
Does tree selection take into account factors such as mature crown spread, highway visibility sight lines and the position of underground services?		
Does tree selection take into account climate change adaptation?		
Are tree pits well designed, to industry standards, ensuring sufficient root space, tree soil, drainage and irrigation during drought periods?		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Where tree-lined streets or avenues are planned, has careful consideration been given to species, species mix and space for growth?		
Principle 6: Walking and cycling		
Does the development start from a presumption that walking and cycling will be the primary mode of travel for short journeys?		
Does the scheme connect effectively into wider walking/cycling networks, including the Waterford-Kilkenny Greenway, so that people of all ages and abilities can access important destinations without a private car?		
Do linear walking and cycling routes integrate GBI components?		
Are green routes through the site direct, overlooked and offer access for all?		
Principle 7: Community food growing		
Does the scheme provide designated spaces for community growing, with appropriate environmental conditions such as aspect, shelter, drainage, irrigation and soil quality?		
Does the scheme consider start-up funding and advertising, and support which new residents can access these to support a community growing group?		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Principle 8: Pollinator planting		
Are areas of wildflower and ‘wilder’ areas of grassland incorporated into greenspace, in places closely mown grassed areas?		
What is the percentage of native species within the proposed planting mix?		
Principle 9: Play		
Do the proposals address any shortfall of play facilities in the area, either by improving the quantity and or quality?		
Is the play area set within an attractive environment with a distinctive sense of place?		
Are play areas multifunctional and nature-based?		
Have incidental ‘playable’ spaces been incorporated into the scheme, including along walking and cycling routes?		
Are play spaces provided inclusive, where children of all abilities can play amid a rich range of physical, sensory and social experiences?		
Can play spaces by more closely integrated into the wider public realm, rather than behind railings?		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Principle 10: Relationships with blue corridors and water quality		
Area rivers and waterways (where relevant) considered as the centrepiece of the development proposal?		
Does the proposed scheme take every opportunity to be orientated to encourage sensitive access to, and enjoyment of, the water environment?		
Have the Water Framework Directive (WFD) status and objective for each relevant watercourse been identified?		
Do the proposed measures provide an important contribution to meeting these objectives?		
Principle 11: SuDS and natural flood management		
Does the proposed scheme “make space for water” through the delivery of new BGI to sustainably manage flood risk for the duration of the anticipated lifespan of the development?		
If so, has allowance been made for climate change within these plans?		
Have the best SuDS techniques been selected for the available site characteristics – including topography, ground conditions, the surface water run-off destination and character of the setting?		

Step	Yes / No / Not Applicable	Justification (please provide justification for your comments)
Does the proposal maintain at least an 8-metre easement between any built development and the top of the bank of a watercourse and/or the toe of a flood defence? (this is to allow for maintenance and inspection requirements)		
Are SuDS linked to water efficiency measures where possible, including rainwater harvesting?		
Do proposed SuDS features provide multifunctional benefits beyond flood risk alleviation (including biodiversity, nature connection and carbon storage)?		
Principle 12: Long term maintenance		
Has long-term stewardship of the BGI assets been discussed at an early stage of design?		
Have delivery partners been clearly identified?		
Have alternative models for maintenance been explored, including partnership with non-profit organisations, community land trusts (CLTs) or community-led initiatives?		

Appendix A:

Summary of Stakeholder Engagement

Image from stakeholder workshop 1 (held in November 2023)

While this BGI Strategy draws on existing policy documents, mapped analysis and site visits, engaging key stakeholders with a stake in the BGI network was an important part of the development of the Strategy. This allowed the team to gather diverse insights into both challenges and opportunities faced by the MASP area, and to identify potential delivery partners for building the future of the network.

In-person stakeholder workshop (November 2023)

In November 2023, two representatives from the LUC team and one from Yellow Sub facilitated an in-person workshop in Waterford with key stakeholders from within and outside Waterford and Kilkenny Councils.

The objectives of this workshop were to:

- 'Sense check' our baseline (summary SWOT) analysis of how Waterford's BGI network is currently performing (a document was distributed prior to the workshop for stakeholders to review).
- To present mapped data collected so far and identify data deficits.

Key points discussed during the stakeholder session included:

- Waterford's potential to offer a high quality of life due to its natural environment, coupled with the need for increased investment and enhanced connectivity, especially along the river corridor, notably at South Quays.
- The city centre's deficiency in green spaces necessitates urban greening for future development, compounded by challenges in accessing the countryside due to the lack of public rights of way.
- The significance of community engagement and education emerged as critical drivers for change, particularly in adopting a more character-oriented approach to active travel.
- The economic advantages of BGI, underscoring its importance beyond mere residual space post-planning ("space left over after planning").
- Limitations in public resources and fragmented land ownership, which present hurdles. However there are planning policy "levers" to pull on to deliver BGI.
- The challenge of coordinating between various partners and funding sources – which was recognised as being pivotal for successful BGI execution, requiring unified efforts and cross-boundary collaboration.
- While suggestions were made to expand BGI networks through grant funding for flood risk and active travel, ongoing maintenance remains an unresolved challenge.
- To further support the case for BGI in Waterford, leveraging case studies or natural capital accounting methods from other regions was proposed.
- The use of additional data sets were proposed, such as those from the Bioweaving Regional Lab, water/flood risk assessments, land ownership records, and the mapping of back gardens for BGI purposes.

Organisations which attended Stakeholder Workshop 1:

Grow it Yourself

Hortitude

Kilkenny County Council

National Biodiversity Centre

South East Technological University

Southern Regional Assembly

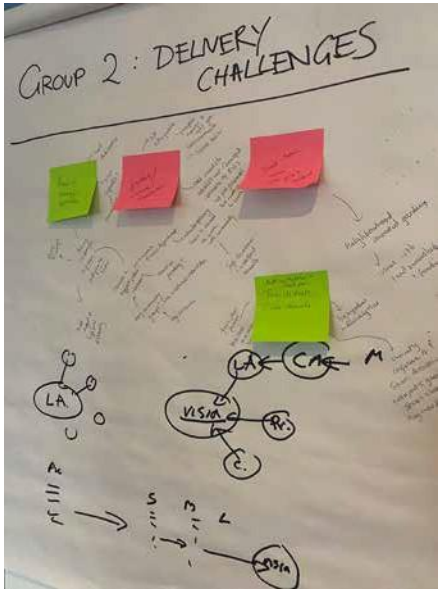
Trees for Life

Uisce Eireann

Waterford City & County Council

Waterford Sports Partnership

Wet Woodland Research



▲ Images from the first stakeholder workshop

Appendix B:

Further detail on biodiversity baseline and priorities for the Waterford MASP area

This Appendix provides further analysis to support the Nature-Rich Waterford theme (**see Chapter 2**), with a specific focus on the current state of protected habitats and species in the Waterford MASP area.

Protected Habitats and Species

The ecological character of the Waterford MASP is reflected in the diverse habitats present. These include “Annex I” Atlantic salt meadows and Mediterranean salt meadows which are to be restored to the favourable conservation condition. Protected species of the tidal reach of the Lower River Suir SAC supports otter and migratory salmon. The “Ballycanvan Big” area (which lies along an estuary channel of the Lower River Suir SAC at the north-eastern boundary of Waterford) also supports “Annex I” wet woodland alluvial forests with alder and ash.

The surrounding Suir catchment supports rare species. The River Clodiagh tributary, which supports freshwater pearl mussel. The River Barrow and River Nore SAC (of the Barrow Estuary downstream of Waterford) supports woodlands with killarney fern.

Proposed Natural Heritage Areas (pNHAs) offer additional areas for wildlife. “Annex I” Atlantic salt meadow habitat is present within King’s Channel pNHA - located within Little Island (River Suir SAC). Other rare habitats include the reedswamp and freshwater marsh of Kilbarry Bog pNHA and a patchwork of scrub, remnant marsh and tall reed swamp within the Grannyferry pNHA. Along the northern boundary of the Waterford MASP is a large lake at Lough Cullin pNHA. To the east is the Barrow River Estuary pNHA, which lies within River Barrow and River Nore SAC.

Other local biodiversity priorities

Waterford

The 2015 Waterford Habitat Survey identifies a range of rare habitat types which are dispersed in small parcels across the Waterford City area.

There are further pockets of broadleaf woodland near Ballinamona to the south. Elsewhere there are parcels of predominantly conifer plantation.

Dry meadows and grassy verges are present throughout the area, within parks around Williamstown and at Waterford Nature Park. The latter lies at the urban edge, with a mosaic of other habitats including bogs supporting reedbed and swamp, surrounded by a dense network of ditches.

Other less frequent habitats include pockets of scrub marsh, which offer important foraging and nesting habitat for birds, and refuge areas for reptiles.

Waterford is surrounded by agricultural land consisting of predominately improved grassland, amenity grassland and arable crops. This belt of countryside which surrounds the City is supported by a dense hedgerow network which, if well managed, offers species dispersal corridors across the landscape.

Within the urban setting, there are several extensive gaps in the habitat network, especially within the City Centre and surrounding built up areas of Waterford. What is present within the urban setting is mostly made up of trees and amenity grassland. However, there are no trees of special amenity value within the central core of the City Centre. Therefore, the ecological value of existing urban habitat is likely to be low.

Kilkenny

Aerial imagery was analysed, in the absence of habitat data for this area. The woodland cover and composition of Kilkenny is also very small in extent, with dispersed pockets of ancient woodlands, broadleaf, mixed and coniferous woodland.

The largest continuous area of ancient and long established woodland lies at Drumdowney, along the bank of the Barrow Estuary. There is also a pocket of ancient and long established woodland in Newrath near Grannyferry pNHA.

Broadleaf woodland is also located in Ballinaroughry (around the River Blackwater) at Rockshire and Bellmount. There are further areas of broadleaf and mixed woodland at Rathculliheen. There is also a parcel of conifer plantation at Ballynamona.

Other rarer habitats include bog habitat at Grannyferry pNHA, which supports a mosaic of reed and large sedge swamp (some of which lies within the River Suir SAC). This extends north from the Suir and lies adjacent to a large area of wet grassland at the confluence of three tributaries of the Black Water River. Other habitats which make up the bog mosaic are broadleaved woodland, scrub and recolonising bare ground and spoil within the area of brownfield (previously industrial) land.

The majority of the landscape is in agricultural use - arable and pastoral land with large areas of improved grassland. There are a few exceptions where we find semi-improved grassland or parkland habitats present, such as at Clover Meadows to the northeast of Ferrybank. There are networks of tree lines and hedgerows throughout the peri-urban farmed landscape. These surround the Ferrybank and Belview Port areas.

Appendix C:

Guidance for managing invasive alien species (IAS)

Purpose

A key threat to nature recovery and the provision of biodiverse BGI in Waterford, as with any city, is the invasion and spread of invasive alien species (IAS). Therefore, the following recommendations are provided with reference to the control and eradication of terrestrial and aquatic invasive species, in line with the "source-pathway-receptor model."

Legislation and policy

The EU Regulation on the prevention and management of the introduction and spread of invasive alien species [1143/2014] sets out the rules for preventing, minimising and mitigating the adverse impacts of the introduction and spread, both intentional and unintentional of Invasive Alien Species (IAS). As part of this regulation, there is a regularly updated list of IAS of Union concern. This runs in parallel with the European Union (Invasive Alien Species) Regulation 202.

Additionally, the European Communities (Birds and Natural Habitats) Regulations 2011 [477/2011] and Invasive Alien Species (Freshwater Crayfish) Regulations 2018 [354/2018] , transposes the regulations on control of invasive species from EU Law into Irish law.

The Waterford City and County Development Plan 2022-2028 includes policy objectives BD28 and BD29, which require the management and control of invasive species on all development sites and promotes raising awareness of invasive species.

Recommendations

It is recommended that as part of ecological assessment in relation to BGI proposals, consideration is made with regards to the potential presence of IAS.

Overarching recommendations relevant to the BGI strategy for the management and monitoring of invasive species are outlined below.

Management and Monitoring

Terrestrial Invasives

The management of terrestrial invasive species should involve the following key stages:

1. Survey and mapping of invasive species within spatial areas proposed for GBI. This should ideally be undertaken during the growing season February to October (inclusive) in order to gain an understanding of species extent.

2. Location-specific recommendations will be required as informed by ecological survey, including the provision of an Invasive Species Management Plan where deemed appropriate. This should include the following:

- Measures for control, treatment and (where possible) eradication of IAS. Treatment methods should follow best practice to prevent unnecessary harm to ecology and the environment, including soils and water.
- Details of appropriate biosecurity measures to prevent further spread of IAS during construction or operational activities associated with the development of BGI. The implementation of biosecurity measures within areas accessible to the public should also include public engagement and education around biosecurity including signage.
- Finally, it should make recommendation for monitoring and reporting as follows:
  - Reporting any re-growth or requirements for further treatment.
  - Reporting sightings to National Biodiversity Data Centre (based in Waterford, which manages the national invasive species

database): https://invasives.ie/what-can-i-do/report-sightings/

- Reporting on actions taken to control and prevent invasives through the Action on Invasives portal, enables auditing and better understanding of the local control of invasives: https://actionsoninvasives.biodiversityireland.ie/

Aquatic Invasives

Due to the nature of spread of aquatic invasive species, these should be managed through catchment-scale eradication. This requires cross-boundary collaboration between Councils, landowners, businesses, stakeholders and the public.

It is a strategic approach to managing invasive species through the identification and control of invasives at the upstream source and the control, eradication and prevention along all waterbodies within the catchment. This represents a top-down approach to invasives control along waterways.

Biosecurity

Ensure adherence to biosecurity measures in the development, delivery and operation of BGI to prevent the spread of invasives.

Promote the use of the “check, clean dry” approach to avoid harm to native biodiversity. These principles are available from: https://invasives.ie/biosecurity/check-clean-dry/

Guidance

Invasive Alien Species in Ireland (part of the National Biodiversity Centre) coordinates action on invasive species control and provides guidance including good practice management. This includes management standards for road infrastructure and action plans for species. It also provides resources for species identification and information guides.

Code of Practice and Pathway Action Plans

The delivery of biodiverse GBI should adhere to best practice including Codes of Practice , which provide important information on preventing the spread of invasive non-native species from industries such as horticulture and by water users .

Additionally, Ireland’s Pathway Action Plans provide useful actions and recommendations aimed at anglers, recreational boat users and watercraft and also those involved in the movement of soil and stone such as in construction and maintenance, land management or farming.

Additional resources

More information can be found on Ireland’s Invasive Species Network, which provides information on best practiced. This resource will be updated as new methods are trialled.

References

1 The Citizens' Assembly (2023). *Report of the Citizens' Assembly on Biodiversity Loss*. Available at: https://citizensassembly.ie/wp-content/uploads/Report-on-Biodiversity-Loss_mid-res.pdf [Accessed 17 October 2024]

2 NPWS (2019). *The Status of EU Protected Habitats and Species in Ireland.* Available at: https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf [Accessed 17 October 2024]

3 European Union. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1991&qid=1722240349976 [Accessed 12th November 2024]

4 Government of Ireland (2019). *Climate change – How we can look after nature*. Available at: https://www.gov.ie/en/publication/climate-action-nature/ [Accessed 12th November 2024]

5 Government of Ireland (1976). *Wildlife Act*. Available at: https://www.irishstatutebook.ie/eli/1976/act/39/enacted/en/html#zza39y1976 [Accessed 12th November 2024]

6 European Union. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147 [Accessed 12th November 2024]

7 European Union. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01992L0043-20130701 [Accessed 12th November 2024]

8 Government of Ireland. Available at: https://www.irishstatutebook.ie/eli/2023/act/25/enacted/en/print#sec1 [Accessed 12th December 2024]

9 Government of Ireland, Department of Housing, Planning and Local Government (n.d). *Project Ireland 2040, National Planning Framework*. Available at: https://www.npf.ie/ wp-content/uploads/Project-Ireland-2040-NPF.pdf

10 Government of Ireland (2021). *National Development Plan 2021-2030.* Available at: https://www.gov.ie/en/publication/774e2-national-development-plan-2021-2030/ [Accessed 12th November 2024]

11 NPF, National Policy Objectives: 58, 59, 60.

12 Government of Ireland, Department of Arts, Heritage and the Gaeltacht (2015). *National Landscape Strategy for Ireland 2015-2025*. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/95852/388d4758- in order 50c1-42bd-9adc-0bdfe1291765.pdf#page=null [Accessed 12th November 2024]

13 Government of Ireland (2024). *National Biodiversity Action Plan (2023-27)*. Available at: https://www.gov.ie/en/publication/93973-irelands-4th-national-biodiversity-action-plan-20232030/

14 Government of Ireland, Department of Culture, Heritage and the Gaeltacht (2019). *Biodiversity Climate Change Sectoral Adaptation Plan*. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/75638/f9fd4e79-c0ff-4323-8439-b96780631220.pdf#page=null [Accessed 12th November 2024]

15 National Biodiversity Data Centre (n.d). *All Ireland Pollinator Plan 2021-25.* Available at: https://pollinators.ie/ [Accessed 12th November 2024]

16 Government of Ireland (2021). *National Marine Planning Framework*. Available at: https://www.gov.ie/en/publication/a4a9a-national-marine-planning-framework/#:~:text=The%20National%20Marine%20Planning%20Framework%20%28NMPF%29%20brings%20together,and%20marine%20planning%20policies%20for%20each%20marine%20activity. [Accessed 12th November 2024]

17 Government of Ireland (2024). *General Scheme of Marine Protected Areas Bill 2022*. Available at: https://www.gov.ie/en/publication/2fd71-general-scheme-of-marine-protected-areas-bill-2022/ [Accessed 12th November 2024]

18 Waterford City and County Development Plan 2022-2028. Available at: https://www.waterfordcouncil.ie/media/plans_strategies/development-plan/2022-2028/Waterford%20City%20and%20County%20Development%20Plan%202022-2028%20Vol%201.pdf

19 Waterford County and Development Plan policy objectives: BD 01 – 03, BD 07 – 14, BD 21, W City 20.

20 Waterford County Council (2008) County Waterford Local Biodiversity Action Plan 2008-2013. Available at: https://www.waterfordcouncil.ie/media/heritage/Waterford%20County%20Biodiversity%20Plan.pdf

21 Kilkenny city and County Development Plan 2021 – 2027, 2021. Available at: https://www.kilkennycoco.ie/eng/services/planning/development-plans/city-and-county-development-plan/vol1-master-ccdp-2-11-2021.pdf

22 Kilkenny's Draft Biodiversity Action Plan. Available at: https://consult.kilkenny.ie/ga/system/files/materials/6880/F.Kilkenny%20Draft%20Biodiversity%20Action%20Plan%2024.pdf

23 Jones, L.P., Turvey, S.T., Massimino, D. and Papworth, S.K. (2020) Investigating the implications of shifting baseline syndrome on conservation. *People and Nature*, 2(4), pp.1131-1144. Available at: https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/pan3.10140 [Accessed 17 October 2024]

24 Washbourne, C. L., Wansbury, C. (2023). *ICE Manual of Blue-Green Infrastructure*. ICE Publishing. https://doi.org/10.1680/icembgi.65420

25 Fitzpatrick Associates (2012). *Updates on the Economic Value of Recreational Trails in Ireland*. Available at: https://www.sportireland.ie/sites/default/files/2019-10/update-on-economic-value-of-recreational-trails-in-ireland-final-report_0.pdf

26 EPA Research Programme (2014-2020). *Connecting with Nature for Health and Wellbeing*. Available at: https://www.epa.ie/publications/research/environment--health/JS---NEAR-Toolkit-FINAL-V1.6-1Oct20.pdf [Accessed 23rd December 2024]

27 Government of Ireland (2013). *Healthy Ireland: A Framework for Improved Health and Well-being (2013-2025).* Available at: https://www.hse.ie/eng/services/publications/corporate/hienglish.pdf [Accessed 12th November 2024]

28 Environmental Protection Agency (2015). *Connecting with Nature for Health and Wellbeing*. Availabale at: https://www.epa.ie/publications/research/environment--health/JS---NEAR-Toolkit-FINAL-V1.6-1Oct20.pdf [Accessed 12th November 2024]

29 Waterford Local Community Development Committee (n.d). *Healthy Waterford Strategic Plan 2018-2021*. Available at: https://www.healthywaterford.ie/wp-content/uploads/2019/01/FINAL-Healthy-Waterford-Strategic-Booklet-copy-low-res.pdf [Accessed 12th November 2024]

30 Government of Ireland, Department of Health (2019). *National Physical Activity Plan*. Available at: https://www.gov.ie/en/policy-information/b60202-national-physical-activity/ [Accessed 12th November 2024]

31 Government of Ireland, Department of Transport (2018). *Strategy for the Future Development of National and Regional Greenways*. Available at: https://www.gov.ie/en/publication/ed5d17-strategy-for-the-future-development-of-national-and-regional-greenwa/ [Accessed 12th November 2024]

32 Government of Ireland, Department of the Environment, Climate and Communications (2018). *National Marine Planning Framework*. Available at: https://www.gov.ie/en/publication/a4a9a-national-marine-planning-framework/ [Acessed 12th November 2024]

33 Government of Ireland (2009). *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas*. Available at: https://www.gov.ie/en/publication/93973-irelands-4th-national-biodiversity-action-plan-20232030/ [Acessed 12th November 2024]

34 RSES regional policy objectives: RPO 124, RPO 125, (RPO 200), (RPO 201).

35 Waterford City and County Policy Objectives: Place 13 and Trans 17.

36 One Waterford: Local Economic & Community Plan 2023-2029. Available at: https://waterfordcouncil.ie/services/community-and-sport/lecp/

37 Cycle Network Plan for Waterford, 2014. Available at: https://www.waterfordcouncil.ie/media/roads-transport/132041-Rep-001%201st%20Draft%20300dpi.pdf

38 Government of Ireland, Department of Health (2019). *National Physical Activity Plan for Ireland, 2022*. Available at: https://www.gov.ie/en/policy-information/b60202-national-physical-activity/

39 Waterford Healthy City, 2011. Available at: https://www.waterfordcouncil.ie/media/economic-development/reports/Making%20Health%20our%20Business%20-%20

City%20Profile%20for%20Waterford.pdf

40 Healthy Waterford Strategic Plan 2018-2021. Available at: https://www.healthywaterford.ie/wp-content/uploads/2019/01/FINAL-Healthy-Waterford-Strategic-Booklet-copy-low-res.pdf

41 Environmental Protection Agency, 2023. Interactive map for air monitoring stations. Available at: https://airquality.ie/?_gl=1*j7s7xj*_ga*MTEyMzczMDQwLjE3MDkyMTY5NzQ.*_ga_TPK2CK9KEX*MTcwOTIxNjk3My4xLjAuMTcwOTIxNjk3My4wLjAuMA

42 Kilkenny Economic Report 2023. Available at: https://kilkennycoco.ie/eng/services/economic-development/economic-report-q2-2023.docx

43 Healthy Waterford Strategic Plan 2018-2021. Available at: https://www.healthywaterford.ie/wp-content/uploads/2019/01/FINAL-Healthy-Waterford-Strategic-Booklet-copy-low-res.pdf

44 People, Place and Policy Growing Tourism to 2050, 2015. Available at: https://assets.gov.ie/15792/8b462712683748e7bcec6c7d5c7ecd2a.pdf

45 Waterford City & County, 2022. Waterford City & County Development Plan – Volume 2: Development Management Standards. Available at: https://waterfordcouncil.ie/documents/development-plan-2022-2028/

46 People and Place Waterford Heritage Plan 2017 – 2022. Available at: https://www.waterfordcouncil.ie/media/heritage/Heritage%20Plan%202017-2022.pdf

47 Waterford City & County Development Plan 2022-2028 – Chapter 10: Landscape, Coast/Marine and Blue Green Infrastructure. Available at: https://consult.waterfordcouncil.ie/en/consultation/waterford-city-county-development-plan-2022-%E2%80%93-2028/chapter/chapter-10-landscape-coast-marine-and-blue-green-infrastructure

48 Project Ireland 2040, National Planning Framework. Available at: https://www.npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf

49 Creative Waterford Strategy, 2022. Available at: https://consult.waterfordcouncil.ie/en/consultation/creative-waterford-strategy-2023-2027/chapter/culture-and-creativity-waterford

50 Case study in NPF (2018)

51 Waterford City & County Retail Strategy, 2020. Available at: https://www.waterfordcouncil.ie/media/meetings/2020/spcs/econ-dev/Presentation%20to%20Economic%20SPC%20on%20Waterford%20Retail%20Strategy%202020.pdf

52 Harnessing our Ocean Wealth, 2012. Available at: https://oar.marine.ie/bitstream/handle/10793/810/Harnessing%20Our%20Ocean%20Wealth%20Report.pdf?sequence=1&isAllowed=y

53 National Landscape Strategy for Ireland 2015-2025. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/95852/388d4758- in order 50c1-42bd-9adc-0bdfe1291765.pdf#page=null

54 Waterford Metropolitan Area Strategic Plan. 2020. Available at: https://www.southernassembly.ie/uploads/general-files/Waterford_Southern_Regional_Assembly_MASP_Report_Waterford_v2.pdf

55 PO Econ 23, UTL 02 and UTL 06.

56 KIlkenny City & County Development Plan 2021. Available at: https://kilkennycoco.ie/eng/services/planning/development-plans/city-and-county-development-plan/adopted-city-and-county-development-plan.html

57 Waterford City & County Development Plan 2022-2028. Volume 2- Development Management Standards. Available at: https://consult.waterfordcouncil.ie/en/system/files/materials/2264/Waterford%20City%20and%20County%20Development%20Plan%202022-2028%20Vol%202.pdf

58 Cycle 3 Suir Cathment Report (HA 16). 2024. Available at: Suir (https://catchments.ie/wp-content/files/catchmentassessments/16%20Suir%20Catchment%20Summary%20WFD%20Cycle%203.pdf)

59 Cycle Draft Suir Catchment Report (HA 16). 2021. Available at: Suir (catchments.ie)

60 Climate Action, Biodiversity & Environment, 2022. Available at: https://consult.waterfordcouncil.ie/en/consultation/waterford-city-county-development-plan-2022-%E2%80%93-2028/chapter/chapter-9-climate-action-biodiversity-environment

61 Ireland's National Recovery and Resilience Plan (NRRP), 2022. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/162639/e5f1a2bf-35aa-4e25-9a8a-9b49c8b0b50f.pdf#page=null

62 Ireland's National Recovery and Resilience Plan (NRRP), 2022. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/162639/e5f1a2bf-35aa-4e25-9a8a-9b49c8b0b50f.pdf#page=null

63 Government of Ireland (2023). *Climate Action Plan*. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/256997/b5da0446-8d81-4fb5-991e-65dd807bb257.pdf#page=null [Accessed 12th November 2024]

64 NPF Policies: NPO 62 and 64.

65 UK Government, Department for Infrastructure (Northern Ireland) (2021). *Flood Risk Management Plan 2021-2027*. Available at: https://www.infrastructure-ni.gov.uk/ articles/2nd-cycle-flood-risk-management-plan-2021-2027#:~:text=A%20Flood%20Risk%20Management%20Plan,the%20sea%20and%20surface%20water. [Accessed 12th November 2024]

66 Government of Ireland, Department of Communications, Climate Action and Environment (2018).

67 Government of Ireland, Department of Agriculture, Food and the Marine (2023). *Ireland's Forests - Statistics 2023*. Available at: https://www.teagasc.ie/news--events/daily/forestry/irelands-forests---statistics-2023.php

68 Governamnet of Ireland, Department of Agriculture, Food and the Marine (2022). *Ireland's Forest Strategy Implementation Plan – Draft for public consultation.* Available at: https://assets.gov.ie/237551/b0af026a-cc3a-4e92-a833-80ed6ae846fe.pdf

National Adaptation Framework, Planning for a Climate Resilient Ireland. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/76430/d35c3843-29c7-419a-b48b-ad5db2bfb118.pdf#page=null [Accessed 12th November 2024]

[Accessed 12th November 2024]

[Accessed 12th November 2024]

69 Inland Fisheries Ireland (n.d). *Planning for watercourses in the urban environment*. Available at: https://www.fisheriesireland.ie/sites/default/files/migrated/docman/IFIUrbanWatercoursesPlanningGuide.pdf [Accessed 12th November 2024]

Appendix 12
Airport Masterplan

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford Regional Airport

& Business Park Masterplan

1.0 Introduction

Waterford Airport and Business Park is located approximately 8km to the south of Waterford City Centre and approximately 5km north east of Tramore and is accessed from the R708 regional road which connects the facility to Waterford City. Since opening its doors in 1981, the Airport has, through a combination of both State and private capital investment, continually attempted to improved both the level of services available and the transport experience for its passengers.

The Airport has the potential to provide a variety of passenger and general aviation services for the South East Region, and in particular cater for private business aircraft, leisure and training flights. The Airport's infrastructure also supports a range of other activities which include a Pilot Training College, an International Academy of Travel, an Irish Coastguard Sikorsky helicopter hanger, an aircraft maintenance centre and a number of small aviation related businesses. Waterford Airport intends to build on its success and provide further valuable air links to and from the South East Region, providing convenient flights for business, leisure and tourism traffic. This Master Plan provides a blueprint for the future development of the Airport and its environs, which aims to ensure that the Airport is ideally placed to play a key role in the continued development of both Waterford and the South East Region.

The Airport Business Park is located on zoned lands to the immediate south of Waterford Airport. The 138 acre park has seen rapid development over the last decade and it now provides developers with the option of either serviced sites or purpose built office units. Wireless broadband services and Voice over IP (VoIP) technologies are available at the business park.

1.1 Strategic Context

Waterford Airport is a key component of the transport infrastructure in the South East Region and is a key strategic enabler to the future development of Waterford City and County. The continuing existence and development of the facility at Waterford Airport is key to the future availability of convenient and increasingly frequent air services and capacity increase connectivity, and assists in attracting tourists to the Region. This service and proximity to the Airport Business Park assists in attracting inward investment and harnessing competitive advantage.

The potential for Waterford Airport to develop as a transportation hub for the entire Southeast region has been greatly enhanced in recent years in the light of much needed upgrades to the region's roads infrastructure. Within a 60 minute travel distance, Waterford Airport has one of the largest regional catchment areas, and is within easy commuting from other major urban centres in the Region (i.e. Carlow, Clonmel, Dungarvan, Kilkenny, Waterford and Wexford).

The Airport's mission statement is:

> *"To serve local and regional air transport needs in the South East, providing connectivity for citizens, business users and the inbound tourist market in a safe environment, to act as a local hub for air transport activity and to act as an energiser for business activity in the region."*[1]

A new runway expansion programme identified by the Airport Board has the potential to meet the regional air travel demand by delivering the appropriate infrastructure to accommodate larger aircraft types that can deliver competitive offerings and opportunities to the people and businesses of the southeast.

The Council recognises the strategic importance of Waterford Airport to the future development of Waterford and the wider City Region, its central role in increasing the critical mass of Waterford City, and the improvement to the overall connectivity of the South East Region.

1.2 Policy Context

National Aviation Policy2 states that "Ireland recognises the important role that regional airports play in their areas and in regional development" and sets out a number of actions which are intended to support regional airports, including Waterford Regional Airport.

The National Planning Framework (NPF) recognises regional airports as "key infrastructure for national and regional development". Waterford Regional Airport is recognised in the NPF as a key strategic regional and national asset where it states that "*Waterford and the wider south-east region is served by a regional airport and the Port of Waterford at Belview and Rosslare-Europort, which are geographically close to EU trading partners and will be important in Ireland's response to Brexit*".

The Southern Regional Assembly's Regional Spatial and Economic Strategy (RSES) states at section 6 that the return of scheduled passenger services to Waterford Airport and associated investment in Infrastructure is one of the key elements in making the Waterford Metropolitan Area a successful enterprising Economic Engine Driving Metropolitan and Regional Enterprise Growth.

The RSES goes on to state at section 6.3 that:

- *Waterford Airport is a key piece of strategic infrastructure for the Waterford MASP and Gateway for the wider South-East Area*
- *Investment in a runway extension would enhance the international connectivity of Waterford for Business (including the large multi-national companies involved in export trade), support the development of TUSE Research and Development with international partners and provide for increased tourist traffic.*

- *The runway extension of 500m sought by the Airport Authority would provide for the accommodation of up to 1,700 flights per annum including larger Boeing 737 and Airbus A320 aircraft.*

In addition, Waterford MASP Policy Objective 13 states that:
It is an objective to support the further development of Waterford Airport and, in particular, the development of:

- an extension of the existing runway to accommodate larger aircraft;
- *improved transport linkages and services between the airport, Waterford City and the entire South-East Region, i.e. roads and public transport;*
- *measures to encourage additional operators offering services from this location;*
- the expansion and development of aviation related industries at the airport.

In this regard, Development Plans should incorporate policies to protect longer-term flight path public safety zones and to control uses which could adversely impact on the airport's operations or the potential for new runway development and extensions sufficient to handle larger aircraft.

Local Authorities should ensure that consideration of airport-related infrastructure and facilities is informed by an adequate level of environmental assessment including assessment of potential impacts on designated European Sites.

Furthermore, Waterford MASP Policy Objective 15 states that:
It is an objective to support investment in infrastructure, including increased capacity of road, rail, ports and Waterford Airport to maximise the potential of tourism subject to the outcome of environmental assessments and the planning process.

The Waterford Planning, Land Use and Transportation Strategy (PLUTS) views the Airport as a regional asset which has the capacity to provide direct air links between the South East and major airline hubs in the UK and Europe. The strategy sees the diversification of the role of the Airport as a key facilitator to its future success.

1.3 Airport and Business Park Development

Waterford Airport opened in December 1981 with a 1,200 metre runway that could accommodate single and twin-engine light aircraft. The Airport has a runway that is 1,433 metres long and 30 metres wide, and is classed as a Code 2 facility in terms of the International Civil Aviation

Organisation (ICAO) Annex 14 standards. There are 2 aprons at the Airport, one serving the Sea Air Rescue Facility and one adjacent to the Terminal building. There are 200 car parking spaces directly adjacent to the Terminal building.

The genesis of the Business Park was due to its location adjacent to the Airport. It was proposed to channel development into the Park which would benefit from the close proximity of the airport. To acknowledge existing development, the area was zoned for commercial use in the 2005 County Development Plan.

The Business Park area has since been increased with a number of permissions granted in the last Plan period. The total area of the Business Park is 138.6 hectares.To date, a variety of uses have been permitted within the park. Given the strategic context of the Airport and associated Business Park, there is a need to ensure the strategic and appropriate focus of the type of development which is permitted into this area.

Stafford's Wholesale Ltd. T/A Stafford's Bonded, Lockheed Avenue, Airport Business Park is a Designated Lower Tier Seveso III Establishment and Trans-stock Warehousing and Cold Storage Ltd., Christendom, Ferrybank, Co Waterford is a Designated Upper Tier Seveso III Establishment under the Directive. With regard to such sites, consultation distances are established within which there is an obligation to consult with the Health and Safety Authority and Waterford City and County Fire service, in respect of any development proposals.

1. 4 Infrastructure

1.4.1 Wastewater

There is no public sewerage scheme in the area, and wastewater is treated on site. Stormwater is attenuated and disposed of by the developers.

1.4.2 Water

The Airport and Business Park is served by the East Waterford Water Supply. It is considered that there is sufficient capacity to serve the development of the area. For emergency requirements, a supply of water is drained from the public supply over a 2 week period and is stored on site. This gradual extraction from the public water supply is necessary to ensure sufficient capacity or pressure to supply the Airport or Business Park in the event of an emergency.

1.4.3 Energy Supply

The ESB operates a 20kv power line along the route of the R875 & R685 and along part of the R708 adjacent to the site. There is also a 38kv network line running from Tramore to Butlerstown. The proximity of 3 no. 100kv stations at Butlerstown, Killoteran and Waterford suggests a reasonably reliable electricity supply to the industrial lands.

1.4.4 Road Network

The Airport and Business Park is served by the R708, which connects the R685 Tramore/Dunmore Road to the south to the Waterford Ring Road to the north. They are located 9km from Waterford City and Bellview Port and 5km from Tramore. Rosslare Port and Cork Port are located 85km and 137km away, respectively.

There are currently no public transport links to the Airport or Business Park.

1.5 Constraints on Development

Maps 1-5 provide details on the control zones surrounding the Airport. It is the policy of the Council to protect the Airport and surrounding lands from inhibiting or non-compatible development. To this end, the development of lands in the vicinity of the Airport for light industrial/commercial development must be mindful of its location adjacent to the Airport so as not to obstruct the safe and effective operation of the Airport function. The restrictions set out in the attached Maps will apply to any applications for development within the Airport Control Zones.

To further enhance the safety of residents in the area, the Council supports the establishment of Public Safety Zones at Waterford Airport.

1.6 Development Strategy

1.6.1 Waterford Regional Airport

The Council supports the development objectives of Waterford Regional Airport plc for the future development of the airport which are to:

- Increase the competitiveness of the South East Region and promote the balanced

development of the Region in accordance with the National Spatial Strategy;

- Promote the accessibility and attractiveness of the Region for both business and inbound tourism;
- Improve transport infrastructure for South East Region; and
- Provide and promote cargo facilities to support industry and inward investment in the Region.

To achieve the policy objectives set out above, Waterford City and County Council, in partnership with Waterford Regional Airport PLC, have proposed the development of an extension to, and widening of, the existing runway at Waterford Regional Airport along with associated works including widening of the taxiway, extension to the car parking area, re-alignment of security fencing, new navigation lighting, underground holding tank, demolition of two existing houses to the north of the runway and alterations to site drainage.

The proposed development would comprise the following principal elements:

a) Extension of the existing 1,433 metre long runway by 491 metres at its northern end and 363 at its southern end, resulting in a total runway length of 2,287metres;

b) Widening of the existing and extended runway from 30 metres in width to 45 metres in width;

c) Widening of the existing taxiway connecting the runway to the Airport Apron from 15 metres in width to 23 metres in width;

d) New landing lights to the north of the R708 at Keiloge;

e) Associated alterations to runway lighting, drainage and runway shoulders;

f) Demolition of two detached houses fronting onto the R708 at Ballygarran, at the northern end of the extended runway;

g) Construction of a new 205 space car park to the east of the existing car park, in front of the terminal building; and

h) All associated, drainage, landscaping and site works.

An application for the above has been submitted to An Bord Pleanála, and a decision is awaited in respect of the proposal. All future development works will be designed to ensure full compliance with both the Irish Aviation Authority and international aviation safety standards. .

As the Airport develops and there is a subsequent increase in demand for surface transport facilities, the Council in conjunction with Waterford Regional Airport plc will liaise with bus operators to develop a public transport link between Waterford City and the Airport and Business Park.

Policies relating specifically to the Airport are included within the main Development Plan, such as in Chapter 4 (Economy, Education and Retail).

1.6.2 Business Park

The Airport Business Park offers an opportunity to facilitate not only airport-dependent

enterprises, but also the types of those which can offer long-term prospects for generating revenues in new technologies and knowledge based areas, such as Information and Communications Technology, Medical Devices, Biotechnology, Pharmaceuticals, the Green Economy and Renewable Energy. There is also a need to continue to focus on channeling airport-related industries, and those with specific locational requirements to be close to the Airport, into the Business Park.

Activities which would cause atmospheric obscuration, attract bird concentrations, or cause other nuisance or hazards so as to obstruct the safe and effective operation of the Airport function shall be excluded from locating within the Business Park. The Council will encourage the development of businesses which engage in activities that are complementary to the role of the Airport.

1.6.3 Zoning

To allow for the future expansion of both the Airport and Business Park, these have been zoned for Airport (GZT N1.3), and Light Industry, Enterprise & Employment (GZT C2.1) – refer to Development Management Standards Zoning Matrix.

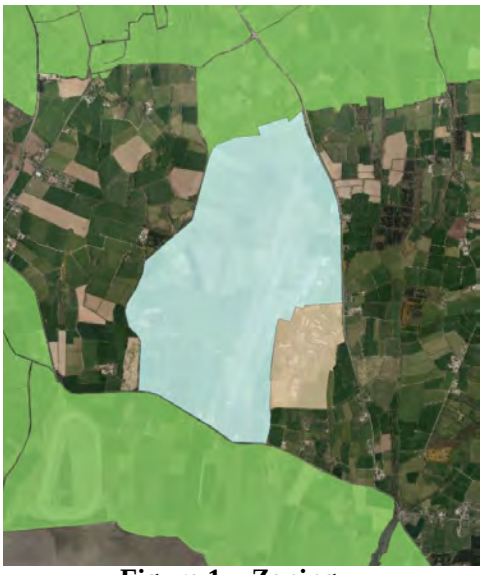
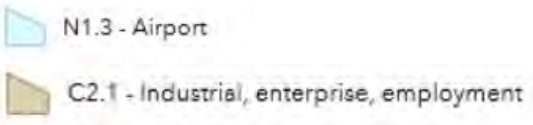


Figure 1 – Zoning



1.7 Development Management

1.7.1 Design, Layout and Materials

All future development works at the Airport and Business Park shall be in compliance with Appendix 1 - *Airport Control Zone – Explanatory Notes for Development Control in the Vicinity of Waterford Airport* and the Development Standards set out in Volume 2 (Development Management Standards) of the City and County Development Plan. In the application of this guidance material, the more stringent requirementwill always apply.

1.7.2 Noise

Noise is a concern for persons living under flight paths or in close proximity to the Airport. Air noise refers to noise from aircraft in flight or on the runway during take-off or after landing. Ground noise is other types of noise generated at the Airport such as the ground running of aircraft engines. To minimise both air and ground noise associated with the Airport, future planning applications should address Airport noise mitigation measures.

1.7.3 Natural Heritage

The Tramore Dunes and Back Strand are located approximately 1.2km to the south of the Airport and Business Park. This area is designated as a Special Area of Conservation (SAC), a Special Protection Area (SPA) and is also a proposed Natural Heritage Area (pNHA). In assessing both Airport and Business Park development proposals the Planning Authority will have due regard to any potential adverse impacts such proposals may have on this area.

An Appropriate Assessment will be carried out at project level to ensure that there is no negative impact on the integrity (defined by the structure and function and conservation objectives) of the Natura 2000 site at Tramore Dunes and Backstrand and that the requirements of Articles 6 (3) and (4) of the EU Habitats Directive 92/43/EEC are fully satisfied.

1.7.4 Landscaping

Landscaping is a particularly important issue for Waterford Airport and Business Park due to the exposed and elevated nature of the area. Future development proposals at the Airport and Business Park shall be required to prepare landscape management plans that reduce the visual impact of development on the landscape. For reasons of aviation safety, deterring birds from the airfield is an important landscaping consideration.

1.7.5 Referrals of Planning Applications

Applications in the vicinity of the Airport will be referred to the Irish Aviation Authority for comment to ensure that proposed development does not have adverse technical or other implications for the safety and/or normal operation of the Airport.

APPENDIX 1: AIRPORT CONTROL ZONES

The purpose of this document is to provide the Council and the public, information to ensure that the lands surrounding the airport can be protected through the application of development and land use controls, so that the operation and future development of Waterford Airport can be safeguarded. This document defines the required land use protection for lands adjacent to and surrounding the airport in terms of protection against erection of obstacles that are hazardous to aviation, the presence of features and activities that have a negative effect upon propagation of radio frequency emissions from air navigation aids which are necessary for safe and accurate navigation in the airspace of Waterford Airport, and guide proper land uses for lands potentially subject to aircraft noise.

1.0 LAND PROTECTION FROM AIRCRAFT NOISE IMPACT

1.1 Aircraft Noise & Land Use Impacts

To protect the public from the adverse effects of aircraft noise, it is important to control development of certain land uses within those lands that potentially would be subject to various levels of aircraft noise. This will protect the community by ensuring that no new land uses are permitted that could cause disturbance to residents and users of those lands.

Contours of expected levels of aircraft noise have been developed and provide an illustration of the extent and location of areas that are potentially affected by specific aircraft noise levels. The noise contours are developed on the basis of forecasted aircraft movements at the airport for a peak period of operation using an internationally recognised Integrated Noise Model (INM).

The premise for land use zoning within the aircraft noise lands is that certain human activities can be permitted to exist, and to be developed further, where the predicted future level of aircraft noise would not cause serious noise disturbance, or result in adverse effects on the health of those living or working in areas subject to aircraft noise emissions.

Areas in which serious noise disturbance or mental health effects might be predicted to arise as a result of aircraft noise, would be classed as restricted, or even prohibited, from further development for human activities.

The following table, Table 1-1, lists the typical land uses permitted within areas affected by specific noise levels and should be read in conjunction with **Map 1**.

Table 1 -1: Typical Land Uses Permitted within Specific Noise Contour Levels

Aircraft Noise Contour	Permitted Uses and Development
< 57 dBA	Residential Outdoor Recreational Facilities Commercial Public Facilities Municipal Utilities Industrial Transportation Agriculture
57-63 dBA	Limited Outdoor Recreation Facilities Commercial Limited Public Facilities Municipal Utilities Industrial Transportation Agriculture
63-69 dBA	Limited Outdoor Recreation Facilities Commercial Municipal Utilities Industrial Transportation Agriculture
> 69 dBA	Limited Outdoor Recreation Facilities Limited Commercial Municipal Utilities Industrial Transportation Agriculture

Guidance on aircraft noise and land uses within lands around an airport that prevail in the UK specifies that development should not occur in a noise contour band where predicted noise levels could be greater than 72 dBA. Noise modelling carried out for Waterford Airport, based on forecasted air traffic levels, suggests that this level of aircraft noise emission would be unlikely to affect any of the lands outside the airport, and would be confined to the immediate area of/ surrounding the runway.

2.0 OBSTACLE LIMITATION SURFACES PROTECTION

2.1 Definition of Protected Obstacle Limitation Surfaces

Ireland has adopted the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO) to control the existence and erection of obstacles to aviation that might endanger aircraft in flight. Under regulations established for this purpose, all public airports are to be safeguarded against erection of obstacles in accordance with Obstacle Limitation Surfaces (OLS) that restrict or prohibit obstacles around an airport, and especially within the safety- critical areas off the ends of the runway that serve to protect the runway approach and take- off operations.

The OLS are imaginary planes that define the maximum allowable height of obstacles within the approach and take-off areas of the runway (Approach and Take-Off Surfaces), along the sides of a runway strip (Transitional Surfaces), and for a distance around the airport (Inner Horizontal and Conical Surfaces). No obstacles are permitted to penetrate these surfaces unless a valid safety case can be made ensuring that aircraft will not be in danger should an obstacle protrude through the OLS.

The OLS specifications reflect the code of the runway, whether the runway has instrument guidance for approach and landing, and whether that guidance is provided in the vertical plane or not. In the case of Waterford Airport, the ultimate runway is classed as an ICAO Code 4 Runway with a precision instrument approach. The OLS referred to in this section as necessary for the protection of Waterford Airport are also illustrated in **Map 2**.

2.2 Instrument Approach and Missed Approach Protection

In addition to the established OLS surfaces and the obstacle protection required for them, the instrument approach procedures in place at an airport also have a need for protection against the effects of obstacles on flight operations. The airport must apply the ICAO Annex 14 OLS for the purposes of airport licensing and certification, and apply the ILS protection surfaces on top of these in order to protect the integrity of the ILS instrument approach for the runway(s) at Waterford Airport.

2.3 Obstacle Limitation Surface Protection

In the following section the required obstacle protection areas at and around Waterford Airport, and the limitations to be applied on the maximum height of obstacles existing or erected within these areas, are defined.

It should be noted that while the OLS establish the maximum elevation to which an obstacle may be erected within the various OLS areas, this does not mean that it is always safe to erect obstacles to the maximum permitted elevation, or to erect any obstacles. A proliferation of obstacles, even when fully compliant with the OLS, would be undesirable in the vicinity of an airport. Where an application is made to erect an obstacle within one of the protected OLS areas, reference will be made to the Irish Aviation Authority so that an aeronautical assessment may be made of the effect that such an obstacle may have on the safety of flight operations at the airport.

Map 2 illustrates the location and extent of the required obstacle limitation surfaces, within which assessment and control of obstacles is required under the applicable aviation regulations.

2.3.1 Sections 1 & 2 (Inner Horizontal Surface)

Within this zone the following are not permitted:

1. Buildings or structures exceeding the maximum height of the Inner Horizontal surface;
2. Facilities that may attract wildlife, especially birds, due to the proximity of low altitude aircraft operations

NOTE: No building or structure exceeding 25m in height should be erected within this area without consultation with the airport.

2.3.2 Sections 3 & 4 (Conical Surface)

Within this zone the following are not permitted:

1. Building or structures that exceed the allowable maximum elevation at a specified point in the conical surface as defined in Section 2.0.

2. Facilities that may attract wildlife, especially birds, due to the proximity of low altitude aircraft operations.

NOTE: No building or structure exceeding 40m in height should be erected within this area without consultation with the airport.

2.3.3 Sections 5 & 6 (Approach & Take-Off Surfaces – Sloping Sections)

Within this zone the following are not permitted:

1 Building or structures that exceed the maximum allowable elevation at a specified point within the approach or take-off surfaces as defined in Section 2.0;
2 Facilities that may attract wildlife, especially birds, due to the proximity of low altitude aircraft operations;
3 Buildings and structures constructed in compliance with the obstacle limitations of these surfaces may still pose a hazard to aircraft operations and all planning applications for buildings within the airport approach and take-off areas should be assessed in consultation with the airport.
4 Facilities that would increase the severity of an aircraft incident or accident, even though these facilities do not in themselves pose a safety hazard to aircraft operations. For example, sporting complexes that would accommodate large numbers of visitors should not be located within an approach or take-off area, even if the height of the structure is not in violation of the OLS.

NOTE: Noise contours and their associated uses should also be consulted when assessing land use for lands lying within Sections 5 and 6.

2.3.4 Sections 7 & 8 (Approach & Take-Off Surfaces – Horizontal Section)

Within this zone the following are not permitted:

1 Building or structures that exceed the elevation of the horizontal section of the approach surface.
2 Buildings or structure exceeding 15m in height should not be erected within this area without consultation with the airport.
3 Buildings and structures that may affect visibility or operations but which are constructed adjacent to but outside these areas may still pose a hazard to aircraft operations. Any

application for planning permission for lands on the edges of, but immediately adjacent to, the approach and take-off areas should be referred to the airport for consideration as to their potential impact on flight safety.

4 Facilities that may attract wildlife, especially birds, due to the proximity of low altitude aircraft operations should not be permitted.

2.3.5 Sections 9 & 10 (Transitional surfaces)

Within this zone the following are not permitted:

1 Buildings or structures that exceed the permitted elevation of the transitional surfaces should not be permitted in these areas;

2 Buildings or structures that exceed 25m in height should not be erected beneath a runway transitional surface;

3 Facilities that may attract wildlife, especially birds, due to the proximity of low altitude aircraft operations should not be permitted within an area restricted by a runway transitional surface

2.3.6 Sections 11 & 12 (ILS Transitional Surfaces)

Within this zone the following are not permitted:

1. Buildings or structures that exceed the permitted elevation of the ILS transitional surfaces.

2.3.7 Sections 13 & 14 (ILS Missed Approach Surface)

Within this zone the following are not permitted:

1 Buildings or structures in a location that results in their top elevation exceeding the permitted obstacle limitation surface for the ILS Missed Approach operation.

3.0 PUBLIC SAFETY ZONES

Public Safety Zones (PSZs) are areas beyond the ends of airport runways in which some form of land use control is deemed to be necessary in order to protect the public against the accident risk arising from overflying aircraft failing to remain airborne and impacting inside the high risk areas off the ends of a runway. The zones themselves are defined by contours of

individual risk and are created by computer modelling to map individual third party risk exposure for the nature and level of aircraft operations forecast for any particular runway, as well as the frequency of crash accidents and their consequences. Land uses within the Public Safety Zones are required by law to be controlled by planning authorities.

The shape of the PSZ is reflective of an "inverted triangle" due to the method in which risk is calculated and mapped. The base of the triangle is located along the runway threshold and represents a larger area of land due to the greater risk of an accident closer to the end of a runway. The tip, or apex, of the triangle is located farthest from the runway and represents the least amount of land protection due to the lower level of accident risk arising in this area.

Map 3 displays the PSZ contours applied for Waterford Airport.

The Public Safety Zones developed for Waterford Airport do not have any major development located within the two risk contour bands. The land beyond the ends of the runway is mostly used for agricultural purposes with sporadic dwellings and farm structures. As the implementation of the Public Safety Zones are not retro-active, existing dwellings are permitted to remain within the PSZ.

4.0 PROTECTION FOR NAVIGATIONAL AIDS

Waterford Airport currently has an instrument approach system that comprises an Instrument Landing System (ILS) localizer and glidepath installation. The electromagnetic energy broadcast from the localiser and glidepath installations is susceptible to interference from electrical discharge andpresence of large metallic objects in close proximity to the antennae. As these instruments are used for navigational guidance in critical phases of flight, the environment surrounding the antennae structures must be protected from electromagnetic interference.

The following guidelines are provided for protection of navigational aids.

4.1 Instrument Landing System

4.1.1 ILS Localiser

The ILS localiser requires a safeguarded area that comprises 2 parts, with the following characteristics and restrictions:

Part A: Within a circle 75m radius centred on the localizer array

- No objects higher than 1.2m;

Part B: Within a rectangle 365m x 610m centred on the localizer array

- No metallic objects higher than 1.2m
- No objects higher than 2.5m

4.1.2 Glidepath Antenna

The ideal safeguarding for the glidepath antenna is a triangular shaped area commencing at the antenna array, extending out to a distance of 1500m towards the landing aircraft, and diverging at 150 from the origin. The area should be free of all metallic objects, power lines, telephone lines, and roads. However, this may not always be achievable and, as a result, a minimum clear distance of 600m is stipulated in front of the glidepath antenna.

4.1.3 VHF Omni-directional Range

The VOR will require an object-free area of 300m radius centred on the VOR. This area cannot include any natural or man-made objects. However, any existing object that cannot be relocated outside this radius will require study to ensure that the object does not cause electromagnetic interference or obscures the VOR transmission in critical directions used for air navigation.

Map 4 illustrates the protected flight zones for Navigational Aids for Waterford Airport.

5.0 Establishment of Laser Protected Flight Zones

Laser protected flight zones are established around an airport in accordance with ICAO Annex 14 to mitigate the effect of laser operations on low flying aircraft.

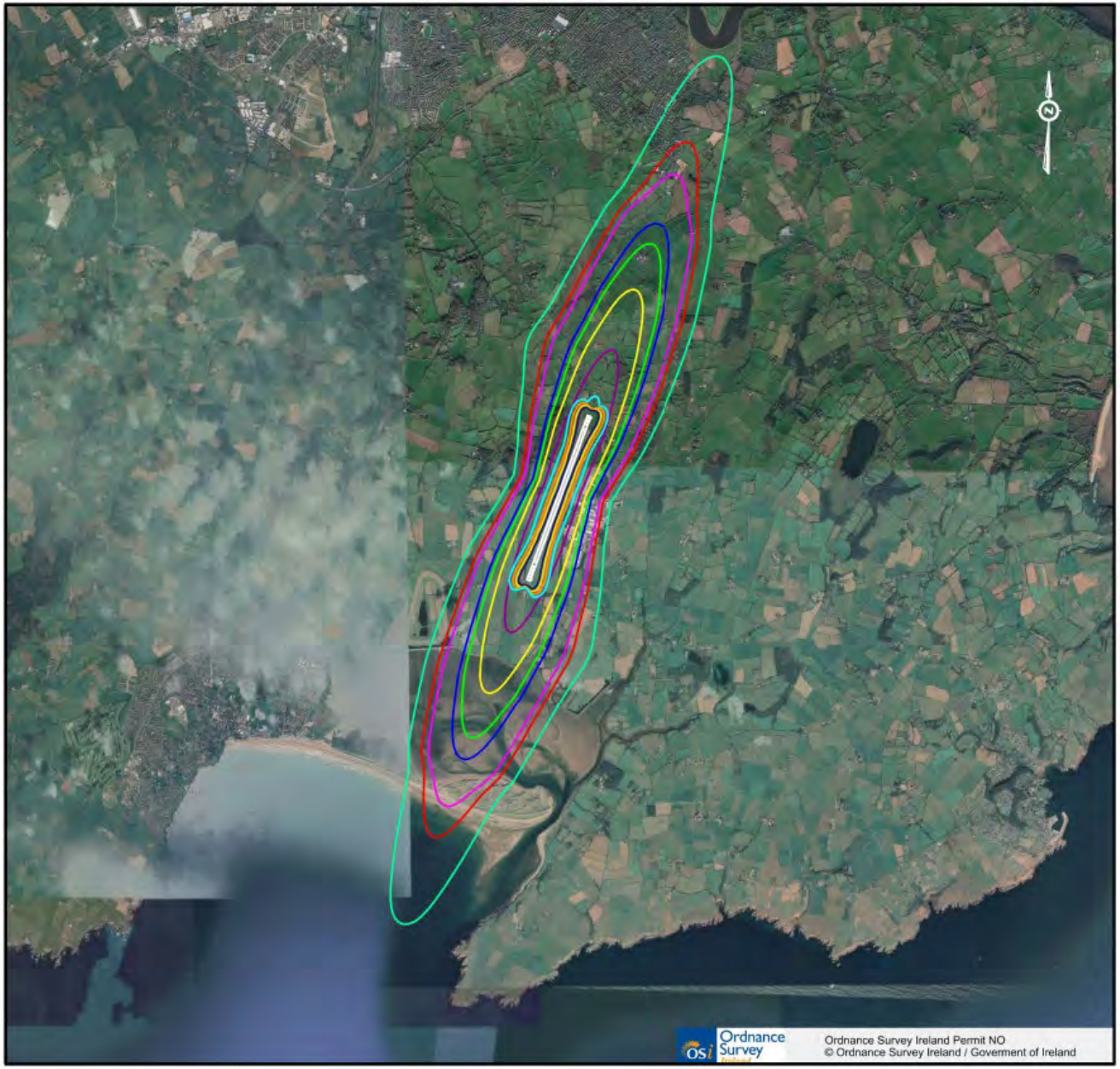
There are three zones located around the airport:

- Laser-Beam Free Flight Zone (LFFZ): Laser irradiance level to not exceed 50nW/cm2
- Laser-Beam Critical Flight Zone (LCFZ): Laser irradiance level to not exceed 5µW/cm2
- Laser-Beam Sensitive Flight Zone (LSFZ): Laser irradiance level to not exceed 100µW/cm2

Map 5 illustrates the Laser Bean Protection Areas for Waterford Airport.

The dimensions vary depending on the type of zone. Both the LFFZ and the LCFZ have defined dimensions stated in the aviation safety regulations, however the LSFZ is determined based on the area surrounding the airport.

Laser operations may be conducted within these areas so long as the irradiance of the laser does not exceed the stated value for the flight zone. Notification to the airport and the IAA of laser operations may also be required. The airport may be required to issue a NOTAM should it be deemed that laser operations may affect critical areas of flight, regardless of the laser irradiance level.



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Waterford City & County Council

Legend

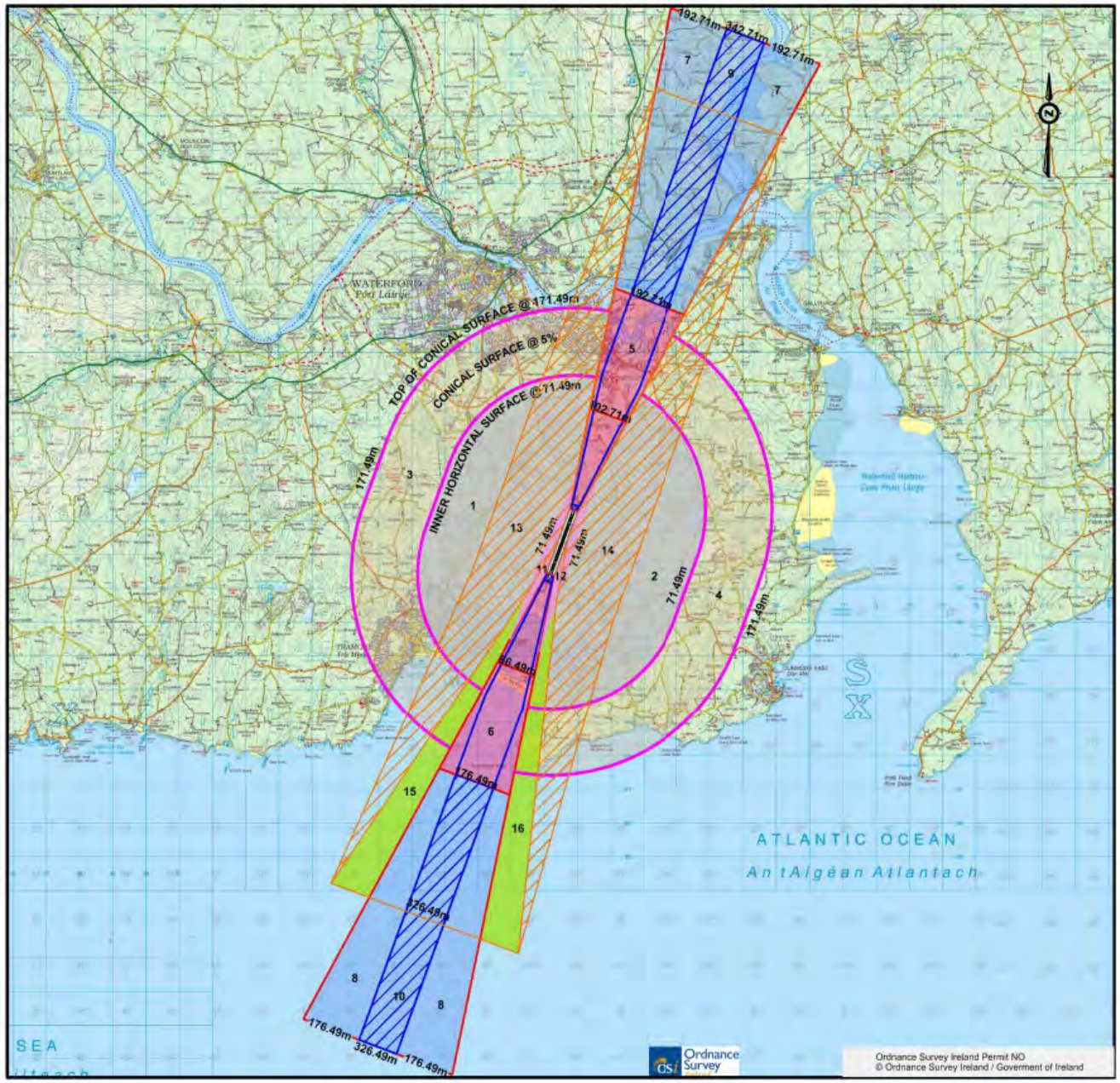
- 48 dB LAeq
- 50 dB LAeq
- 51 dB LAeq
- 54 dB LAeq
- 55 dB LAeq
- 57 dB LAeq
- 60 dB LAeq
- 63 dB LAeq
- 66 dB LAeq
- 69 dB LAeq
- 72 dB LAeq

Map 1

Waterford Airport
Composite Aircraft Noise Impact Contours
for Purposes of Land Use Zoning

Scale

0 500m 1500m 2500m



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Waterford City & County Council

Waterford Airport

Notes:

1. Obstacle Safeguarding Surfaces based on Code 4 aircraft operations with Precision Approach for Runway 21 and Non-Precision Approach for Runway 03 (Reference: EASA Regulation EU No.139/2014, Chapter J Obstacle Limitation Surfaces CS ADR DSNJ.475, 480 & 485)
2. ILS Obstacle Protection surfaces based on ILS Surfaces defined in ICAO Doc 8168 OPS/611 Procedures for Air Navigation Services Volume 2.
3. All elevations are expressed in metres above mean sea level.

Legend

- 1 & 2 Inner Horizontal Surfaces
  Maximum Elevation 71.49m
- 3 & 4 Conical Surfaces
  Maximum Elevation 171.49m @ 5%
- Approach Surfaces
  5 ~ Maximum Elevation 192.71m
  6 ~ Maximum Elevation 176.49m
- Horizontal Approach Surfaces
  7 ~ Maximum Elevation 192.71m
  8 ~ Maximum Elevation 176.49m
- Take-Off Surfaces
  9 ~ Maximum Elevation 342.71m
  10 ~ Maximum Elevation 326.49m
- 11 & 12 Transitional Surfaces
  Maximum Elevation 71.49m
- 13 & 14 ILS Transitional Surfaces
  Maximum Elevation 326.49m
- 15 & 16 ILS Missed Approach Surfaces
  Maximum Elevation 326.49m

Map 2
Waterford Airport
Safeguarding

Scale
0 1km 2.5km 5km

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Waterford City & County Council

Waterford Airport

Legend

Boundary of area subject to Individual Risk of 1 in 10,000 per year or greater

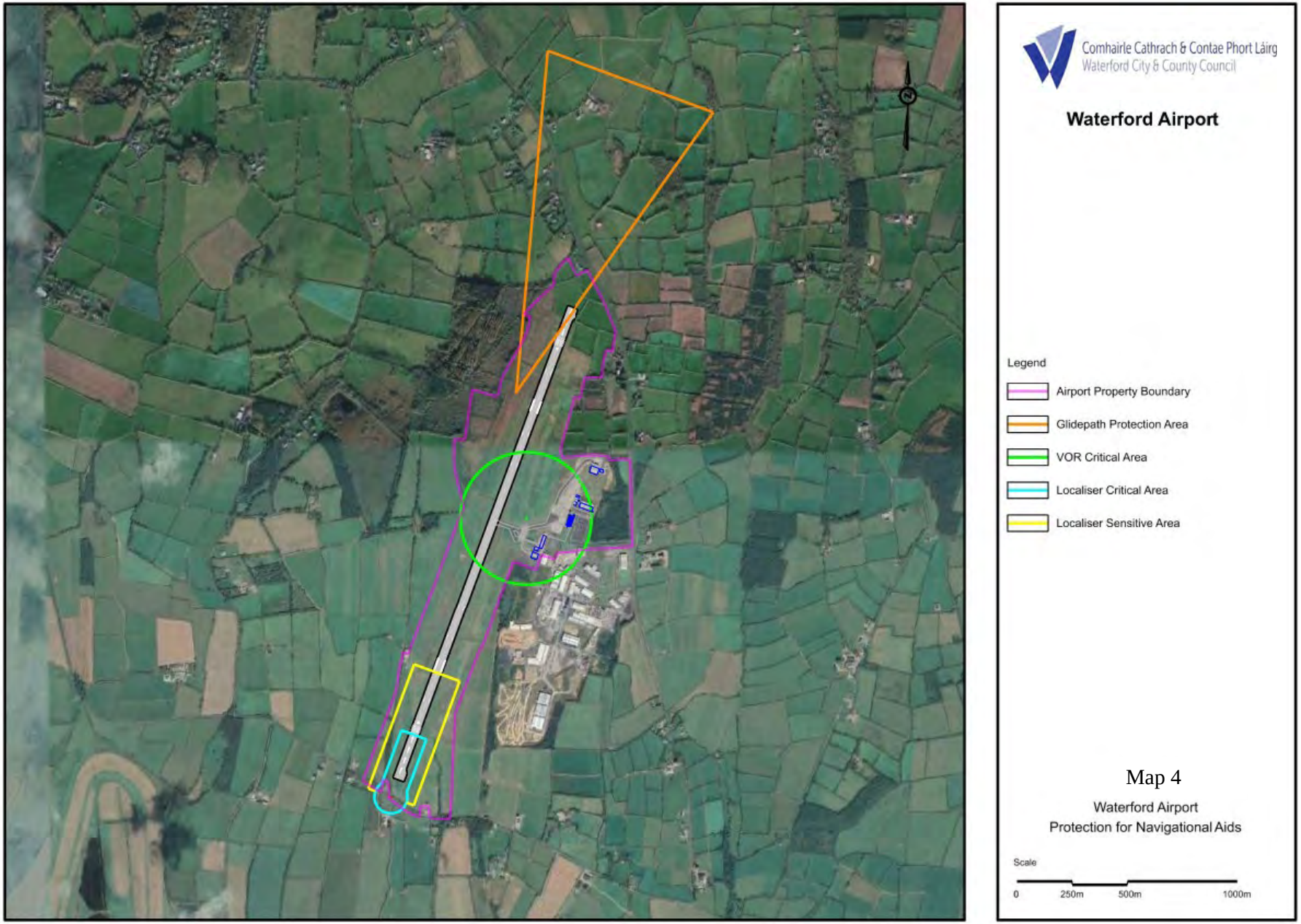
Boundary of Public Safety Zone subject to Individual Risk of 1 in 100,000 per year or greater

Map 3

Waterford Airport
Public Safety Zones

Scale

0 250m 500m 1000m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Waterford City & County Council
Waterford Airport
Legend
Airport Property Boundary
Glidepath Protection Area
VOR Critical Area
Localiser Critical Area
Localiser Sensitive Area
Map 4
Waterford Airport
Protection for Navigational Aids
Scale
0
250m
500m
1000m

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Waterford City & County Council

Waterford Airport

Map 5

Waterford Airport
Laser Beam Protection Areas

Scale
0 1.5km 3km 5km

Appendix 13
Strategic Flood Risk Assessment

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Strategic Flood Risk Assessment for the Waterford City and County Development Plan 2022-2028

Final Report

June 2022

Comhairle Cathrach & Contae Phort Láirge

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Revision History

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Rev 3 / 09/10/2019		Waterford City and County Council
Rev 4 / 11/05/2021		Waterford City and County Council
Rev 5 / 10/06/2021	To support Draft Development Plan	Waterford City and County Council
Rev 6 / 15/06/2021	Minor updates	Waterford City and County Council
Rev 7 / 22/11/2021	To support CE report	Waterford City and County Council
Rev 8 / 22/02/2022	Incorporating MA	Waterford City and County Council
Rev 9 / 27/04/2022	Awaiting final zonings	Waterford City and County Council
Rev 10 / 01/06/2022	Final zonings updated	Waterford City and County Council

Contract

This report describes work commissioned by Hugh O'Brien, on behalf of Waterford County Council, by a letter dated 23rd June 2015. Elizabeth Russell of JBA Consulting carried out this work.

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Purpose

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Abbreviations

AEP	Annual Exceedance Probability
AFA	Area for Further Assessment
CFRAM	Catchment Flood Risk Assessment and Management
DoEHLG	Department of the Environment, Heritage and Local Government
DTM	Digital Terrain Model
FRA	Flood Risk Assessment
FRMP	Flood Risk Management Plan
GIS	Geographical Information System
HEFS	High End Future Scenario
ICPSS	Irish Coastal Protection Strategy Study
LA	Local Authority
LAP	Local Area Plan
mOD	Meters above Ordnance Datum
MRFS	Medium Range Future Scenario
OPW	Office of Public Works
OS	Ordnance Survey
PFRA	Preliminary Flood Risk Assessment
SAC	Special Area of Conservation, protected under the EU Habitats Directive
SFRA	Strategic Flood Risk Assessment
SPR	Standard percentage runoff
SUDS	Sustainable Urban Drainage Systems
Tp	Time to Peak

1 Study Background

JBA Consulting was appointed by Waterford City and County Council (WCCC) to carry out the Strategic Flood Risk Assessment (SFRA) for the Waterford County Development Plan 2022-2028.

This report details the SFRA for the county and has been prepared in accordance with the requirements of the DoEHLG and OPW Planning Guidelines, The Planning System and Flood Risk Management[1]; these guidelines were issued under the Planning and Development Act 2000, as amended, and recognise the significance of proper planning to manage flood risk.

The SFRA has been reviewed and updated to have regard to the proposed Material Alterations to the County Development Plan.

1.1 Scope of Study

Under the "Planning System and Flood Risk Management" guidelines, the purpose for the SFRA is detailed as being *"to provide a broad (wide area) assessment of all types of flood risk to inform strategic land-use planning decisions. SFRAs enable the LA to undertake the sequential approach, including the Justification Test, allocate appropriate sites for development and identify how flood risk can be reduced as part of the development plan process".*

The Waterford City and County Development Plan 2022-2028 (DP) will be the key document for setting out a vision for the development of the county during the plan period.

It is important that the DP fulfils the requirements of the document “The Planning System and Flood Risk Management Guidelines for Planning Authorities” (OPW/DoEHLG, 2009) which states that flood risk management should be integrated into spatial planning policies at all levels to enhance certainty and clarity in the overall planning process.

In order to ensure that flood risk is integrated into the DP, the main requirements of this document are to:

- Produce flood zone mapping.
- Prepare a Stage 2 - Flood Risk Assessment of County Waterford in particular in relation to location and type of zoning and land-use proposals. Where required, undertake a Stage 3 Detailed FRA.
- Advise on zonings/land use-proposals, assess and report on any submissions received as part of both the preparation and the public consultation stage of the plan, as they relate to flood risk.

1.2 SFRA Approach

This study considers the development strategy that will form part of the Development Plan for County Waterford. The context of flood risk in Waterford is considered with specific reference to a range of flood sources, including fluvial, tidal, pluvial, groundwater, sewer and artificial reservoirs and canals.

A two-stage assessment of flood risk was undertaken, as recommended in 'The Planning System and Flood Risk Management' guidelines, for the area that lies within the development boundary of the Development Plan. The first stage is to identify flood risk and is based on a variety of data sources, which are detailed in Section 4. There are numerous settlements which have an extremely limited risk of flooding and development can be progressed without regard to fluvial or coastal flooding. However, historical records and recent events demonstrate that parts of the county have a risk of flooding and confirm that a proportion of zoned lands are at flood risk.

The second stage, and the main purpose of this SFRA report, is to appraise the adequacy of existing information, to prepare an indicative flood zone map, based on available data, and to highlight potential development areas that require more detailed assessment on a site specific level. The SFRA also provides guidelines for development within areas at potential risk of flooding, and specifically looks at flood risk and the potential for development within the county settlements.

2 The Planning System and Flood Risk Management Guidelines

2.1 Introduction

Prior to discussing the management of flood risk, it is helpful to understand what is meant by the term. It is also important to define the components of flood risk in order to apply the Principles of the Planning System and Flood Risk Management in a consistent manner.

The Planning System and Flood Risk Management: Guidelines for Planning Authorities, published in November 2009, describe flooding as natural processes that can occur at any time and in a wide variety of locations. Flooding can often be beneficial, and many habitats rely on periodic inundation. However, when flooding interacts with human development, it can threaten people, their property and the environment.

This Section will firstly outline the definitions of flood risk and the Flood Zones as a planning tool; a discussing of the principles of the planning guidelines and the management of flood risk in the planning system will follow.

2.2 Definition of Flood Risk

Flood risk is generally accepted to be a combination of the likelihood (or probability) of flooding and the potential consequences arising. Flood risk can be expressed in terms of the following relationship:

Flood Risk = Probability of Flooding x Consequences of Flooding

The assessment of flood risk requires an understanding of the sources, the flow path of floodwater and the people and property that can be affected. The *source - pathway - receptor model*, shown below in Figure 2-1 illustrates this and is a widely used environmental model to assess and inform the management of risk.

Figure 2-1: Source Pathway Receptor Model

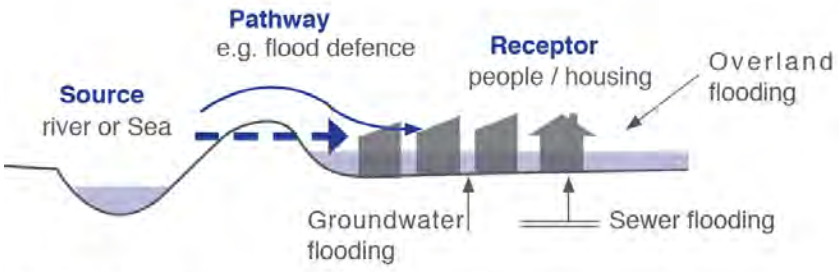


Fig. A1: Sources, pathways and receptors of flooding

Source: Figure A1 The Planning System and Flood Risk Management Guidelines Technical Appendices

Principal sources of flooding are rainfall or higher than normal sea levels while the most common pathways are rivers, drains, sewers, overland flow and river and coastal floodplains and their defence assets. Receptors can include people, their property and the environment. All three elements must be present for flood risk to arise. Mitigation measures, such as defences or flood resilient construction, have little or no effect on sources of flooding but they can block or impede pathways or remove receptors.

The planning process is primarily concerned with the location of receptors, taking appropriate account of potential sources and pathways that might put those receptors at risk.

2.3 Likelihood of Flooding

Likelihood or probability of flooding of a particular flood event is classified by its annual exceedance probability (AEP) or return period (in years). A 1% AEP flood indicates the flood event that will occur or be exceeded on average once every 100 years and has a 1 in 100 chance of occurring in any given year.

Return period is often misunderstood to be the period between large flood events rather than an average recurrence interval. Annual exceedance probability is the inverse of return period as shown in Table 2-1.

Table 2-1: Probability of Flooding

Return Period (Years)	Annual Exceedance Probability (%)
2	50
100	1
200	0.5
1000	0.1

Considered over the lifetime of development, an apparently low-frequency or rare flood has a significant probability of occurring. For example:

- A 1% flood has a 22% (1 in 5) chance of occurring at least once in a 25-year period - the period of a typical residential mortgage;
- And a 53% (1 in 2) chance of occurring in a 75-year period - a typical human lifetime.

2.3.1 Consequences of Flooding

Consequences of flooding depend on the hazards caused by flooding (depth of water, speed of flow, rate of onset, duration, wave-action effects, water quality) and the vulnerability of the receptors (type of development, nature, e.g. age of structure, of the population, presence and reliability of mitigation measures etc).

The Planning System and Flood Risk Management guidelines provide three vulnerability categories based on the type of development, which are detailed in Table 3.1 of the Guidelines, and are summarised as:

- Highly vulnerable, including residential properties, essential infrastructure and emergency service facilities;
- Less vulnerable, such as retail and commercial and local transport infrastructure;
- Water compatible, including open space, outdoor recreation and associated essential infrastructure, such as changing rooms.

2.4 Definition of Flood Zones

In the Planning System and Flood Risk Management guidelines, flood zones are used to indicate the likelihood of a flood occurring. These Zones indicate a high, moderate or low probability of flooding from fluvial or tidal sources and are defined below in Table 2-2. They do not take other sources of flood water, such as groundwater or pluvial, into account, so an assessment of risk arising from such sources should also be made.

It is important to note that the definition of the Flood Zones is based on an undefended scenario and does not take into account the presence of flood protection structures such as flood walls or embankments. This is to allow for the fact that there is a residual risk of flooding behind the defences due to overtopping or breach and that there may be no guarantee that the defences will be maintained in perpetuity.

Table 2-2: Definition of Flood Zones

Zone	Description
Zone A High probability of flooding.	This zone defines areas with the highest risk of flooding from rivers (i.e. more than 1% probability or more than 1 in 100) and the coast (i.e. more than 0.5% probability or more than 1 in 200).
Zone B Moderate probability of flooding.	This zone defines areas with a moderate risk of flooding from rivers (i.e. 0.1% to 1% probability or between 1 in 100 and 1 in 1000) and the coast (i.e. 0.1% to 0.5% probability or between 1 in 200 and 1 in 1000).
Zone C Low probability of flooding.	This zone defines areas with a low risk of flooding from rivers and the coast (i.e. less than 0.1% probability or less than 1 in 1000).

2.5 Objectives and Principles of the Planning Guidelines

The 'Planning System and Flood Risk Management' describes good flood risk practice in planning and development management. Planning authorities are directed to have regard to the guidelines in the preparation of Development Plans and Local Area Plans, and for development control purposes.

The objective of the 'Planning System and Flood Risk Management' is to integrate flood risk management into the planning process, thereby assisting in the delivery of sustainable development. For this to be achieved, flood risk must be assessed as early as possible in the planning process. Paragraph 1.6 of the Guidelines states that the core objectives are to:

- "*avoid inappropriate development in areas at risk of flooding;*
- *avoid new developments increasing flood risk elsewhere, including that which may arise from surface run-off;*
- *ensure effective management of residual risks for development permitted in floodplains;*
- *avoid unnecessary restriction of national, regional or local economic and social growth;*
- *improve the understanding of flood risk among relevant stakeholders; and*
- *ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management".*

The guidelines aim to facilitate '*the transparent consideration of flood risk at all levels of the planning process, ensuring a consistency of approach throughout the country.*' SFRAs therefore become a key evidence base in meeting these objectives.

The 'Planning System and Flood Risk Management' works on a number of key principles, including:

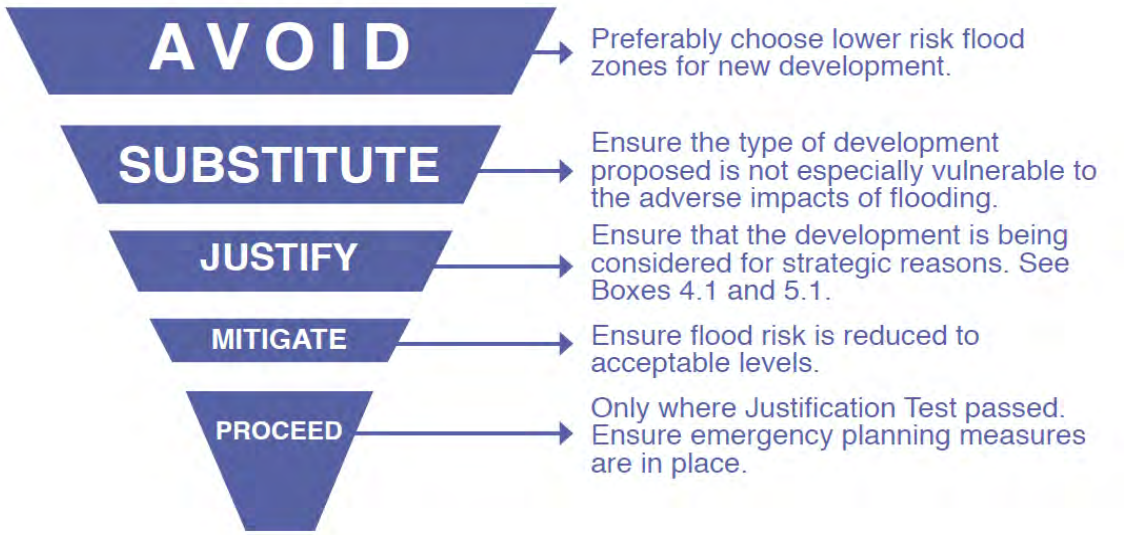
- Adopting a staged and hierarchical approach to the assessment of flood risk;
- Adopting a sequential approach to the management of flood risk, based on the frequency of flooding (identified through Flood Zones) and the vulnerability of the proposed land use.

2.6 The Sequential Approach and Justification Test

Each stage of the FRA process aims to adopt a sequential approach to management of flood risk in the planning process.

Where possible, development in areas identified as being at flood risk should be avoided; this may necessitate de-zoning lands within the plan boundary. If de-zoning is not possible, then rezoning from a higher vulnerability land use, such as residential, to a less vulnerable use, such as open space may be required.

Figure 2-2: Sequential Approach Principles in Flood Risk Management



Source: The Planning System and Flood Risk Management (Figure 3.1)

Where rezoning is not possible, exceptions to the development restrictions are provided for through the application of the Justification Test. Many towns and cities have central areas that are affected by flood risk and have been targeted for growth. To allow the sustainable and compact development of these urban centres, development in areas of flood risk may be considered necessary. For development in such areas to be allowed, the Justification Test must be passed.

The Justification Test has been designed to rigorously asses the appropriateness, or otherwise, of such developments. The test is comprised of two processes; the Plan-making Justification Test, and the Development Management Justification Test. The latter is used at the planning application stage where it is intended to develop land that is at moderate or high risk of flooding for uses or development vulnerable to flooding that would generally be considered inappropriate for that land.

Table 2-3 shows which types of development, based on vulnerability to flood risk, are appropriate land uses for each of the Flood Zones. The aim of the SFRA is to guide development zonings to those which are 'appropriate' and thereby avoid the need to apply the Justification Test.

Table 2-3: Matrix of Vulnerability versus Flood Zone

Vulnerability	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (Including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

Source: Table 3.2 of The Planning System and Flood Risk Management

The application of the Justification Test in the context of specific development sites within the variation settlements is discussed in Section 7.

2.7 Scales and Stages of Flood Risk Assessment

Within the hierarchy of regional, strategic and site-specific flood-risk assessments, a tiered approach ensures that the level of information is appropriate to the scale and nature of the flood-risk issues and the location and type of development proposed, avoiding expensive flood modelling and development of mitigation measures where it is not necessary. The stages and scales of flood risk assessment comprise of:

- **Regional Flood Risk Appraisal (RFRA)** – a broad overview of flood risk issues across a region to influence spatial allocations for growth in housing and employment and to identify

where flood risk management measures may be required at a regional level to support the proposed growth. This should be based on readily derivable information and undertaken to inform the Regional Planning Guidelines.

- **Strategic Flood Risk Assessment (SFRA)** – an assessment of all types of flood risk informing land use planning decisions. This will enable the Planning Authority to allocate appropriate sites for development, whilst identifying opportunities for reducing flood risk. This SFRA will revisit and develop the flood risk identification undertaken in the RFRA, and give consideration to a range of potential sources of flooding. An initial flood risk assessment, based on the identification of Flood Zones, will also be carried out for those areas zoned for development. Where the initial flood risk assessment highlights the potential for a significant level of flood risk, or there is conflict with the proposed vulnerability of development, then a site specific FRA will be recommended, which will necessitate a detailed flood risk assessment.
- **Site Specific Flood Risk Assessment (SSFRA)** – site or project specific flood risk assessment to consider all types of flood risk associated with the site and propose appropriate site management and mitigation measures to reduce flood risk to and from the site to an acceptable level. If the previous tiers of study have been undertaken to appropriate levels of detail, it is highly likely that the SSFRA will require detailed channel and site survey, and hydraulic modelling.

3 Waterford City and County Study Area

3.1 Study Area

The study area is the whole of Waterford City and County, with a focus on a number of key settlements, which are identified in Table 4-4. Of these settlements, Waterford City, Tramore, Aglish, Ballyduff, Tallow, Dungarvan and Ringphuca, Dunmore East and Ballymacarbry have been subject to detailed flood risk assessment through the Suir and the South-Eastern CFRAM studies. Furthermore, Waterford City has been subject to detailed assessment as part of the flood relief scheme design, and masterplanning flood risk assessment for the North Quays SDZ. A review of documents relating to both of these studies formed part of the SFRA for the City.

County Waterford covers an area of 1,839km^2 and includes a range of topographies, soil and rock types, water bodies and a coastal length of 147km. In west Waterford the limestone-floored valley of the Blackwater runs eastwards from the county boundary through Ballyduff and Lismore as far as Cappoquin where it turns abruptly south and cuts its way through several ridges of sandstone rock forming a steep-sided valley by Villierstown, Clashmore and Aglish and flowing into the Blackwater Estuary at Youghal. The River Bride flows north of Tallow and joins the Blackwater at Camphire. The upper Waterford tributaries of the Blackwater flow from the Knockmealdown Mountains which form the northern boundary of west Waterford. The eastern end of the Dungarvan valley contains the small Colligan River which empties into the estuary at Dungarvan and the Finnisk, a tributary of the Blackwater. A number of river valleys occur between Dungarvan and Bunmahon namely the Dalligan River, River Tay, River Mahon and Anne Stream. East Waterford is very low-lying and has a concentration of lakes and wetlands. Sheltered bays along this coastline provide some of the county's most extensive beaches at Passage East, Woodstown and Tramore. The County boundary between Waterford and South Tipperary is formed by the River Suir flowing by Clonmel, Carrick on Suir and Portlaw where it is joined by the River Clodiagh.

County Waterford is covered in the main by the South Eastern River Basin District, including the catchments of the rivers Mahon, Clodiagh, Suir and Waterford Estuary. West Waterford and the Blackwater River are within the South Western River Basin District.

3.2 Planning Policy

3.2.1 Southern Region Regional Spatial & Economic Strategy

The Regional Spatial & Economic Strategy (RSES) for the Southern Region includes a significant focus on sustainability and flood management, encapsulated in Water Resource and Flooding National Policy Objective (NPO) 57, which "*seeks to enhance water quality and resource management by:*

Ensuring flood risk management informs placemaking by avoiding inappropriate development in areas at risk of flooding in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities".

This policy objective is supported by a range of objectives which include implementation of the Flood's Directive and the Planning System and Flood Risk Management as well supporting capital investment in flood relied schemes and measures for managing flooding and coastal erosion.

3.2.2 Waterford County Development Plan 2011-2017 (as extended)

The Waterford County Development Plan was supported by an SFRA which undertook a high level review of available datasets and levels of flood risk. The impact of flood risk within the context of the County Development Plan and decisions regarding future directions of growth was recognised and was incorporated into the policies of the County Development Plan Section 8 (Environment and Heritage Chapter). These policies aimed to ensure that flood risk areas targeted for development will follow the sequential approach and will be planned, designed and constructed to reduce and manage flood risk and be adaptable to changes in climate.

Development Objectives for the settlements of Ballyduff West, Ballymacarbry, Cappoquin, Carrick on Suir, Cheekpoint, Clashmore, Clonmel Environs, Dungarvan Environs, Lismore, Pilltown and Tallow included the protection of the floodplain in those settlements.

The SFRA stated that as more up to date information and spatial data becomes available through Flood Risk Mapping, CFRAMS and the National Coastal Protection Strategy and where lands are

already zoned for housing or other vulnerable development in the flood risk areas identification of flood zones in relevant settlements will be applied through a Stage 2 Strategic Flood Risk Assessment applying the sequential approach and justification test as per the DoEHLG Guidelines (2009).

3.2.3 Waterford City Development Plan 2013-2019 (as extended)

The Waterford City Development Plan was also supported by an SFRA which included a stage 3 assessment of flood risk. The Justification Test was also applied to sites located within Flood Zones A and B. Where the Justification Test was not passed (sites on the periphery of the city), it was found that the majority of the site was within Flood Zone C and local risks could be mitigated through development management and a site specific Flood Risk Assessment.

3.2.4 Dungarvan Town Council Plan 2012-2018 (as extended)

Consideration of flood risk also formed part of the Dungarvan Town Council Plan, including production of a floodmap and environmental objectives as a result of SFRA. The plan did not include a screening of risk to specific development sites but did require development within areas shown to be at risk of flooding to undertake site specific flood risk assessment.

4 Identification of Flood Risk

4.1 Data Collection and Review

This section reviews the data collection and the flood history for the settlements so that any additional information on flooding can be included within this SFRA. It will confirm the extent of extreme flooding (through the Flood Zone mapping) key sources of flood risk.

There are a number of valuable sources of flood data for County Waterford, including major projects such as the CFRAM, and broadscale flood mapping such as the national PFRA study.

The sources of information from the previous iterations of the SFRAs have been reviewed and relevant updates have been made using the CFRAM flood mapping.

Table 4-1: Available flood risk data

Description	Coverage	Robustness	Comments on usefulness
Suir CFRAM Study	Areas for further assessment (AFAs), or settlements falling along modelled lengths, in County Waterford are: • Waterford City (Model 9) • Portlaw (model 7) • Ballymacarbry (model 5D)	Flood Zones and flood extents for current and future scenarios provided by OPW. Depth, velocity and risk to life, and defended areas are also available. Modelling is 'best of breed' and outputs will allow informed decisions on zoning objectives. Design water levels will inform decisions relating to raising land and setting finished floor levels.	Very useful but undertaken at a catchment level. In general, CFRAM provided all information needed to apply the JT for Plan Making under the SFRA. Site specific FRAs will still be required for planning applications, but information on water levels can form the basis of decision in relation to finished floor levels. However, it is important to note that CFRAM outputs should not be relied upon without review and consideration of appropriateness to the site in question.
South Western CFRAM Study	Areas for further assessment (AFAs), or settlements falling along modelled lengths, in County Waterford are: • Aglish • Ballyduff • Tallow		
South Eastern CFRAM Study	Areas for further assessment (AFAs), or settlements falling along modelled lengths, in County Waterford are: • Dungarvan and Ringphuca • Dunmore East • Tramore		
Irish Coastal Protection Study (ICPSS)	Still water tidal extents for 200 year and 1000 year events for the whole coastline.	High, but does not include wave overtopping /breaking so doesn't represent storm damage.	In SFRA, used to define the tidal risk element of Flood Zone A and B, where CFRAM not available, or ICPSS indicates greater risk. For site specific FRA, where direct translation of tide levels inshore is appropriate (i.e. where the town is on the coast, not up an estuary) these levels can be used to set

Description	Coverage	Robustness	Comments on usefulness
			finished floor levels.
County Development Plan Flood Map (2011-2017)	Based largely on the on the PFRA with some adjustment following walkover and local knowledge. Covers nearly all rivers (including non-CFRAM) and included validation so used for development of base Flood Zones with validation for SFRA.	Low to Moderate	Not used as based data has been superseded.
National Indicative Fluvial Mapping (NIFM)	Produced by the OPW, these maps are 'predictive' flood maps for watercourse with a catchment area greater than 5km^2.	Moderate	Used for all watercourses not covered by CFRAM / ICPSS and replaces the County DP mapping discussed above.
OPW Preliminary Flood Risk Assessment (PFRA) flood maps - Fluvial	The PFRA was a national screening exercise that was undertaken by OPW to identify areas at potential risk of flooding. Fluvial, coastal, pluvial and groundwater risks were identified at an indicative scale.	Low	Superseded by the National Indicative Fluvial Mapping
PFRA Maps - Coastal		Moderate	This was based on ICPSS flood extents
PFRA Maps - Pluvial and Groundwater		Low	Not used as withdrawn by OPW. See GSI mapping.
Historical event outlines and point observations and reports	Various, taken from www.floodinfo.ie	Indicative	Used indirectly used to validate flood zones and identify non-fluvial and tidal flooding in the SFRA. Useful background information for site specific FRAs, but note the database is not exhaustive absence of a record does not necessarily mean absence of flood risk.
Arterial Drainage Benefitting land maps	Show land which would (or have) benefitted from a drainage scheme. This is not based on a 'design flood' (i.e. the events do not have a return period), but indicate low-lying, poorly drained land. It is not the same as lands which are protected by a flood relief scheme.	Low	Superseded by the data sources listed above, although may be used to cross check Flood Zones. Limited benefit to site specific FRAs.
Flood relief scheme details, including locations and	Defences in Waterford, Dungarvan, Portlaw and to the east of Tramore have all been included in the CFRAM modelling and	High (outputs from the CFRAM and/or detailed scheme design	Flood Zones are defined without the benefit of defences, but the benefits have been considered when establishing the

Description	Coverage	Robustness	Comments on usefulness
lengths, standard of protection and areas which are protected	defended areas defined.	documents provide this information).	specific risk to a site and considering the appropriateness of land zoning. Will be helpful in informing the site specific FRA, which will need an assessment of residual risks, and possibly breach analysis.
ICPSS Coastal Erosion Maps	National coverage, highlighting areas which area particularly vulnerable to coastal erosion.	Moderate	Erosion risks within settlements are generally low, so has not influenced the SFRA.

Table 4-2: Other Data Available

Description	Coverage	Robustness	Comment on usefulness
Alluvial Soil Maps	Full Study Area	Low	Used in the Regional FRA to provide initial assessment of risks. Not used in SFRA and little or no value to FRA.
Groundwater vulnerability maps	Broadscale, County wide	Moderate	Initial assessment of groundwater vulnerability. Provides a screening tool for use in FRA.
Historic Flood Records including photos, aerial photos and reports.	Broad, spot coverage	Various	Yes indirectly to validate Flood Zones & identify other flood sources. Review of such sources will be required for all site specific FRAs.

4.2 Flood Zone Map Development

As can be seen from Table 4-2, a range of data, including hydraulic modelling and historical reports was used to inform this SFRA.

The OPW CFRAM maps were reviewed as part of the data collection exercise and have been used to inform the land use zonings contained in the Development Plan. Settlements covered with detailed mapping (termed High Priority Watercourses, or HPW) under the Suir, South-West and South-East CFRAM programmes are: Waterford City, Portlaw, Ballymacarbry, Aglish, Ballyduff, Dungarvan and Ringphuca, Dunmore East, Tallow and Tramore.

Medium Priority Watercourse (MPW) mapping also provided flood information for a number of other settlements within the county, and for the watercourse lengths between the urban settlements. Where HPW outputs were not available, MPW was used in preference.

For many of the other watercourses, the OPW's NIFM mapping was used. The least robust dataset used was the Flood Zone mapping from the previous County Development Plan. As detailed above, this was based on the PFRA with some localised changes made as appropriate.

Around the coast and to represent tidal inundation up estuaries, the ICPSS provided flood extents.

It should be noted that, regardless of the origin of the background data, the Flood Zone Maps have been developed as a spatial planning tool to guide WCC in making land zoning and development management decisions and it is recognised that site specific information may contradict the Flood

Zones, either to demonstrate a greater or lesser level of flood risk. However, the data has been deemed appropriate for the planning decisions being made at this stage of the plan making process.

In general, where HPW modelling has been carried out, flood levels and flows are available at selected node points along the watercourse. Once an appropriate level of validation has been undertaken as part of the site specific FRA, these flood levels may be used to form the basis of the development design.

For MPW and NIFM map outputs, water levels are not available, and the mapping provides an indicative extent only. Additional assessment through a Stage 3 FRA may be needed to demonstrate the level of flood risk.

The Flood Zones can also be seen on the Waterford County Council interactive map viewer, where they are overlaid with the zoning objectives and other key datasets for the county.

4.3 Unmapped Fluvial Risk

The Flood Zones have been derived for watercourse with a catchment area greater than 5km^2, which captures the majority of sources of fluvial flood risk in the Waterford settlements. However, there may be cases where a watercourse is been identified, either through mapping or through site visit and local knowledge, but due to the size of the catchment, the Flood Zone has not been delineated. In these cases, it is the responsibility of the applicant to undertake an appropriately detailed FRA and to then apply the sequential approach as the Plan Making Justification Test has not been satisfied in these cases.

4.4 Sources of Flooding

This SFRA has reviewed flood risk from fluvial, pluvial, tidal and groundwater sources. It also considers flooding from drainage systems, reservoirs and canals and other artificial or man-made systems as appropriate.

Flooding events have become more pronounced in Ireland, and County Waterford, in recent years. Low lying parts of Waterford City are prone to both river and tidal flooding and sometimes a combination of both when certain meteorological conditions arise, given its location on tidal estuary of the River Suir. This demonstrates the need to consider all sources of flood risk, alone and in combination, when considering development within the county.

Climate change risks also need to be considered at a strategic and site specific scale. Climate change is discussed in Section 5.8 in relation to incorporation of climate change into the flood risk assessment. A comment on the likely impacts of climate change, on a settlement basis, has been provided in Section 7.3.

4.4.1 Fluvial Flooding

Flooding from rivers and streams is associated with the exceedance of channel capacity during higher flows. The process of flooding from watercourses depends on numerous characteristics associated with the catchment including geographical location and variation in rainfall, steepness of the channel and surrounding floodplain and infiltration and rate of runoff associated with urban and rural catchments. Generally, there are two main types of catchments: large and relatively flat or small and steep, both giving two very different responses during large rainfall events.

In a large, relatively flat catchment, flood levels will rise slowly and natural floodplains may remain flooded for several days or even weeks, acting as the natural regulator of the flow. This is typical of the River Suir. In small, steep catchments local intense rainfall can result in the rapid onset of deep and fast-flowing flooding with little warning. Such “flash” flooding, which may only last a few hours, can cause considerable damage and possible risk to life.

The form of the floodplain, either natural or urbanised, can influence flooding along watercourses. The location of buildings and roads can significantly influence flood depths and velocities by altering flow directions and reducing the volume of storage within the floodplain. Critical structures such as bridge and culverts can also significantly reduce capacity creating pinch points within the floodplain. These structures are also vulnerable to blockage by natural debris within the channel or by fly tipping and waste.

Flood risk to specific settlements is discussed in Section 6 and has been used to inform the zoning objectives for the Development Plan.

4.4.2 Tidal and Coastal Flooding

County Waterford's southern boundary is formed by the Celtic Sea. There are numerous settlements along this coastal margin, including Baile na nGall, Heilbhic, Cheekpoint, Dungarvan, Dunmore East, Passage East, Portlaw and Waterford City.

The coastline of County Waterford is experiencing both erosion and deposition and some flooding through normal coastal processes. Parts of the coast in Waterford are low lying and vulnerable to flooding in the long-term from sea level rise and it is essential that current and future plans and development now do not create significant problems in the future. Continued investment needs to be made in research on long term options for the protection of coastal towns from long term sea level rise and increased storm activity.

A strategic level erosion risk assessment for the coastline has also been completed and predictive erosion maps prepared for the years 2030 and 2050. A review of the erosion risk maps shows that primary erosion risk areas identified included Tramore. In contrast to the assessment of coastal flood risk, the coastal erosion risk assessment along the south coast has indicated that there is generally little risk from erosion in the larger urbanised areas. This is primarily due to the fact that the urbanised coastline is mostly either naturally resilient or protected by man-made defences.

The Government has recently established an Inter-Departmental Group on Coastal Change Management to scope out an approach for the development of a national coordinated and integrated strategy to manage the projected impact of coastal change to our coastal communities, economies, heritage, culture and environment. The Inter-Departmental Group is jointly chaired by the Department of Housing, Planning and Local Government and the OPW and will bring forward options and recommendations for the Government to consider. Should these recommendations be available during the lifetime of the plan they will be given due consideration and assessed for impacts on the SFRA.

4.4.3 Flooding from Flood Defence Overtopping or Breach

Under the OPW's flood relief capital works programme, a number of flood relief schemes are completed, ongoing or planned. These are listed in Table 4-3. Where a scheme is ongoing or planned it is important that new development is cognisant of the works and do not impede or prevent the progression of the measures. There may also be minor works or other projects completed by Waterford County Council that are not listed in the table.

Table 4-3: County Waterford flood relief schemes

Scheme location	Status
Aglish	Ongoing
Ballyduff	Ongoing
Waterford City phase 1	Completed 2011
Waterford City phase 2, 3 and 4	Completed 2016
Dungarvan and Environs	Planned
Portlaw	Completed (non-OPW)
East of Tramore	Completed (non-OPW)

Completed defences have been examined in more detail through the CFRAM Studies, which included an assessment of physical condition, height and the standard of protection provided. The CFRAM also looked at the likelihood of a defence failing, and if considered significant, investigated the consequences through breach modelling.

The Waterford City Flood Alleviation Scheme consists of the containment of floodwaters in the John's River and the River Suir within their respective channels through the urban area of Waterford. The works protect the city from flooding from both rivers for events up to the 0.5% AEP in tidal areas, and up to 1% AEP in non-tidal areas. This has been achieved through the construction of

flood defences, in the form of concrete walls, glass walls, sheet piled walls, embankments, storm water pumps etc[1].

It should be noted that whilst existing development clearly benefits from the construction of defences, it is against sustainability objectives, and the general approach of the OPW, to construct defences with the intension of releasing land for development. It is also not appropriate to consider the benefits of schemes which have not been constructed, and which may only be at pre-feasibility or design stage.

Residual risk is the risk that remains after measures to control flood risk have been carried out. Residual risk can arise from overtopping of flood defences and / or from the breach from structural failure of the defences. Residual

The concept of residual risk is explained in 'The Planning System and Flood Risk Management Guidelines for Planning Authorities and Technical Appendices, 2009' as follows:

"Although flood defences may reduce the risk of flooding, they cannot eliminate it. A flood defence may be overtopped by a flood that is higher than that for which it was designed or be breached and allow flood water to rapidly inundate the area behind the defence. In addition, no guarantee can be given that flood defence will be maintained in perpetuity. As well as the actual risk, which may be reduced as a result of the flood defence, there will remain a residual risk that must be considered in determining the appropriateness of particular land uses and development. For these reasons, flooding will still remain a consideration behind flood defences and the flood zones deliberately ignore the presence of flood defences."

Overtopping of flood defences will occur during flood events greater than the design level of the defences. Overtopping is likely to cause more limited inundation of the floodplain than if defences had not been built, but the impact will depend on the duration, severity and volume of floodwater. However, and more critically, overtopping can destabilise a flood defence, cause erosion and make it more susceptible to breach or fail. Recovery time and drainage of overtopping quantities should also be considered. Overtopping may become more likely in future years due to the impacts of climate change and it is important that any assessment of defences includes an appraisal of climate change risks.

Breach or structural failure of flood defences is hard to predict and is largely related to the structural condition and type of flood defence. 'Hard' flood defences such as solid concrete walls are less likely to breach than 'soft' defence such as earth embankments. Breach will usually result in sudden flooding with little or no warning and presents a significant hazard and danger to life. There is likely to be deeper flooding in the event of a breach than due to overtopping.

The assessment of breach should be proportionate to the likelihood of the defence failing, taking into account the age, maintenance regime, construction type and the presence of any demountable or mechanically operated components.

Whilst it is important that residual risks are recognised and appropriate management measures put in place, it is also important to acknowledge the benefits that a flood relief scheme provides to those living and working behind it. In this regard, although 'The Planning System and Flood Risk Management Guidelines for Planning Authorities and Technical Appendices, 2009' requires flood zones to be undefended, consideration should be given to the benefit provided by flood defences, but only once the Justification Test has been applied and passed.

4.4.4 Pluvial Flooding

Flooding of land from surface water runoff is usually caused by intense rainfall that may only last a few hours. The resulting water follows along natural valley lines, creating flow paths along roads and through and around developments and ponding in low spots, which often coincide with fluvial floodplains. Any areas at risk from fluvial flooding will almost certainly be at risk from surface water flooding.

An overall strategy for the management of pluvial risk is presented, and should be implemented across all development proposals. This, and recommendations for the assessment of surface water risks, are provided in Section 5.4.

[1] Suir CFRAM Study Hydraulics Report, Final, July 2016

As a longer term strategy, it is recommended that surface water management plans be prepared for the larger settlements in County Waterford. These should consider the applicability of different SuDS techniques for managing surface water run-off at key development sites, and also identify where integrated and area based provision of SuDS and green infrastructure are appropriate in order to avoid reliance on individual site by site solutions.

4.4.5 Flooding from Drainage Systems

Flooding from artificial drainage systems occurs when flow entering a system, such as an urban storm water drainage system, exceeds its discharge capacity, it becomes blocked or it cannot discharge due to a high water level in the receiving watercourse.

Flooding in urban areas can also be attributed to sewers. Sewers have a finite capacity which, during certain load conditions, will be exceeded. In addition, design standards vary and changes within the catchment areas draining to the system, in particular planned growth and urban creep, will reduce the level of service provided by the asset. Sewer flooding problems will often be associated with regularly occurring storm events during which sewers and associated infrastructure can become blocked or fail. This problem is exacerbated in areas with under-capacity systems. In the larger events that are less frequent but have a higher consequence, surface water will exceed the sewer system and flow across the surface of the land, often following the same flow paths and ponding in the same areas as overland flow.

Foul sewers and surface water drainage systems are spread extensively across the urban areas with various interconnected systems discharging to treatment works and into local watercourses.

4.4.6 Groundwater Flooding

Groundwater flooding is caused by the emergence of water originating from underground and is particularly common in karst landscapes. This can emerge from either point or diffuse locations. The occurrence of groundwater flooding is usually very local and unlike flooding from rivers and the sea, does not generally pose a significant risk to life due to the slow rate at which the water level rises. However, groundwater flooding can cause significant damage to property, especially in urban areas and pose further risks to the environment and ground stability. Groundwater flooding is not considered to be a significant risk in Waterford; the OPW's PFRA study did not identify any groundwater flood risk locations.

4.5 Climate Change

In addition to the current level of flood risk (either fluvial or coastal), the SFRA has identified a number of settlements which could be at significantly greater risk when future (climate change) scenarios are considered. These settlements are mainly located along the coast, where between a 0.5m (medium range future scenario) and 1m (high end future scenario) rise in sea level should be allowed for, based on current OPW guidance. This appraisal has not included storm damage which occurs currently or may occur in the future; it is based on still sea levels only.

Where land is to be zoned for development, it is important that the long term viability of the area is understood and can be managed. In the main, this will involve moving zoning objectives inland, rather than targeting new development along the areas at high future risk of flooding.

As with the other areas of risk, the CFRAM and IPCSS both provided future flood extents for its AFAs and coastal margins. As sea level rise will have potentially damaging consequences, the impact of this for both the MRFS and HEFS should be understood for coastal settlements.

Where the OPW and WCCC are designing flood relief schemes for an area consideration will be given to the management of climate change risks within the scheme design. However, this may follow an adaptive approach whereby the defence height is based on current design levels but the foundations of the walls and embankments are designed to take additional loading should the defences be raised in the future.

4.6 Settlement Classification

The Flood Zones were overlaid on the settlement boundaries to allow a preliminary review to be made of those towns and villages which are removed from flood risk, or where flood risk can be managed through surface water and drainage system design.

A number of the higher tier settlements have zoning objectives and have been subject to detailed review. All other settlements will be indicated by reference by a settlement boundary but no specific

zoning objectives (see Table 4-4). A number of criteria are specified with the Development Plan to determine the appropriateness of a site for a specific development, and one of these is the Flood Zone in which the site is located; the sequential approach shall be applied within those settlements to avoid development in areas of flood risk. In these cases, the Plan Making Justification Test has not been applied so it is not possible for the Development Management Justification test to be passed and all new development should be located in Flood Zone C, with the exception of minor development (Section 5.28 of the Planning Guidelines).

Of the settlements that have zoning objectives and showed some level of risk of flooding (from fluvial, groundwater or coastal sources) a more detailed assessment of the quality and coverage of the flood data available was made, including overlaying the current zoning objectives and considering the required level of intensification of development that will be required to meet the Core Strategy. A comment on all sources of flood risk has been provided in the following tables, although it is the fluvial and tidal risks which are the main focus of the Flood Zones and zoning objective review process.

Table 4-4: Settlement hierarchy and approach within SFRA

Class	Category	Place	Level of assessment with this SFRA
1	City-Metropolitan Area	Waterford City	Zoning objectives have been reviewed in light of the Flood Zone mapping.
2	Key Town	Dungarvan, including Ballinroad Clonmel Environs	Zoning objectives have been reviewed in light of the Flood Zone mapping.
3A	Large Urban Town	Tramore	Zoning objectives have been reviewed in light of the Flood Zone mapping.
3B	Urban Town	Dunmore East, Portlaw, Lismore	
4A	Rural Towns	Cappoquin, Kilmacthomas, Tallow, Ardmore, Gaeltacht na nDéise (inc Sean Phobal), Passage East/Crooke, Stradbally,	A screening of risk has been carried out within the settlement boundary. Plan Making Justification Test has not been applied or passed so the sequential approach shall be followed and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific FRA.
4B	Rural Villages	Aglish, Ballyduff Upper, Ballymacarbry, Bonmahon/Knockmahon, Cheekpoint, Clashmore, Clonea Power, Dunhill, Kill, Kilmeaden/Ballyduff, Lemybrien/Kilrossanty, Rathgormuck, Touraneena, Villierstown.	
5	Rural Nodes	Annestown, Ballylaneen, Ballymacaw, Butlerstown, Faithlegg, Fenor, Grange, Kilbrien, Knockanore, Mellary, Modeligo, Piltown, Whitechurch.	A screening of risk has been carried out with the settlement boundary. Plan Making Justification Test has not been applied or passed so the sequential approach shall be followed and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific

Class	Category	Place	Level of assessment with this SFRA
			FRA.

5 Approach to Flood Management

5.1 The Strategic Approach

A strategic approach to the management of flood risk is important in County Waterford as the risks are varied and disparate, with scales of risk and scales of existing and proposed development varying greatly across the county.

Following the Planning Guidelines, development should always be located in areas of lowest flood risk first, and only when it has been established that there are no suitable alternative options should development (of the lowest vulnerability) proceed. Consideration may then be given to factors which moderate risks, such as defences, and finally consideration of suitable flood risk mitigation and site management measures is necessary.

It is important to note that whilst it may be technically feasible to mitigate or manage flood risk at site level, strategically it may not be a sustainable approach.

A summary of flood risks associated with each of the zoning objectives has been provided in Table 5-1, below. It should be noted that this table is intended as a guide to be used in the Plan Making stage, and should be read in conjunction with the detailed assessment of risks for each settlement. The Flood Risk Commentary indicates whether a certain land zoning, in Flood Zone A or B, will need to have the Plan Making Justification Test (JT) applied and passed.

When carrying out a site specific FRA, or when planning applications are being considered, it is important to remember that not all uses will be appropriate on flood risk grounds, hence the need to work through the Justification Test for Development Management on a site by site basis and with reference to Section 6. For example, the Town / Village Centre zoning objective is "to include for an integrated mix of residential, commercial, community and social uses" which have varying vulnerabilities and would not be equally permissible within Flood Zone A and B.

Table 5-1: Zoning objective vulnerability

USE	Zoning	Indicative Primary Vulnerability	Flood Risk Commentary
Residential	New Residential	Highly Vulnerable	JT required for within Flood Zone A and B.
	Residential		
	Residential: Strategic Reserve		
Urban/ Town	Town Core	Less / highly vulnerable	JT required for within Flood Zone A and B, and for highly vulnerable development in Flood Zone B.
	General Business		
	Regeneration		
Community Services and Infrastructure	Community Infrastructure	Less / highly vulnerable	JT required for within Flood Zone A and B, and for highly vulnerable development in Flood Zone B.
	Open Space and Recreation	Water compatible	JT not needed for water compatible uses, but consideration to be given to flood risks and sequential use of land.
	Transport and Utilities infrastructure	Less / highly vulnerable	JT required for within Flood Zone A and B, and for highly vulnerable development in Flood Zone B.
Rural	High Amenity	Water	JT not needed for water

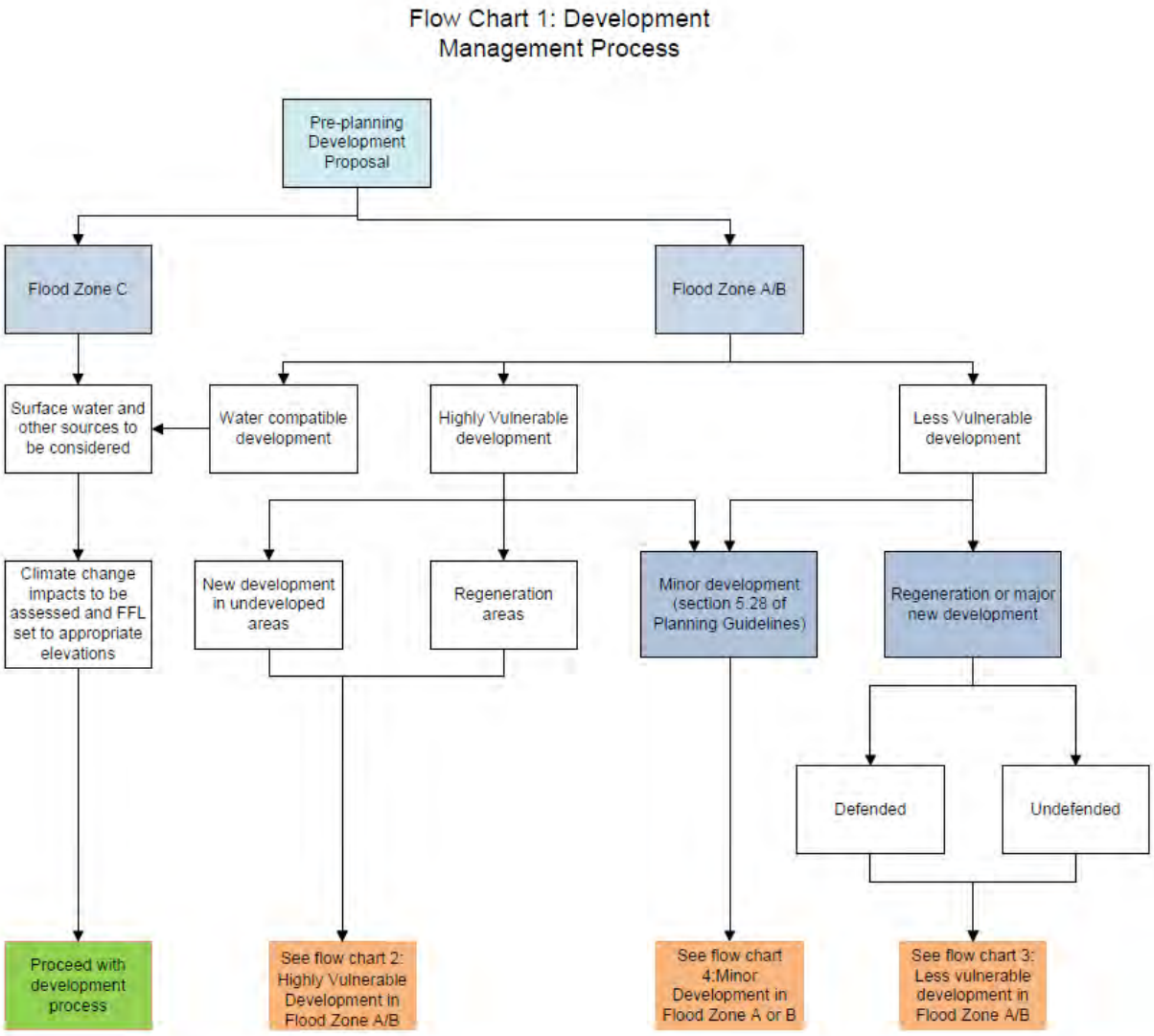
USE	Zoning	Indicative Primary Vulnerability	Flood Risk Commentary
	Rural Village	compatible	compatible uses, but consideration to be given to flood risks and sequential use of land.
Employment	Special Industry	Less / highly vulnerable	JT required for within Flood Zone A and B, and for highly vulnerable development in Flood Zone B.
	Light Industry/ High Technology/ Manufacturing Campus Development	Less vulnerable	Appropriate use in Flood Zone B, but JT will be needed in Flood Zone A.
	Tourism	Less vulnerable	Appropriate use in Flood Zone B, but JT will be needed in Flood Zone A.
White lands	White lands	Water compatible / less / highly vulnerable	JT has not been applied and sequential approach to avoid development in areas at risk of flooding.

5.2 Development Scenarios and Flow Charts

To guide applicants and planning officials through the process of planning for and mitigating flood risk at a site level, the key features of a range of development scenarios have been identified (relating the flood zone, development vulnerability and presence or absence of defences). For each scenario, a number of considerations relating to the suitability of the development are summarised below. The scenarios identified are:

- Development wholly within Flood Zone C and Drainage Impact Assessment
- Minor developments in Flood Zone A or B
- Highly vulnerable development in Flood Zone A or B
- Less vulnerable development in Flood Zone A or B
- Water compatible uses in Flood Zone A or B
- Climate change

Each of these scenarios is also supported by a flow chart which summarises the decision-making process with regard to flood risk and different vulnerabilities of development. The flow charts are referenced through the following pages and are located in Appendix A, with Flow Chart 1 reproduced below.



It should be noted that this section of the SFRA applies only to land that has passed the Justification Test for Development Plans, and therefore Part 1 of the Justification Test for Development Management. Where this is not the case then further guidance, provided on a site by site basis, will be required from Waterford County Council and in accordance with Section 5.27 of the Planning Guidelines.

5.3 Requirements for a Flood Risk Assessment

Assessment of flood risk is required in support of any planning application. The level of detail will vary depending on the risks identified and the proposed land use. As a minimum, all proposed development, including that in Flood Zone C, must consider the impact of surface water flood risks on drainage design. In addition, flood risk from sources other than fluvial and tidal should be reviewed. The assessment may be a qualitative appraisal of risks, including drainage design. Alternatively, the findings of the CFRAM, or other detailed study, may be drawn upon to inform finished floor levels. In other circumstances a detailed modelling study and flood risk assessment may need to be undertaken. Further details of each of these scenarios, including considerations for the flood risk assessment are provided in the following sections.

For sites within Flood Zone A or B, a site specific "Stage 2 - Initial FRA" will be required and may need to be developed into a "Stage 3 - Detailed FRA". The extents of Flood Zone A and B are delineated through this SFRA. However, future studies may refine the extents (either to reduce or enlarge them) so a comprehensive review of available data should be undertaken once a SSFRA has been triggered.

Within the SSFRA the impacts of climate change and residual risk (including culvert/structure blockage) and more extreme scenarios (such as the 0.1% AEP fluvial and tidal event) should be considered and modelled or remodelled where necessary. Further information on the required content of the SSFRA is provided in the Planning System and Flood Risk Management Guidelines.

Any proposal that is considered acceptable in principle shall demonstrate the use of the sequential approach in terms of the site layout and design and, in satisfying the Justification Test (where required) the proposal will demonstrate that appropriate mitigation and management measures are put in place.

Although there are many locations where development may, in the future, benefit from a flood relief scheme, the assessment must progress on the basis of the current level of protection and any risks to the development itself or third party land must be managed as part of the development design.

5.4 Drainage impact assessment

All proposed development, including that in Flood Zone C, must consider the impact of surface water flood risks on drainage design. All development must pass through this stage before completing the planning and development process and should be accompanied by an appropriately detailed flood risk assessment, or drainage impact assessment, as appropriate.

Areas vulnerable to ponding are indicated on the OPW's PFRA mapping. However, this mapping is not exhaustive and more general consideration should be given to surface water management for development in low-lying areas which may act as natural ponds for collection of runoff.

The drainage design should ensure no increase in flood risk to the site, or the downstream catchment. Considerable detail on the process and design of SUDS is provided in the Greater Dublin Strategic Drainage Study (which in the absence of other guidance may be applied in County Waterford).

Where surface water attenuation forms part of the system, consideration should be given to the level of the outfall to the watercourse or sea. If this outfall will be below flood levels, an assessment of the additional storage required for the period when the outfall is submerged and free discharge is not possible, will need to be made. It is recommended that this is done on the basis of joint probability, with the worst case selected. For example, in a tidal situation this might be the 10% AEP tide with the 1% AEP rain storm and the 0.5% AEP tide with the 10% AEP rain event. Similar combinations of events should be tested for the fluvial situation.

For larger sites (i.e. multiple dwellings or commercial units) master planning should ensure that existing flow routes are maintained through the use of green infrastructure. Where possible, and particularly in areas of new development, floor levels should at a minimum be 300mm above adjacent roads and hard standing areas to reduce the consequences of any localised flooding. Where this is not possible, an alternative design appropriate to the location may be prepared.

5.5 Development in Flood Zone C

Where a site is within Flood Zone C, but adjoining or in close proximity to Flood Zone A or B, there could be a risk of flooding associated with factors such as future scenarios (climate change) or in the event of failure of a defence, blocking of a bridge or culvert. Risk from sources other than fluvial and coastal must also be addressed for all development in Flood Zone C. As a minimum in such a scenario, a flood risk assessment should be undertaken which will screen out possible indirect sources of flood risk. Where they cannot be screened out the FRA should present mitigation measures. The most likely mitigation measure will involve setting finished floor levels to a height that is above the 1% AEP fluvial or 0.5% AEP tidal flood level, with an allowance for climate change and freeboard, or to ensure a step up from road level to prevent surface water ingress. Design elements such as channel maintenance or trash screens may also be required. Evacuation routes in the event of inundation of surrounding land should also be detailed.

The impacts of climate change should be considered for all proposed developments. This is particularly important for development near areas at risk of tidal flooding. A development which is currently in Flood Zone C may be shown to be at risk when 0.5m is added to the extreme (0.5% AEP) tide. Details of the approach to incorporating climate change impacts into the assessment and design are provided in Section 5.8.

5.6 Development in Flood Zone A and B

Within Flood Zone A and B, potential development has been classed as either minor (typically extensions and changes of use) or major new development. When considering major development, whether the site is in Flood Zone A or B becomes important and will guide the approach to be taken.

5.6.1 Minor Developments

Section 5.28 of the Planning Guidelines on Flood Risk Management identifies certain types of development as being 'minor works' and therefore exempt from the Justification Test. Such development relates to works associated with existing developments, such as extensions, renovations and rebuilding of the existing development, small scale infill and changes of use. The assessment process for this form of development is provided in Flow Chart 4.

As the proposal relates to existing buildings, the 'Sequential Approach' and 'Justification Test' cannot apply, but an assessment of the risks of flooding should accompany such applications. This must demonstrate that the development would not increase flood risks by introducing significant numbers of additional people into the flood plain and/or putting additional pressure on emergency services or existing flood management infrastructure. The development must not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities. Where possible, the design of built elements in these applications should demonstrate principles of flood resilient design (See 'The Planning System and Flood Risk Management Guidelines for Planning Authorities Technical Appendices, 2009', Section 4 - Designing for Residual Flood Risk).

In many situations, the approach to deal with flooding would involve raising the ground floor levels above the level of extreme river levels. This is likely to cause problems for infill development sites and existing buildings. It is therefore recognised that some flexibility could be allowed, in limited circumstances and on a site by site basis, and depending on the level of risk presented. In these cases, the detailed design of the development should reflect the vulnerability of the site in terms of internal layout, materials, fixtures and fittings and internal layout. For high risk areas, less vulnerable uses are encouraged at ground floor levels. A site specific FRA will inform appropriate uses and detailed design and layout.

It should be noted that for residential buildings within Flood Zone A or B, bedroom accommodation is more appropriate at upper floor levels.

For commercial operations, business continuity must be considered, and steps taken to ensure operability during and recovery after a flood event for both residential and commercial developments. Emergency access must be considered as in many cases flood resilience will not be easily achieved in the existing built environment.

5.6.2 Highly vulnerable development

Highly vulnerable development in Flood Zones A or B needs to have passed both the Plan Making Justification Test and the Justification Test for Development Management. Development which is highly vulnerable to flooding, as defined in The Planning System and Flood Risk Management, includes (but is not limited to) dwelling houses, hospitals, emergency services and caravan parks. Such development has been divided into new builds and existing developed areas. The assessment process for this form of development is provided in Flow Chart 2.

5.6.2.1 New development

It is not appropriate for new, highly vulnerable development to be located on greenfield land in Flood Zones A or B, particularly outside the core of a settlement and where there are no flood defences. Such proposals do not pass the Justification Test. Instead, a less vulnerable use should be considered.

In some cases, land use objectives which include for a highly vulnerable use have been justified in the Development Plan. In the main, this would be town centre zonings, which allow for a mix of residential, commercial and other uses. In such cases, a sequential approach to land use within the site must be taken. This is illustrated in Flow Chart 2, and must consider the presence or absence of defences, land raising and provision of compensatory storage, safe access and egress in a flood and the wider development area.

5.6.2.2 Existing developed areas

In cases where development has been justified through the Plan Making process, the outline requirements for a flood risk assessment and flood management measures have been detailed in the following sections. Of prime importance are the requirement to manage risk to the development site and not to increase flood risk elsewhere. This should give due consideration to safe evacuation routes and access for emergency services during a flood event.

5.6.3 Less vulnerable development

This section applies to less vulnerable development in Flood Zone A which has passed the Justification test for development plans, and less vulnerable development in Flood Zone B, where this form of development is appropriate, and the Justification Test is not required.

Less vulnerable development includes retail, leisure and warehousing and buildings used for agriculture and forestry. This category includes less vulnerable development in all forms, including refurbishment or infill development, and new development both in defended and undefended situations. The assessment process for this form of development is provided in Flow Chart 3.

The design of less vulnerable development should generally begin with 1% AEP fluvial or 0.5% tidal events as standard, with climate change and a suitable freeboard included in the setting of finished floor levels.

The presence or absence of flood defences informs the level of flood mitigation recommended for less vulnerable developments in areas at risk of flooding. In contrast with highly vulnerable development, there is greater scope for the developer of less vulnerable uses to accept flood risks and build to a lower standard of protection, which is still high enough to manage risks for the development in question. However, any deviation from the design standard of 1%/0.5% AEP, plus climate change, plus freeboard, needs to be fully justified within the FRA.

5.6.4 Water compatible uses

Water compatible uses can include the non-built environment, such as open space, agriculture and green corridors. These uses do not require a flood risk assessment and are appropriate for Flood Zone A and B. However, there are numerous other uses which are classified as water compatible, but which involve some kind of built development, such as lifeguard stations, fish processing plants and other activities requiring a waterside location. The Justification Tests are not required for such development, but an appropriately detailed flood risk assessment is required. This should consider mitigation measures such as development layout and finished floor levels, access, egress and emergency plans. Climate change and other residual risks should also be considered within the SSFRA.

5.7 Checklist for Applications for Development in Areas at Risk of Flooding

This section applies to both highly and less vulnerable development in Flood Zone A and highly vulnerable development in Flood Zone B that satisfy the following:

- Meet the definition of Minor Development; or
- Pass the Justification Test for Development Plans and Justification Test for Development Management to the satisfaction of the Planning Authority.

The following checklist is required for all development proposals:

- The SSFRA be carried out by an appropriately qualified Engineer with relevant FRA experience (as deemed acceptable by the Planning Authority), in accordance the Waterford County SFRA and the Flood Risk Guidelines.
- Demonstration that the specific objectives or requirements for managing flood risk set out in this SFRA have been complied with, including an assessment of residual risks.
- Preparation of access, egress and emergency plans which are appropriate to the vulnerability of the development and its occupiers, the intensity of use and the level of flood risk.
- An assessment of the potential impacts of climate change and the adaptive capacity of the development.
- Compliance with C753 CIRIA SUDS guide, GDSDS and inclusion of SuDS.

5.8 Climate Change

Ireland's climate is changing and analysis of the potential impacts of future climate change is essential for understanding and planning. Climate change should be considered when assessing flood risk and in particular residual flood risk. Areas of residual risk are highly sensitive to climate change impacts as an increase in flood levels will increase the likelihood of defence failure. As laid out in the Climate Adaptation Strategy, new development should include consideration of climate change impacts on fluvial, pluvial and tidal source of flooding.

The Planning Guidelines recommend that a precautionary approach to climate change is adopted due to the level of uncertainty involved in the potential effects. Specific advice on the expected impacts of climate change and the allowances to be provided for future flood risk management in Ireland is given in the OPW draft guidance[2]. However, this guidance is over 10 years old now and climate science, particularly in relation to sea level rise, has developed rapidly. There are many coastal related climate change impacts, these include:

- continued sea level rise;
- potentially more severe Atlantic storms, which could generate more significant storm surges and extreme waves;
- increased water depths lead to larger waves reaching the coast.

The OPW guidance recommended two climate change scenarios are considered. These are the Mid-Range Future Scenario (MRFS) and the High-End Future Scenario (HEFS). The allowances should be applied to the 1% AEP fluvial or 0.5% AEP tidal levels. Where a development is critical or extremely vulnerable (see Table 5-2) the impact of climate change on 0.1% AEP flows should also be applied, and greater climate change allowances tested for resilience purposes.

These climate change allowances are particularly important at the development management stage of planning and will ensure that proposed development is designed and constructed according to current local and national Government advice.

Table 5-2: Climate change allowances by vulnerability and flood source

Development vulnerability	Fluvial climate change allowance (increase in flows)	Tidal climate change allowance (increase in sea level)	Storm water / surface water
Less vulnerable	20%	0.5m (MRFS)	20% increase in rainfall
Highly vulnerable	20%	0.5m (MRFS)	
Critical or extremely vulnerable (e.g. hospitals, major sub-stations, blue light services)	30%	1.0m (HEFS)	
Note: there will be no discounting of climate change allowances for shorter lifespan developments.			

Further work on the impacts of climate change on flood levels was undertaken as part of the various CFRAM Studies and the ICPSS. The studies provided flood extents for both fluvial and coastal risk, which are available on www.floodinfo.ie.

Assessment of climate change impacts can be carried out in a number of ways. For watercourses that fall within the CFRAM study areas, flood extents and water levels for the MRFS and HEFS have been developed. For other fluvial watercourses a conservative approach would be to take the 0.1% AEP event levels and extent as representing the 1% AEP event plus climate change. Where access to the hydraulic river model is readily available a run with climate change could be carried out, or hand calculations undertaken to determine the likely impact of additional flows on river levels. In a coastal or tidal scenario, a 0.5 or 1m increase to the 0.5% AEP sea level can be assessed based on topographic levels.

2 OPW Assessment of Potential Future Scenarios, Flood Risk Management Draft Guidance, 2009

5.9 Flood Mitigation Measures at Site Design

For any development proposal in an area at moderate or high risk of flooding that is considered acceptable in principle (i.e. has passed the Plan Making Justification Test), the site specific FRA must demonstrate that appropriate mitigation measures can be put in place and that residual risks can be managed to acceptable levels. This may include the use of flood-resistant construction measures that are aimed at preventing water from entering a building and that mitigate the damage floodwater causes to buildings. Alternatively, designs for flood resilient construction may be adopted where it can be demonstrated that entry of floodwater into buildings is preferable to limit damage caused by floodwater and allow relatively quick recovery.

Various mitigation measures are outlined below and further detail on flood resilience and flood resistance are included in the Technical Appendices of the Planning Guidelines, The Planning System and Flood Risk Management[3].

It should be emphasised that measures such as those highlighted below should only be considered once it has been deemed 'appropriate', to allow development in a given location or the Justification Test for Development Plans has been passed. The Planning Guidelines do not advocate an approach of engineering solutions in order to justify the development which would otherwise be inappropriate.

5.9.1 Site Layout and Design

To address flood risk in the design of new development, a risk-based approach should be adopted to locate more vulnerable land use to higher ground while water compatible development i.e. car parking (with appropriate flood management plan) and recreational space can be located in higher flood risk areas.

The site layout should identify and protect land required for current and future flood risk management. Waterside areas or areas along known flow routes can be used for recreation, amenity and environmental purposes to allow preservation of flow routes and flood storage, while at the same time providing valuable social and environmental benefits.

At an individual building level, assigning a water compatible use, such as open public realm, or less vulnerable use to the ground floor level, along with suitable flood resilient construction, is an effective way of raising vulnerable living space above design flood levels. It can however have an impact on the streetscape. The provision of safe access and egress is a critical consideration in allocating ground floor uses.

5.9.2 Ground levels, floor levels and building use

Modifying ground levels to raise land above the design flood level is a very effective way of reducing flood risk to the site. However, in most areas of fluvial flood risk, conveyance or flood storage would be reduced locally and could increase flood risk off site. There are a number of criteria which must all be met before this is considered a valid approach:

- Development at the site must have been justified through this SFRA based on the existing (unmodified) ground levels.
- The FRA should establish the function provided by the floodplain. Where conveyance is a prime function then a hydraulic model will be required to show the impact of its alteration.
- The land being given over to storage must be land which does not flood in the 1% AEP fluvial event (i.e. Flood Zone B or C).
- Compensatory storage should be provided on a level for level basis to balance the total area that will be lost through infilling where the floodplain provides static storage.
- The provision of the compensatory storage should be in close proximity to the area that storage is being lost from (i.e. within the same flood cell).
- The land proposed to provide the compensatory storage area must be within the ownership / control of the developer.
- The compensatory storage area should be constructed before land is raised to facilitate development.

3 The Planning System and Flood Risk Management Guidelines for Planning Authorities, Technical Appendices, November 2009

- Compensatory storage is generally not required for loss of floodplain in a tidal scenario, or in locations behind defences.

In some sites it is possible that ground levels can be re-landscaped to provide a sufficiently large development footprint. However, it is likely that in other potential development locations there is insufficient land available to fully compensate for the loss of floodplain. In such cases it will be necessary to reconsider the layout or reduce the scale of development or propose an alternative and less vulnerable type of development. In other cases, it is possible that the lack of availability of suitable areas of compensatory storage mean the target site cannot be developed and should remain open space.

Raising finished floor levels within a development is an effective way of avoiding damage to the interior of buildings (i.e. furniture and fittings) in times of flood. Finished floor levels should be assessed in relation to the specific development, but the minimum levels set out in Table 5-3 should apply. It should be noted that in certain locations it may be appropriate to adopt a more precautionary approach to setting finished floor levels, for example where residual risks associated with bridge blockage occur or the 0.1% AEP event is more extreme, and this should be specifically assessed in the SSFRA. It is also noted that typically finished floor levels should be set a minimum of 300mm above surrounding ground levels to prevent ingress of surface water.

Table 5-3: Recommended minimum finished floor levels

Scenario	Finished floor level to be based on
Fluvial, undefended	1% AEP flood + climate change (as Table 5-2) + 300mm freeboard
Tidal, undefended	0.5% AEP flood + climate change (as Table 5-2) + 300mm freeboard.
Fluvial, defended	1% AEP flood + 300mm freeboard. Climate change does not need to be included, provided it is included in the defence height or adaption plan for the scheme.
Tidal, defended	0.5% AEP flood + 300mm freeboard. Climate change does not need to be included, provided it is included in the defence height or adaption plan for the scheme.

5.9.3 Raised Defences

Construction of raised defences (i.e. flood walls and embankments) has traditionally been the response to flood risk. However, this is not a preferred option on an ad-hoc basis and where the defences to protect the development are not part of a strategically led flood relief scheme. Where a defence scheme is proposed as the means of providing flood defence, the impact of the scheme on flood risk up and downstream must be assessed and appropriate compensatory storage must be provided.

A site is considered to be defended if the standard of protection is 1% AEP (fluvial) or 0.5% AEP (tidal), within which a freeboard of at least 300mm is included. The FFL of the proposed development needs to include for the impacts of climate change and other residual risks, including overtopping in the 0.1% event, unless this has also been incorporated into the defence design. This may be assessed through breach analysis, overtopping analysis or projection of water levels across the floodplain.

5.9.4 Emergency Flood Response Plans

In some instances, and only when all parts both the Plan Making and Development Management Justification Tests have been passed, it may be necessary for an emergency flood response plan to be prepared to support other flood management measures within the context of a less vulnerable or water compatible development. An emergency response plan may be required to trigger the operation of demountable flood defences to a less vulnerable development, evacuation of a car park or closure of a business or retail premises.

The emergency plan will need to detail triggers for activation, including receipt of a timely flood warning, a staged response and to set out the management and operational roles and responsibilities. The plan will also need to set out arrangements for access and egress, both for pedestrians, vehicles and emergency services. The details of the plan should be based on an

appropriately detailed assessment of flood risk, including speed of onset of flooding, depths and duration of inundation.

However, just because it is possible to prepare and emergency plan does not mean this is advisable or appropriate for the nature and vulnerability of development and WCCC will not accept an emergency response plan as part of a residential development.

5.10 'Green Corridor'

It is recommended that, where possible, and particularly where there is greenfield land adjacent to the river, a 'green corridor', is retained on all rivers and streams. This will have a number of benefits, including:

- Retention of all, or some, of the natural floodplain;
- Potential opportunities for amenity, including riverside walks and public open spaces;
- Maintenance of the connectivity between the river and its floodplain, encouraging the development of a full range of habitats;
- Natural attenuation of flows will help ensure no increase in flood risk downstream;
- Allows access to the river for maintenance works;
- Retention of clearly demarcated areas where development is not appropriate on flood risk grounds, and in accordance with the Planning System and Flood Risk Management.

The width of this corridor should be determined by the available land, and topographically constraints, such as raised land and flood defences, but would ideally span the fully width of the floodplain (i.e. all of Flood Zone A).

6 Application of the Justification Test

Having reviewed the level of flood risk within the County and determined appropriate measures for assessing and managing risks to high and low vulnerability development in Flood Zones A, B and C, a more detailed assessment of sites and areas was carried out. The aim of this assessment was to apply the Plan Making Justification Test, taking into account circular PL02/2014 in relation to existing development. The tables in the following sections detail the assessment of risk in relation to all zoned land. The recommendations and observations have been adopted by Waterford City and County Council and used to inform the settlement zoning objectives which are detailed in the County Development Plan.

6.1 Risk to existing, highly vulnerable, development

Circular PL02/2014 states that "*In some instances, particularly in older parts of cities and towns, an existing land use may be categorised as a "highly vulnerable development" such as housing, be zoned for residential purposes and also be located in flood zone A/B. Additional development such as small scale infill housing, extension or changes of use that could increase the risk or number of people in the flood-prone area can be expected in such a zone into the future. In these instances, where the residential/vulnerable use zoning has been considered as part of development plan preparation, including uses of the Justification Test as appropriate, and it is considered that the existing use zoning is still appropriate, the development plan must specify the nature and design of structural or non-structural flood risk management measures prior to future development in such areas in order to ensure that flood hazard and risk to the area and to other adjoining locations will not be increased or, if practicable, will be reduced".*

6.1.1 Settlements with Zoning Objectives

There are a number of such areas in the County identified on the Flood Zone maps, including existing housing and established development in Waterford City and Dungarvan. It is considered that it would be unrealistic to down zone these lands as they are fully developed and constitute core areas of the settlements.

In applying the Justification Test Part 3, consideration has been given to structural and non-structural measures which may be required prior to further development taking place. In most locations, future opportunities for development are likely to be limited to small extensions, infill houses or small commercial units and changes of use. As such, in most areas flood risk can be addressed through non-structural responses, such as requiring a site specific flood risk assessment which will identify appropriate mitigation measures such as retaining flow paths, flood resilient construction and emergency planning.

6.1.2 Settlements without Zoning Objectives

There are a number of such areas in the County identified on the Flood Zone maps, including existing housing and established development in settlements such as Ballinroad and Clonea Power, where existing residential development is within Flood Zone A and B. Several other settlements also show predicted flood risk to harbour or coastal areas. These settlements do not have specific zoning objectives and have not been subject to the Justification Test, but with careful planning the sequential approach can be applied.

In Aglish and Ballyduff Upper, flood risk is greater and non-structural (planning based) responses to major new development are not appropriate to the scale of risks. In these locations, structural measures, generally in the form of flood defences, will be required prior to future development occurring within Flood Zone A and B. Further detail on the specifics of the flood management measures in these locations are available in the various CFRAM Study reports.

The following sections provide more detail on flood risk to settlements within County Waterford and gives details of the outcome of the Justification Test where this is required.

7 Settlement Based Flood Risk Assessment

Within Waterford the various settlements have differing levels of flood risk and a screening exercise has been carried out to ensure an appropriate level of assessment is provided in each settlement.

7.1 Settlements in Flood Zone C

An initial screening of flood risk was undertaken to identify which settlements were located wholly within Flood Zone C. In the settlements listed below no fluvial or tidal flood risk was identified through the Flood Zone mapping, and development proposals should proceed following the approach laid out in Sections 5.4 and 5.5 to ensure all other sources of flood risk, including surface water, groundwater and unmapped drains, have been appropriately assessed and, where required, mitigated.

It should be noted that of the settlements listed below, only Lismore has land use zoning objectives and the others have a settlement boundary in place of land use zoning.

- Annestown
- Ballinroad
- Ballyduff
- Ballylaneen
- Ballymacaw
- Bawnfune
- Buttlerstown
- Crooke
- Faithleg
- Grange
- Kill
- Kilbrien
- Kilrossanty
- Knockanore
- Lismore
- Melleray
- Modeligo
- Piltown
- Rathgormack
- Stradbally
- Tooraneena
- Villerstown
- Whitechurch

7.2 Settlements in Flood Zone A and B

The sites below were identified as lying partly within Flood Zones A, B and C, and have zoning objectives detailed within the Development Plan. The following sections provide further detail of the risks within each of the listed settlements, including consideration of the need for the Plan Making and Development Management Justification Tests. It should be noted that in all cases, part of the settlement is also within Flood Zone C and for these areas, development proposals should proceed following the approach laid out in Sections 5.4 and 5.5 to ensure all other sources of flood risk, including surface water, groundwater and unmapped drains, have been appropriately assessed and, where required, mitigated.

- Clonmel Environs
- Dungarvan (inc Ballinroad)
- Dunmore East
- Gaeltacht na nDéise
- Portlaw
- Tramore
- Waterford

7.2.1 Waterford City and Environs

Waterford City benefits from existing defences on John's River and the right bank of the River Suir. The defences were recently completed and provide protection against the 0.5% AEP event, with a 500mm freeboard. A climate change allowance has not been built into the freeboard level. The 0.1% AEP event is also contained within the design crest height by virtue of the freeboard allowed, but for the formal standard of protection is the 0.5% AEP event. This means lands behind the defences remain in Flood Zone A.

Behind the defences is much of the town centre, mixed use zonings and a number of opportunity sites and areas with the potential for new or infill development. Although defended, residual risks to these developments need to be assessed, including defence overtopping and climate change impacts.

The North Quays SDZ has been subject to a recent SFRA, which proposed tidal risk be managed through raising FFL above 4.42m OD[4].

4 Waterford North Quays Strategic Development Zone - Strategic Flood Risk Assessment, February 2018

The Justification Test is required for all opportunity sites and areas for potential development, whether located behind defences or not. This has been divided into five key areas, plus existing residential, and the Justification Test is provided below.

Climate change impacts have the potential to be high as Waterford is at risk from sea level rise. Although there is a freeboard of 500mm, this should not be confused with a climate chance allowance. A climate change adaptation strategy is recommended for the city, which should be undertaken for the whole of the scheme rather than on a site by site basis. Climate change in the North Quays SDZ is to be addressed through FFL.

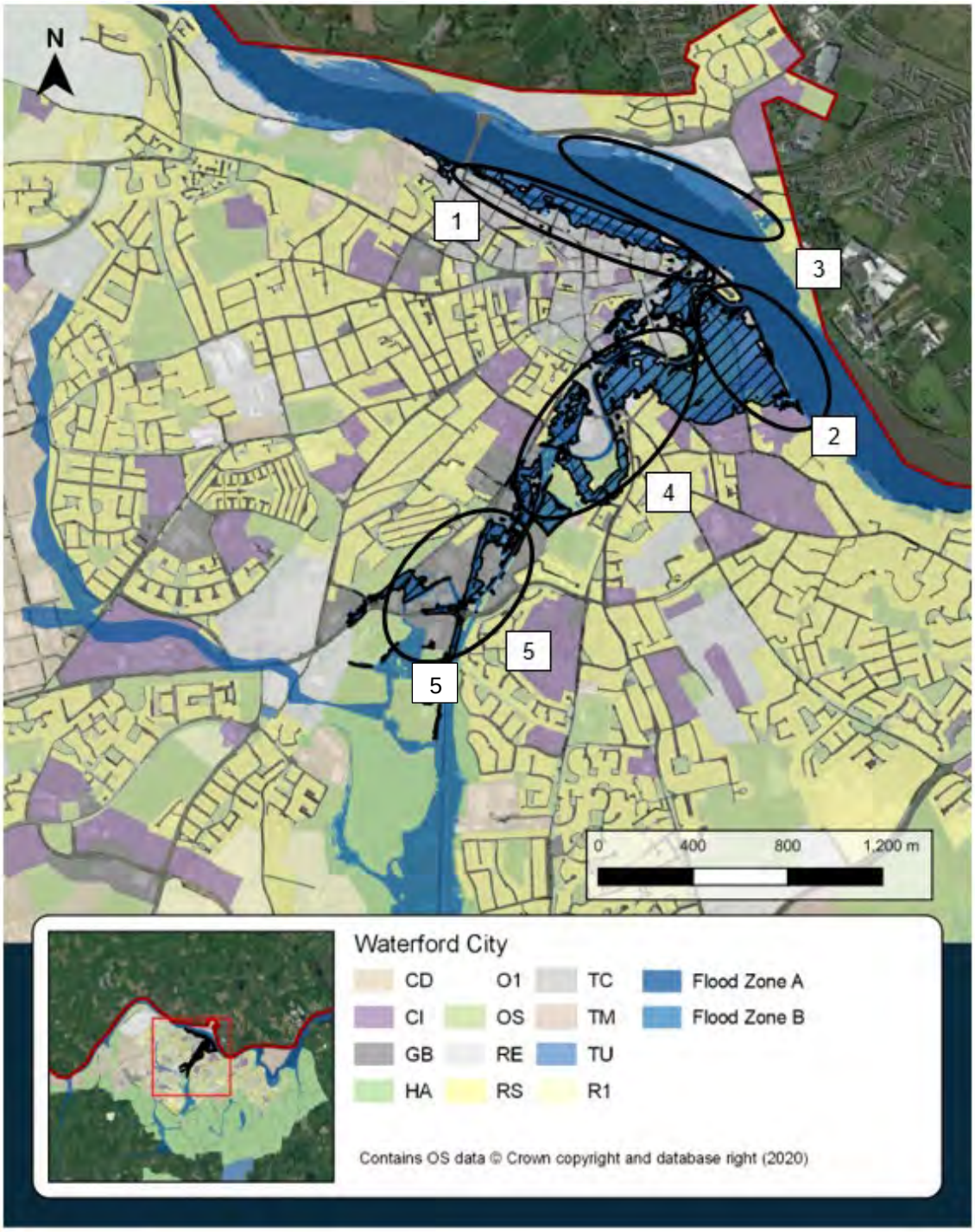


Figure 7-1: Waterford City and Environs Zoning

Table 7-1: Waterford City Justification Test table 1

Justification test for sites within Flood Zone A and / or B	Area 1 - Waterfront mixed use zoning (Carparking)	Area 2 - Waterfront mixed use zoning	Area 3 - North Quays
The urban settlement is targeted for growth	Yes	Yes	Yes
The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement	Lands in the city centre have a historic port use/car park use. The Draft Development Plan has identified that these lands have the capacity to deliver an area of significant amenity for the city centre along with limited commercial mixed uses. The development of this area will assist in achieving the principles of compact city centre first development as provided for in the NPF and RSES.	Lands to the east of the city centre are occupied by a mix of uses, dominated by open space and amenity of the Peoples Park, Water park School and sports fields and built out areas on the periphery of the city centre. Some regeneration and redevelopment lands are located within the floodzone which are either vacant or occupied by mixed commercial premises. The Draft Development Plan has identified that these lands have the capacity to deliver additional mixed use commercial development on brownfield lands and as such the development of this area will assist in achieving the principles of compact city centre first development as provided for in the NPF and RSES.	Lands in the city centre have a historic port use but have been vacant and underutilised for a number of years since the relocation of the Port of Waterford to Belview. The lands have been the identified as an SDZ and a Planning Scheme has been prepared in this regard. The Planning Scheme and the Draft Development Plan both identify the potential of this area to deliver significant mixed use regeneration north of the River Suir and thereby contribute to achieving the concentric city as envisaged in the RSES and MASP. The development of this area will also assist in achieving the principles of compact city centre first development as provided for in the NPF and RSES.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	The development of these lands will form an important element of the enhancement of amenity in the city centre and will assist in linking the north and south quays and lands east and west of the city centre along with relocation of car parking to a more appropriate out of centre or edge of centre location.	The development of these lands will be important in terms of facilitating addition commercial development on the edge of the city centre with possible above ground floor residential uses and associated car parking in support of enhancing the choice and availability of residential units close to the city centre.	The development of these lands will form an important element of the enhancement of amenity in the city centre and will assist in linking the north and south quays and creating a fulcrum north of the river on which to focus the concentric city as envisaged in the RSES and MASP.
Comprises significant previously developed and/ or under-utilised lands	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.
Is within or adjoining the core of an	Redevelopment lands are located at	Redevelopment lands are located on the	Redevelopment lands are located on the

Justification test for sites within Flood Zone A and / or B	Area 1 - Waterfront mixed use zoning (Carparking)	Area 2 - Waterfront mixed use zoning	Area 3 - North Quays
established or designated urban settlement	the centre of the historic city core.	periphery of the historic city centre.	periphery of the historic city centre.
Will be essential in achieving compact and sustainable urban growth	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	These undeveloped brownfield sites are the only vacant and undeveloped lands in the immediate vicinity of the city centre and as such their redevelopment will support the consolidation of Waterford City and enhancement of amenity and connectivity.	These undeveloped brownfield sites are the only vacant and undeveloped lands in the immediate vicinity of the city centre and as such their redevelopment will support the consolidation of Waterford City.	These undeveloped brownfield sites are the only vacant and undeveloped lands in the immediate vicinity of the city centre and as such their redevelopment will support the consolidation of Waterford City, delivery of the concentric city and enhancement of amenity and connectivity across the city and city centre.
A flood risk assessment to an appropriate level of detail has been carried out	Risks to this area are from direct inundation, based on tidal levels, from the Suir. The current car park use is surface level and considered water compatible, even within the mixed use zoning. The area is defended, and residual risks associated with this particular use are low. However, any change of use / new development in this area must be subject to SSFRA.	Risks to this area are from direct inundation, based on tidal levels, from the Suir. This area is currently developed and benefits from defences which protect against the 0.5% AEP tide (with adequate freeboard) and the 0.1% AEP tide (freeboard level unknown). SSFRA will be needed for future development here, following the flow charts for defended development.	Risks to this area are from direct inundation, based on tidal levels, from the Suir. The The North Quays SDZ has been subject to a recent SFRA, which proposed tidal risk be managed through raising FFL above 4.42m OD[5]. Any development proposal will need to be supported by a SSFRA which should the FFL to ensure this is still appropriate, and also consider current climate science with regards to allowances for climate change.
Result	Pass	Pass	Pass
Recommendation for zoning	Retain current zoning and land use.	Retain current zoning and land use.	Retain current zoning and land use.

5 Waterford North Quays Strategic Development Zone - Strategic Flood Risk Assessment, February 2018

Table 7-2: Waterford City Justification Test table 2

Justification test for sites within Flood Zone A and / or B	Area 4 - Town centre and mixed use	Area 5 - Upstream mixed use development	Waterford City Suburban Kilcohan & Kings Channel Area 6
The urban settlement is targeted for growth	Yes	Yes	Yes
The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement	Lands to the south of the city centre running along the line of the John's River and the Manor to the Cork Road are occupied by a mix of uses including retail, business, open space/ amenity and older historic residential areas/ streets. As with other areas of the historic city, there are some regeneration and redevelopment lands located within the floodzone which are either vacant or occupied by mixed commercial premises. The development of these regeneration sites will assist in achieving the principles of compact city centre first development as provided for in the NPF and RSES.	Lands lying further south of Area 4 running along the line of the John's River and the Cork Road are occupied by a mix of uses including retail, business, open space/amenity and older historic residential areas/streets. The area is predominantly built out and any regeneration will require the displacement of existing uses.	The lands are zoned for residential development in support of the residential function of the designated neighbourhoods within Waterford city as set out in section 3.3 of the development plan and will facilitate further consolidation of the neighbourhoods.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	The development of these lands will be important in terms of facilitating addition commercial development on the edge of the city centre with possible above ground floor residential uses and associated car parking in support of enhancing the choice and availability of residential units close to the city centre.	The development of these lands will be important in terms of facilitating addition commercial development with possible residential uses and associated car parking in support of enhancing the choice and availability of residential units close to the city centre.	The zoning of the lands will facilitate the ongoing residential development across the city in a manner consistent with the Neighbourhood Strategy.
Comprises significant previously developed and/ or under-utilised lands	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.	The lands are important to increasing the population across two city neighbourhoods and as such are underutilised.
Is within or adjoining the core of an established or designated urban settlement	Redevelopment lands are located on the approach to the city centre and potential for redevelopment within Flood Zone A and B is	Redevelopment lands are removed from the city centre but are located along a historic arterial route into the city. Potential for	The lands form part of two city neighbourhoods.

Justification test for sites within Flood Zone A and / or B	Area 4 - Town centre and mixed use	Area 5 - Upstream mixed use development	Waterford City Suburban Kilcohan & Kings Channel Area 6
	limited in terms of scale and opportunity.	redevelopment within the Flood Zone A and B is limited in terms of scale and opportunity.	
Will be essential in achieving compact and sustainable urban growth	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.	The development of the land will support and will be consistent with the preferred pattern of spatial growth for the city neighbourhoods as set out in Chapter 3 of the development plan.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	These undeveloped brownfield sites are located along the historic arterial route to the city centre. As such their redevelopment will support the consolidation of Waterford City in support of the RSES and MASP.	These undeveloped brownfield sites are limited in number and are located along the historic arterial route to the city centre. As such their redevelopment will support the consolidation of Waterford City in support of the RSES and MASP.	The lands provide a suitable location to complete the development of city neighbourhoods and as such there are no suitable alternative lands available.
A flood risk assessment to an appropriate level of detail has been carried out	Risks to this area are from a combination of fluvial and tidal risks arising from the Suir and John's River . This area is currently developed and benefits from defences which protect against the 1% AEP fluvial / 0.5% AEP tide (with adequate freeboard) and the 0.1% AEP event (freeboard level unknown). SSFRA will be needed for future development here, following the flow charts for defended development.	Risks to this area are from fluvial risks arising from John's River, with some influence of the Suir on the flood levels. This area is currently developed and benefits from defences which protect against the 1% AEP fluvial / 0.5% AEP tide (with adequate freeboard) and the 0.1% AEP event (freeboard level unknown). SSFRA will be needed for future development here, following the flow charts for defended development.	Any future development in the vicinity of floodzones should be supported by a site-specific flood risk assessment, which may refine the flood extents in this area. The sequential approach should then be applied to ensure highly and less vulnerable development is located within Flood Zone C.
Result	Pass	Pass	Pass
Recommendation for zoning	Retain current zoning and land use.	Retain current zoning and land use.	Retain current land zoning.

Table 7-3: Waterford City Justification Test table 3

Justification test for sites within Flood Zone A and / or B	Scattered areas of Existing residential	Ballybeg / Kilbarry
The urban settlement is targeted for growth	Yes	Yes
The zoning or designation of the lands for the particular use or	These scattered areas of development lands are predominantly under residential use with some commercial uses in and	Lands lying further south of Area 5 running partially along the line of the John's River and the Cork Road are occupied by a mix of uses

Justification test for sites within Flood Zone A and / or B	Scattered areas of Existing residential	Ballybeg / Kilbarry
development type is required to achieve the proper planning and sustainable development of the urban settlement	around the city centre/quays. It is likely that redevelopment will be confined to minor development types.	including retail, business, open space/amenity and older historic residential areas/streets. The lands are also zoned for regeneration uses and offer potential for development to support the expansion of WIT and improvement of this main artery into the city centre. Scope also exists for significant enhancement of general amenity and open space. The development of these regeneration sites will assist in achieving the principles of compact, sequential development as provided for in the NPF and RSES.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	There is limited opportunity for minor development, small infill development or residential extensions.	The development of these lands will be important in terms of facilitating addition commercial development with possible residential uses and associated amenity areas car parking in support of enhancing the choice and availability of residential units and possible student accommodation on the main arterial access route to the city centre.
Comprises significant previously developed and/ or under-utilised lands	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.	Development opportunities are limited to brownfield sites which are either vacant, or underutilised.
Is within or adjoining the core of an established or designated urban settlement	Redevelopment lands are removed from the city centre but are located along a historic arterial route into the city. Potential for redevelopment within the Flood Zone is limited in terms of scale and opportunity.	Redevelopment lands are removed from the city centre but are located along a historic arterial route into the city. Potential for redevelopment within the Flood Zone is limited in terms of scale and opportunity. This route will likely be a high capacity public transport corridor given its location between WIT and the city centre.
Will be essential in achieving compact and sustainable urban growth	The lands have been predominantly developed out to date with potential for only limited infill and minor development. Development will assist in achieving sustainable compact growth.	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that will enable Waterford City to meet its designated function as set out in the NPF and RSES.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The lands have been predominantly built out for residential uses. Redevelopment will however support the consolidation of Waterford City in support of the RSES and MASP.	These undeveloped brownfield sites are limited in number and are located along the historic arterial route to the city centre. As such their redevelopment will support the consolidation of Waterford City in support of the RSES and MASP.
A flood risk assessment to an appropriate level of detail has been carried out	Risks to this area are from a combination of fluvial and tidal risks arising from the Suir and John's River . This area is currently developed and benefits from defences which protect against the 1% AEP fluvial / 0.5% AEP tide (with adequate freeboard) and the	Risks to this area are indicated in the OPW's PFRA mapping, which indicates risk from the John River. It is recognised that this mapping is broadscale and indicative in nature. Development proposals should be accompanied by and appropriately detailed FRA. Once the Flood

Justification test for sites within Flood Zone A and / or B	Scattered areas of Existing residential	Ballybeg / Kilbarry
	0.1% AEP event (freeboard level unknown). Minor developments should be supported by an appropriately detailed SSFRA. Mayor future redevelopment will need to be informed by a detailed SSFRA and include application of the sequential approach.	Zones have been reviewed, and if appropriate refined, the sequential approach should be applied to locate development within Flood Zone C.
Result	Pass	Pass, subject to sequential approach.
Recommendation for zoning	Retain current zoning and land use.	Retain current zoning and land use

7.2.2 Dungarvan

The river and estuary in Dungarvan are wide, but flood extents are relatively contained, with the clear exception of the lands north of the town centre and the Duckspool area. Dungarvan and Environs have been listed as one of the settlements to benefit from the OPW's 10 year investment programme, but the timeframe for these works are unknown. It should be noted that although the Duckspool area benefits from some level of protection, this is through informal defences which are infrequently maintained and do not have a certified standard of protection. For the purposes of the SFRA this land is considered to be undefended.

There is some encroachment of Flood Zones A and B into lands zoned for new and existing residential development. In these areas new development here should be limited to Minor Development (Section 5.28 of the Planning Guidelines). There is also risk to some town centre lands (1). The Justification Test has been applied to these areas, along with the existing residential development to the east of Dungarvan (2). Where other lands, including mixed use, strategic reserve and residential zoned lands, lie within Flood Zone A and / B, the sequential approach shall be applied and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific FRA.

To the west of Dungarvan an area zoned for N6 (other networks and basic infrastructure / utilities, and is currently a petrol filling station with car dealership and shop (3) is partly within Flood Zone A and B. However, the building footprint is within Flood Zone C. Further development of this site should be focused within Flood Zone C.

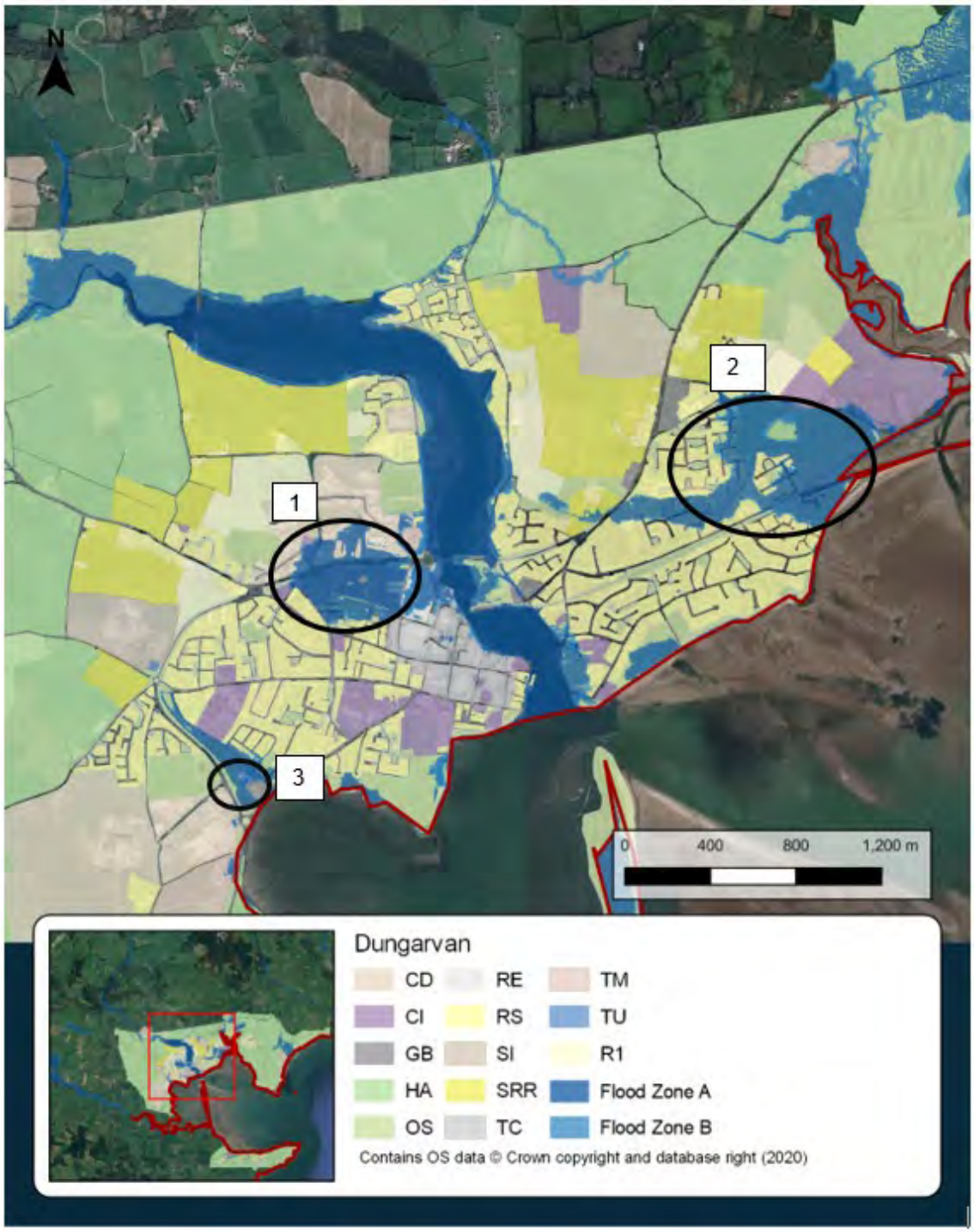


Figure 7-2: Dungarvan Zoning

Table 7-4: Dungarvan Justification Test

Justification test for sites within Flood Zone A and / or B	Area 1 - Town Centre, Mixed Use and Industrial	Existing Residential throughout Dungarvan (including Area 2)
The urban settlement is targeted for growth	Yes	Yes
The zoning or designation of the lands for the particular use or	Lands in the town centre consist predominantly of brownfield redevelopment sites and their development will assist in	With the exception of lands which have been identified for green belt/amenity purposes in the Draft Development Plan, the remaining lands have been

Justification test for sites within Flood Zone A and / or B	Area 1 - Town Centre, Mixed Use and Industrial	Existing Residential throughout Dungarvan (including Area 2)
development type is required to achieve the proper planning and sustainable development of the urban settlement	achieving the principles of compact town centre first development as provided for in the NPF and RSES.	developed out for residential development predominantly.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	The development of these regeneration lands will form an important element of the town centre redevelopment and will link the town centre to the area around Shandon which is identified in the draft development plan as an area of future expansion close to the historic core of Dungarvan.	There is limited opportunity for development of small infill development or residential extensions only.
Comprises significant previously developed and/ or under-utilised lands	The majority of lands in the flood zone are currently developed for a mix of uses typical to a County Town (Key Town) the size of Dungarvan. The remaining undeveloped lands will contribute to the completion of the north western periphery of the town centre for predominantly mixed use commercial development.	The lands have been developed out to date with potential for only limited infill development.
Is within or adjoining the core of an established or designated urban settlement	The remaining undeveloped lands lie immediately adjacent to the town core.	The lands have been developed out to date with potential for only limited infill development.
Will be essential in achieving compact and sustainable urban growth	The redevelopment of the brownfield sites will contribute to compact and sustainable growth in a way that enabled Dungarvan to meet its designated function as set out in the NPF and RSES.	The lands have been developed out to date with potential for only limited infill development.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	These undeveloped brownfield sites are the only vacant and undeveloped lands in the immediate vicinity of the town centre and as such their redevelopment will support the consolidation of the town, particularly between the N25 and the town centre.	The lands have been predominantly built out for residential uses. To avoid significant new development in Area 2, all lands identified for new residential development in Dungarvan lie outside the flood zone identified in Area 2.
A flood risk assessment to an appropriate level of detail has been carried out	Part of the town centre is shown to be within Flood Zone A and further examination of the CFRAM mapping shows this to be risk from tidal flooding, with depths of up to 1.5m possible in the 0.5% AEP event across lands to the south of the N25. As risk is largely tidal, mitigation measures including ground raising would be feasible and should be investigated as part of a site specific FRA, or local masterplan FRA; the FRA would need to demonstrate that risks could be managed within the development	Risk to this area is from tidally driven inundation which presents a risk to existing development. New development in this area should be limited to Minor Development (Section 5.28 of the Planning Guidelines). New, large scale development within Flood Zones A and B would be considered premature until a scheme has been completed.

Justification test for sites within Flood Zone A and / or B	Area 1 - Town Centre, Mixed Use and Industrial	Existing Residential throughout Dungarvan (including Area 2)
	area and would need to consider residual risks including climate change and the 0.1% AEP tidal event. However, new development will also need to consider any flood relief scheme plans and ensure site specific mitigation does not impact on the scheme. Development proposals which cannot manage risks within their own boundary would be considered premature until a scheme has been completed.	
Result	Pass	Pass
Recommendation for zoning	Retain current zoning and land use.	Retain current use for existing residential but no new development permitted.

7.2.3 Clonmel Environs

Flood Zone A covers a significant proportion of the settlement land, but the majority of land within Flood Zone A and B has been zoned for open space uses which are appropriate and should be maintained; this is supported by a development objective requiring 40m buffer between the river and development. There is a school site partially within Flood Zone A. This is a highly vulnerable use but is defended. Further development of the school will require a SSFRA to review residual risks and mitigation measures.

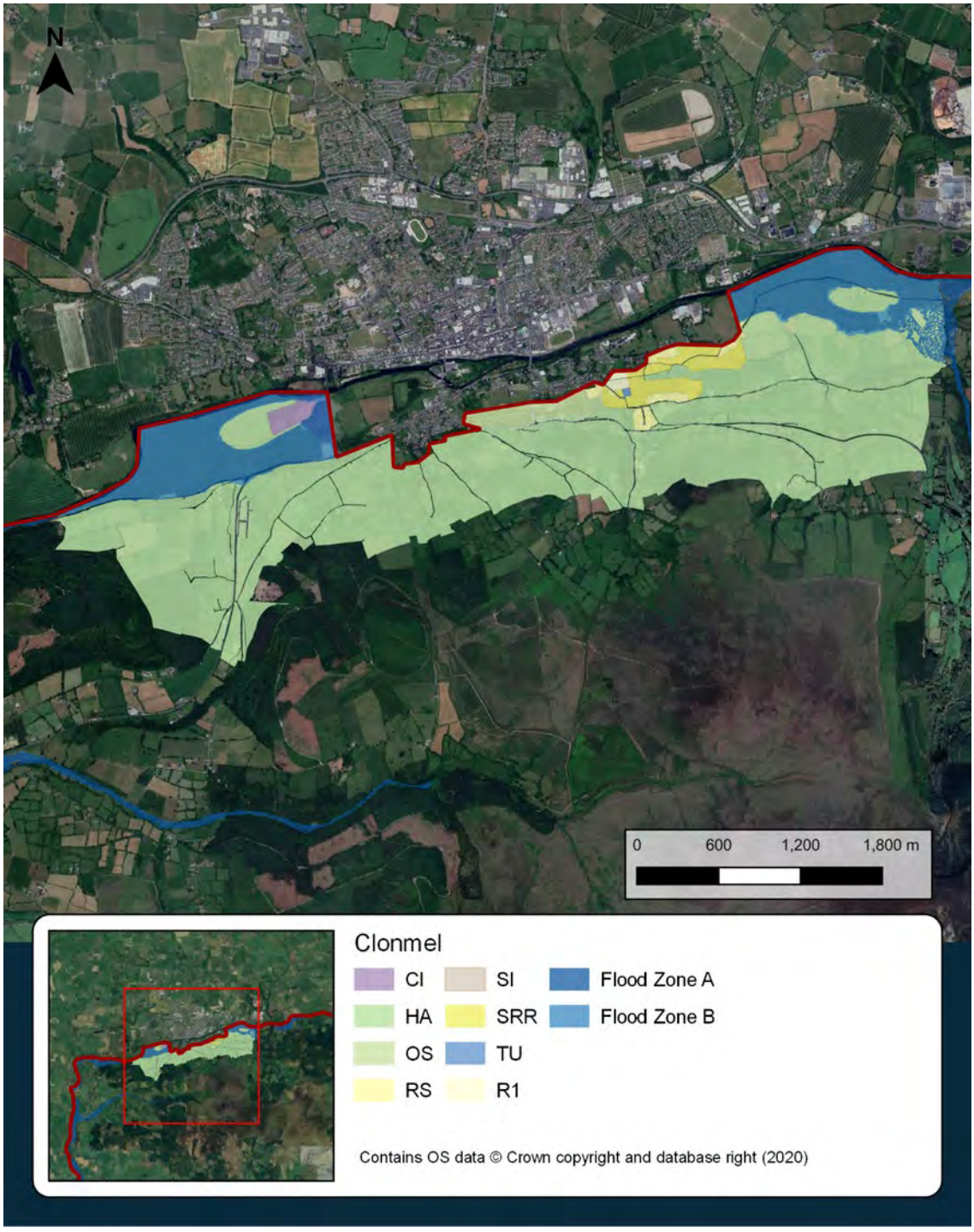


Figure 7-3: Clonmel Zoning

7.2.4 Tramore

The extents of flooding in Tramore are largely constrained to a narrow river corridor which has been zoned for water compatible open space use and is appropriate and should be maintained. In area 1, there is a larger extent of Flood Zone A across land zoned for Regeneration. A Justification Test has been carried out and passed. Part 3 of the Justification Test found it was likely that onsite mitigation could be provided to mitigate flood risk, and if not then development will be restricted to Flood Zone C.

Where there is a small overlap between Flood Zone A and B and lands zoned for highly or less vulnerable uses, the sequential approach shall be applied and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific FRA.

Risk from tidal flooding is also low, but proposed development along the coastline should include a flood risk assessment which considers the impact of climate change on sea levels for the 0.5% and 0.1% AEP events, and wave overtopping should also be taken into account.

Table 7-5: Tramore Justification Test

Justification test for sites within Flood Zone A and / or B	Tramore - 2196
The urban settlement is targeted for growth	Yes
The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement	The lands are zoned for general business uses with a specific development objective to omit any ancillary residential development so as to avoid highly vulnerable uses being accommodated on the lands.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	These lands are the only lands so zoned with potential to deliver additional employment which will further the aim of the development plan to move Tramore to a more self-sustaining town.
Comprises significant previously developed and/ or under-utilised lands	The lands have been underutilised historically and offer a significant opportunity to facilitate employment opportunities for the town.
Is within or adjoining the core of an established or designated urban settlement	Lands zoned for a mix of employment and commercial uses within the settlement have been largely developed out with potential for only limited infill development.
Will be essential in achieving compact and sustainable urban growth	Development on the lands will contribute towards delivering employment locally and a move towards a more self-sustaining model of growth for Tramore.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The main quantum of lands identified for employment uses have been built out and the lands concerned are appropriately located adjacent to the Regional Road R675 linking Tramore to Waterford City and the 360, 360A and 360X public transport route.
A flood risk assessment to an appropriate level of detail has been carried out	Given the shape and form of land within the zoning objective, it is likely that onsite mitigation could be provided, and if not, then development will be restricted to Flood Zone C.
Result	Pass
Recommendation for zoning	Retain the land use zoning provisions in support of commercial activity only.

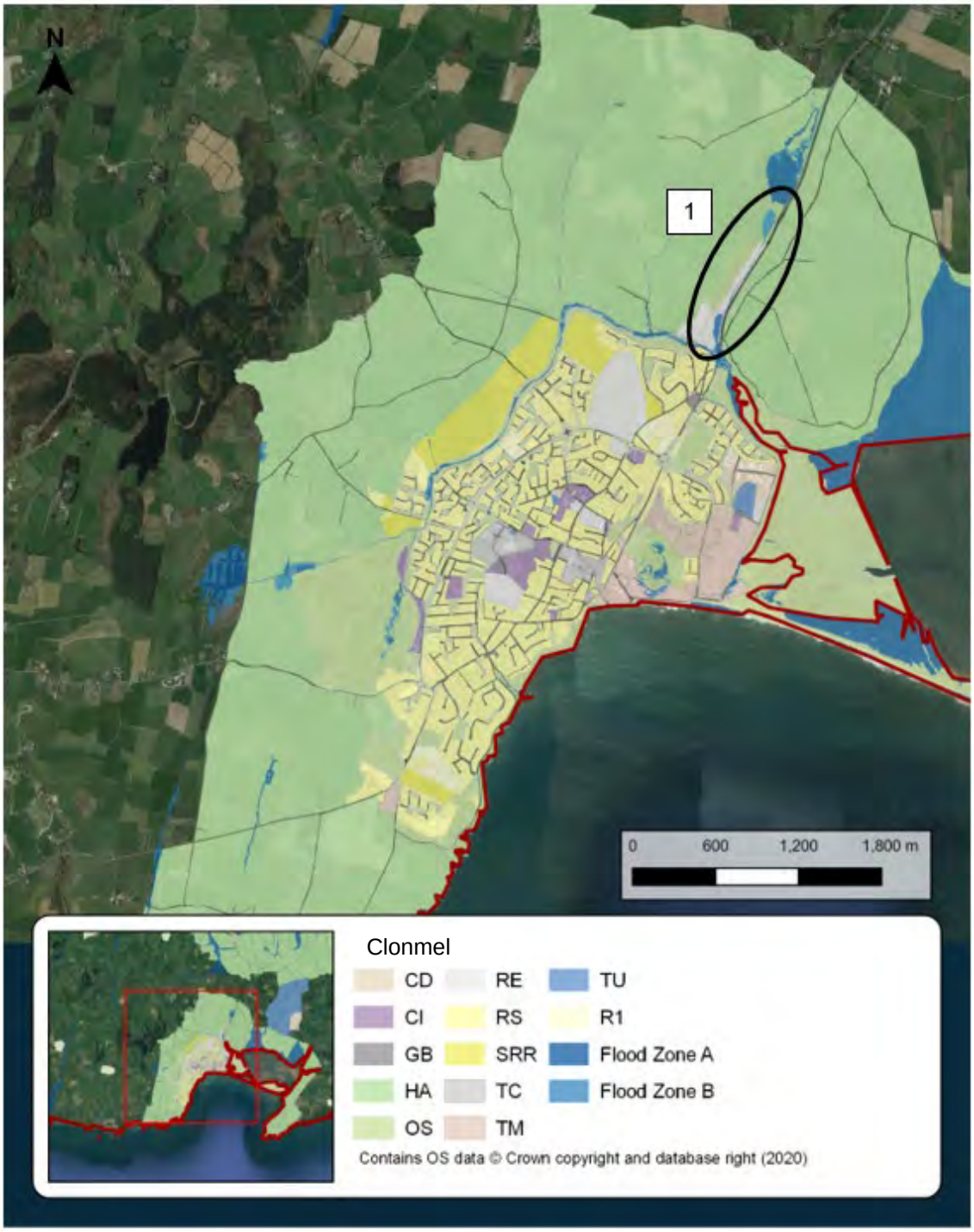


Figure 7-4: Tramore Zoning

7.2.5 Dunmore East

There some flood risk associated with the two watercourses in Dunmore East. Due to the steepness of the settlement, the flood extents are generally close to the watercourses. There is some inundation of lands at the junction of the two watercourses. Although zoned residential, this land is largely parkland / open space, and should be retained as such.

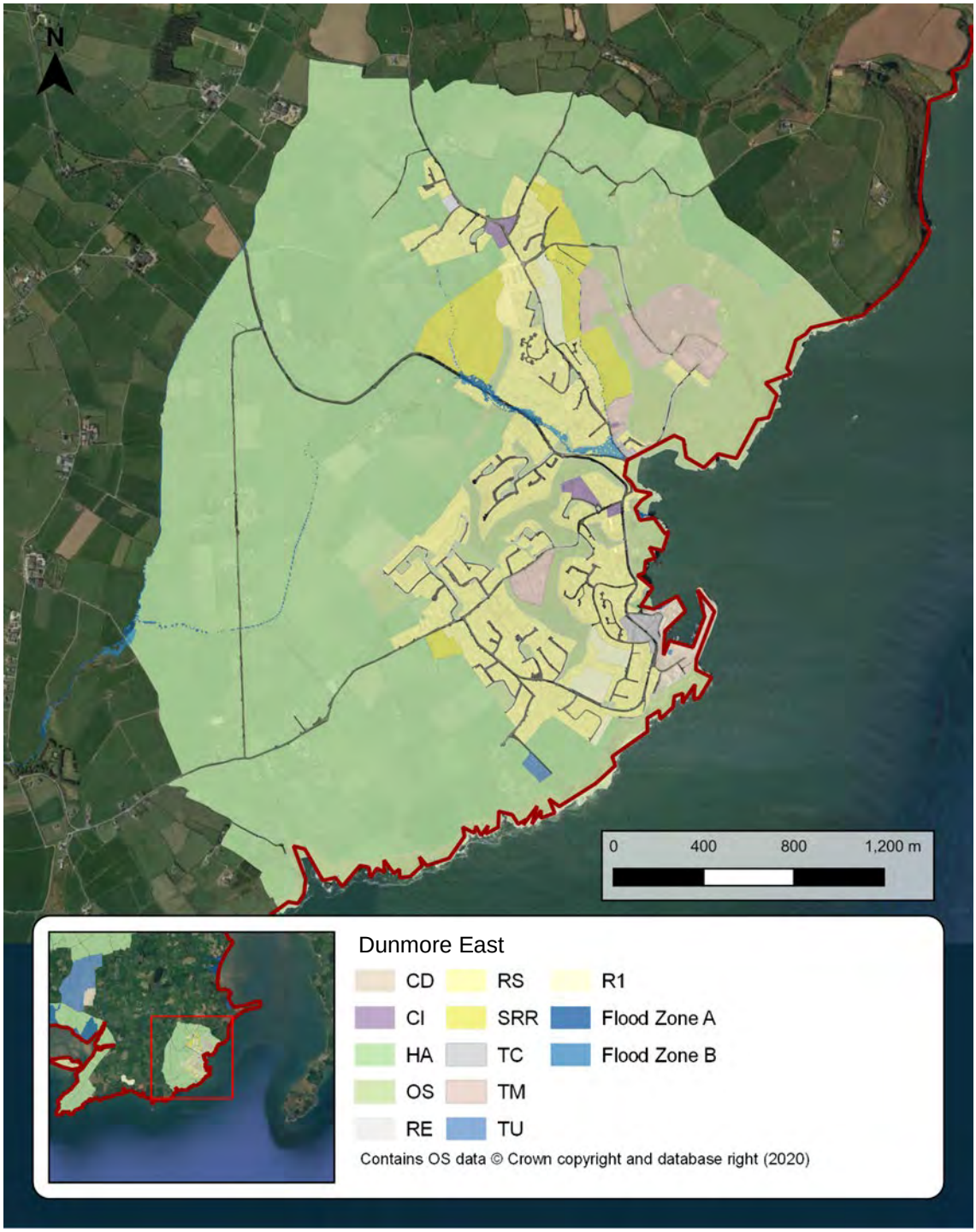


Figure 7-5: Dunmore East Zoning

There are areas Existing Residential, Industrial and Enterprise and Employment zoning partially within Flood Zone A and B. Although the zoning has been retained to reflect the existing land use, highly or less vulnerable development within this settlement, and within Flood Zone A and B, has not passed the Justification Test for Development Plans; the sequential approach shall be applied and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific FRA. Where there is existing residential

development within Flood Zone A or B, works should be limited to minor development (Section 5.28 of the Planning Guidelines).

There is a watercourse which runs through and area of Strategic Reserve, but the flood extents are within bank so the development area is within Flood Zone C and does not require the application of the Justification Test.

7.2.6 Gaeltacht na nDéise

The primary source of flood risk in Gaeltacht na nDéise is from coastal sources. Within the area defined as Flood Zone A and B along the coast are two land parcels zoned for seaport / harbour. This is a water compatible use and can be retained. However, the sequential approach should be applied with respect to development within the harbour areas.

There is also a watercourse which passed through the eastern boundary of An Rinn. The extent of Flood Zone A from this watercourse crosses land zoned for Industrial, enterprise, employment and for mixed use. A Justification Test has been applied and passed, reflecting the existing land use. Any future development in the vicinity of this watercourse should be supported by a site specific flood risk assessment, which may refine the flood extents in this area. The sequential approach should then be applied to ensure highly and less vulnerable development is located within Flood Zone C.

Table 7-6: An Rinn Justification Test

Justification test for sites within Flood Zone A and / or B	An Rinn – Industrial, Enterprise, Employment and Mixed uses
The urban settlement is targeted for growth	Yes
The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement	The lands are zoned for commercial employment uses and are in the main built out with little capacity to accommodate new operators and some capacity to facilitate expansion of existing activities.
Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement.	The zoning of the lands will facilitate the ongoing commercial activities on the lands and the expansion of same as necessary.
Comprises significant previously developed and/ or under-utilised lands	The lands have been developed out to date with potential for only limited infill development.
Is within or adjoining the core of an established or designated urban settlement	The lands have been developed out to date with potential for only limited infill development.
Will be essential in achieving compact and sustainable urban growth	The commercial activity taking place on the lands and it future expansion is critical to supporting local employment in the Gaeltacht community.
There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The land use zoning reflects the pattern of existing development and is supportive of the continuation and possible consolidation of such use. There are no suitable alternative lands available.
A flood risk assessment to an appropriate level of detail has been carried out	Any future development in the vicinity of this watercourse should be supported by a site-specific flood risk assessment, which may refine the flood extents in this area. The sequential approach should then be applied to ensure highly and less vulnerable development is located within Flood Zone C.
Result	Pass
Recommendation for zoning	Retain current uses and associated land use zoning provisions to support commercial activity only.

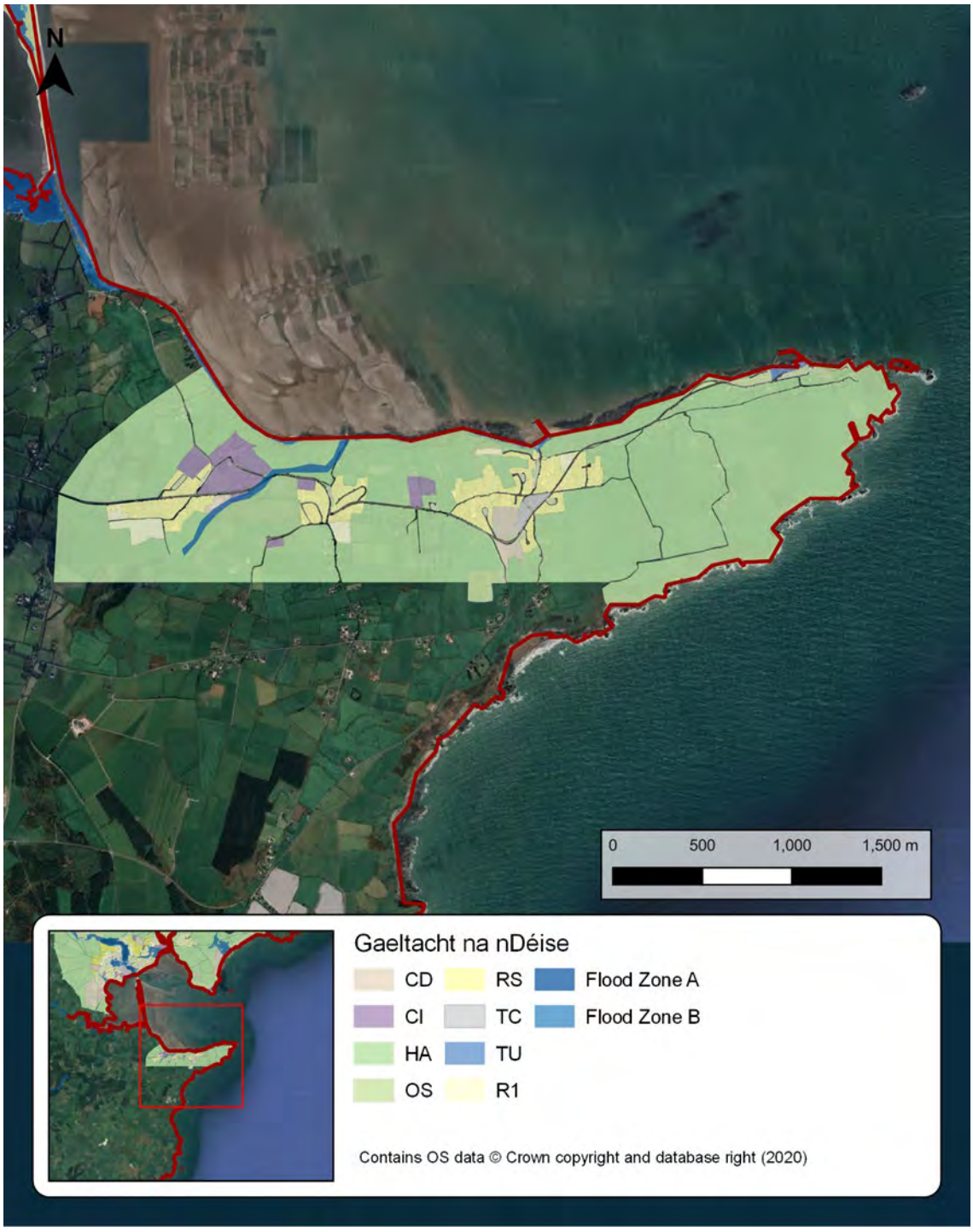


Figure 7-6 Gaeltacht na nDéise Zoning

7.2.7 Portlaw

Flood Zone A is extensive within Portlaw but is largely across land zoned for water compatible open space uses which is appropriate and should be retained. The watercourses, in the form of a mill system, flow through an area zoned for mixed use (1) Where there is a small overlap between Flood Zone A and B and existing residential development or the strategic reserve (2), the sequential approach shall be applied and development within Flood Zone A will be avoided, whilst in Flood Zone B only less vulnerable uses will be appropriate, subject to site specific FRA.

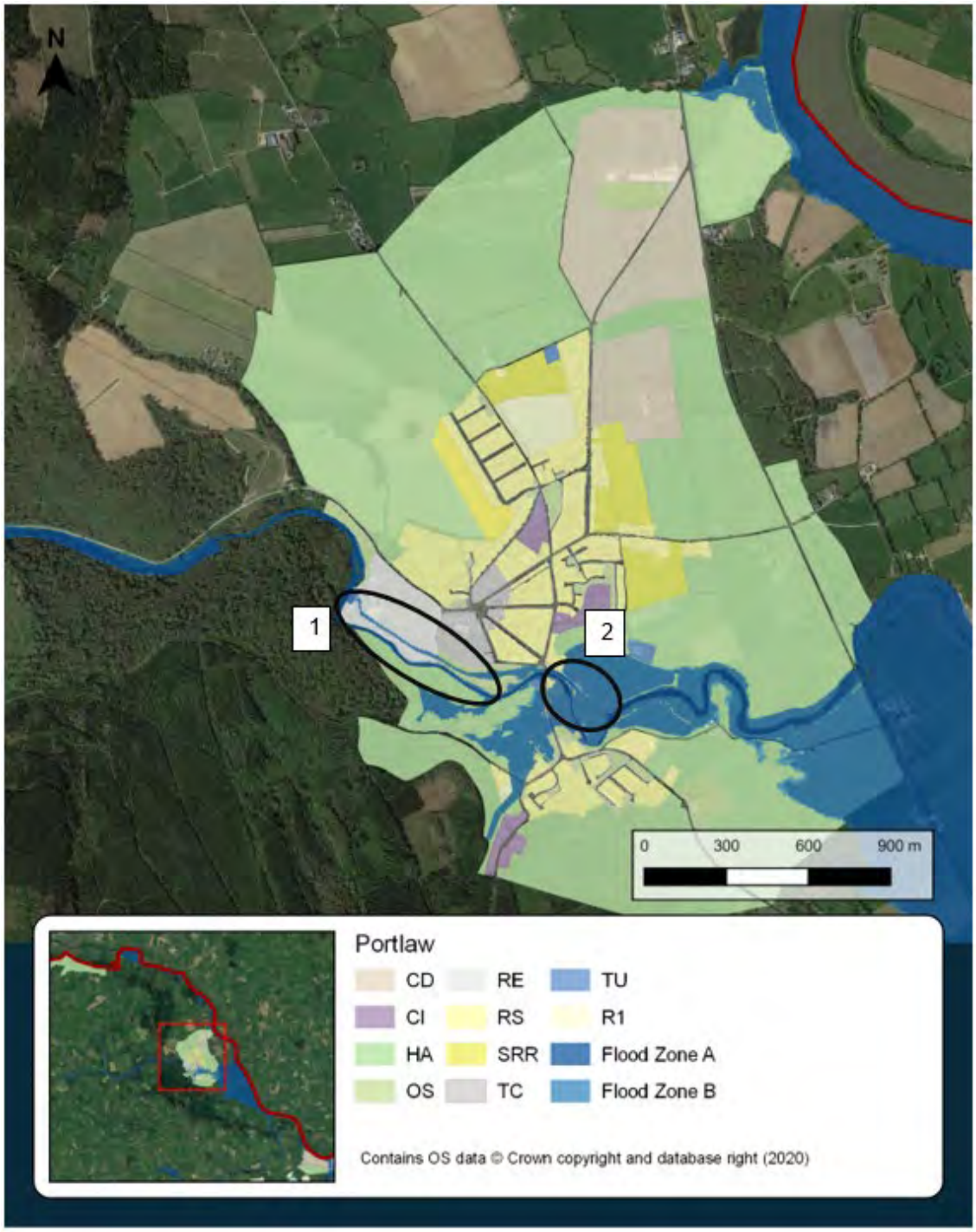


Figure 7-7: Portlaw Zoning

7.2.8 Rural Towns, Villages and Nodes

As part of the screening assessment, fluvial and/or tidal risk has been identified in a number of Rural Towns, Rural Villages and Rural Nodes. These settlements are covered by the Rural Village (RV) zoning objective, which is to "protect and promote the character of the Rural Village and promote a vibrant community appropriate to available physical and community infrastructure".

- Aglish
- Ardmore
- Ballyduff upper
- Ballymacarbry
- Bonamahon / Knockmahon
- Cappoquin
- Cheekpoint
- Clashmore
- Clonea Power
- Dunhill
- Fenor
- Kilmacthomas
- Kilmeaden / Ballyduff
- Lemybrien / Kilrossanty
- Passage East
- Tallow

The Justification Test has not been applied, or passed, in these settlements. Therefore, highly and vulnerable development should be avoided in Flood Zones A and B, and less vulnerable development should be avoided in Flood Zone A. In Flood Zones A and B, only minor development (Section 5.28 as amended) and water compatible uses will be permitted, and will be subject to site specific flood risk assessment..

7.2.9 Open Countryside and White Land

All areas outside of the settlements listed in the hierarchy have been classed as white land in the settlement hierarchy of the Development Plan.

The Development Plan itself generally does not provide for land use zonings and the Plan Making Justification Test has not been applied or passed. Therefore, in line with the Flood Risk Guidelines, the sequential approach should be applied. In these areas new, highly and less vulnerable development should be located in Flood Zone C. In Flood Zones A and B, only minor development (Section 5.28 as amended) and water compatible uses will be permitted.

To support the assessment of site specific risk and application of the sequential approach, a Flood Zone map for the rural area has been prepared, covering all watercourses with a catchment area of greater than 5km^2. Where there are local watercourses present, but not included in the Flood Zone map, a site specific flood risk assessment should be carried out with a view to defining the Flood Zones and then applying the sequential approach.

7.3 Climate change risk identified

In addition to the current level of flood risk (either fluvial or coastal), this SFRA has identified a number of settlements which could be at significantly greater risk when future (climate change) scenarios are considered. These settlements are mainly located along the coast, where between a 0.5m (medium range future scenario) and 1m (high end future scenario) rise in sea level should be allowed for, based on current OPW guidance. This appraisal has not included storm damage which occurs currently, or may occur in the future. It is based on still sea levels only.

Settlements which have a medium to high level of climate change risk have been identified as:

- Ardmore
- Bunmahon / Knockmahon
- Cheekpoint
- Dungarven and Environs
- Dunmore East
- Passage East
- Portlaw
- Tramore
- Waterford City

In these settlements it is essential that the impacts of climate change, and in particular sea level rise are assessed for developments in Flood Zone A and B, and those in proximity to Flood Zone A and B, to ensure long term sustainability can be maintained. Guidance on climate change assessments is provided in Section 5.8.

8 SFRA Review and Monitoring

An update to the SFRA will be triggered by the six year review cycle that applies to Local Authority development plans. In addition, there are a number of other potential triggers for an SFRA review and these are listed in Table 8-1.

There are a number of key outputs from possible future studies and datasets, which should be incorporated into any update of the SFRA as availability allows. Not all future sources of information should trigger an immediate full update of the SFRA; however, new information should be collected and kept alongside the SFRA until it is updated.

Additional information will arise from the OPW flood relief schemes in Dungarvan and Environs, Aglish and Ballyduff. Not only will these studies revisit the CFRAM assessment, but once schemes are in place the definition of risk will change significantly for existing development, and possibly also for undeveloped lands.

The CFRAM Studies themselves also run on a six yearly cycle, so updates arising from future iterations and extensions of the CFRAM should be incorporated into SFRA updates.

Detailed, site specific FRAs may be submitted to support planning applications. Whilst these reports will not trigger a review of the Flood Zone maps or SFRA, they should be retained and reviewed as part of the next cycle of the Development Plan.

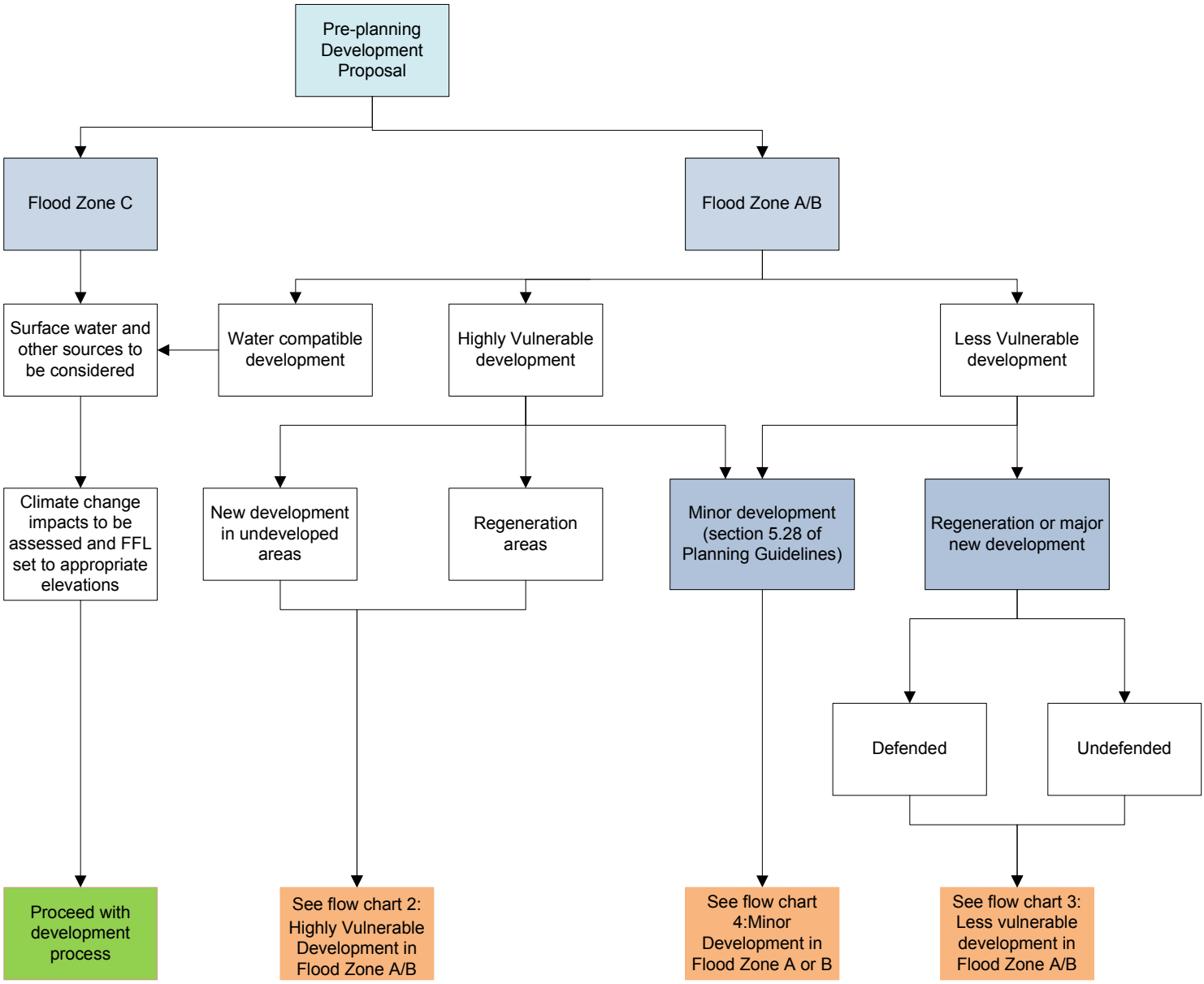
Table 8-1: SFRA Review Triggers

Trigger	Source	Possible Timescale
EU Floods Directive required review of the PFRA, the FRMPs and the flood maps	OPW	Six yearly cycle
Updates to predictive flood mapping	OPW	Unknown
OPW Flood Relief Scheme outputs	OPW	Unknown
Flood maps of other sources, such as drainage networks	Various	Unknown
Significant flood events	Various	Unknown
Changes to Planning and / or Flood Management Policy	DoEHLG / OPW	Unknown
Construction / completion of flood relief schemes	OPW / DLRCC	Unknown

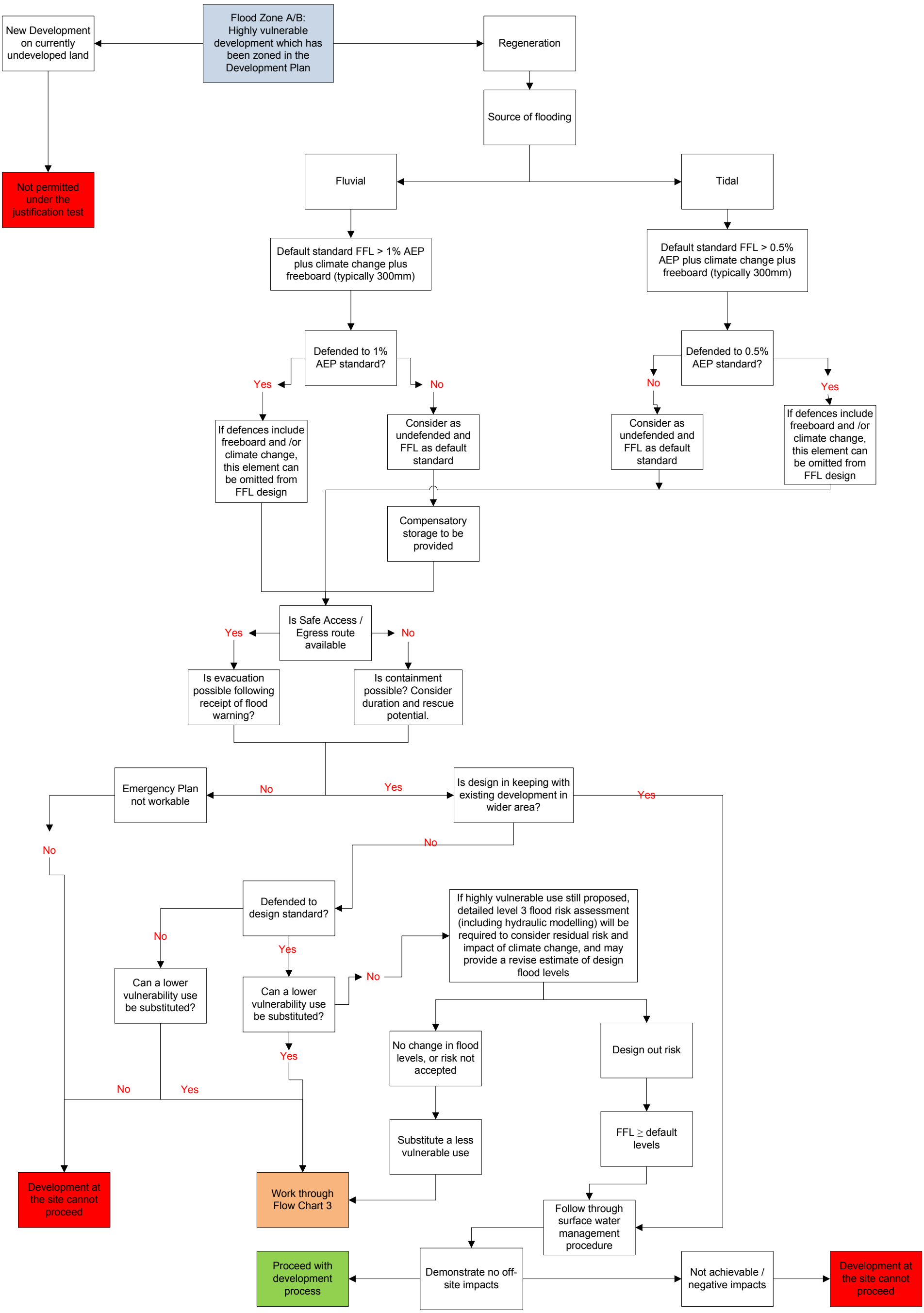
Appendices

A Development Flow Charts

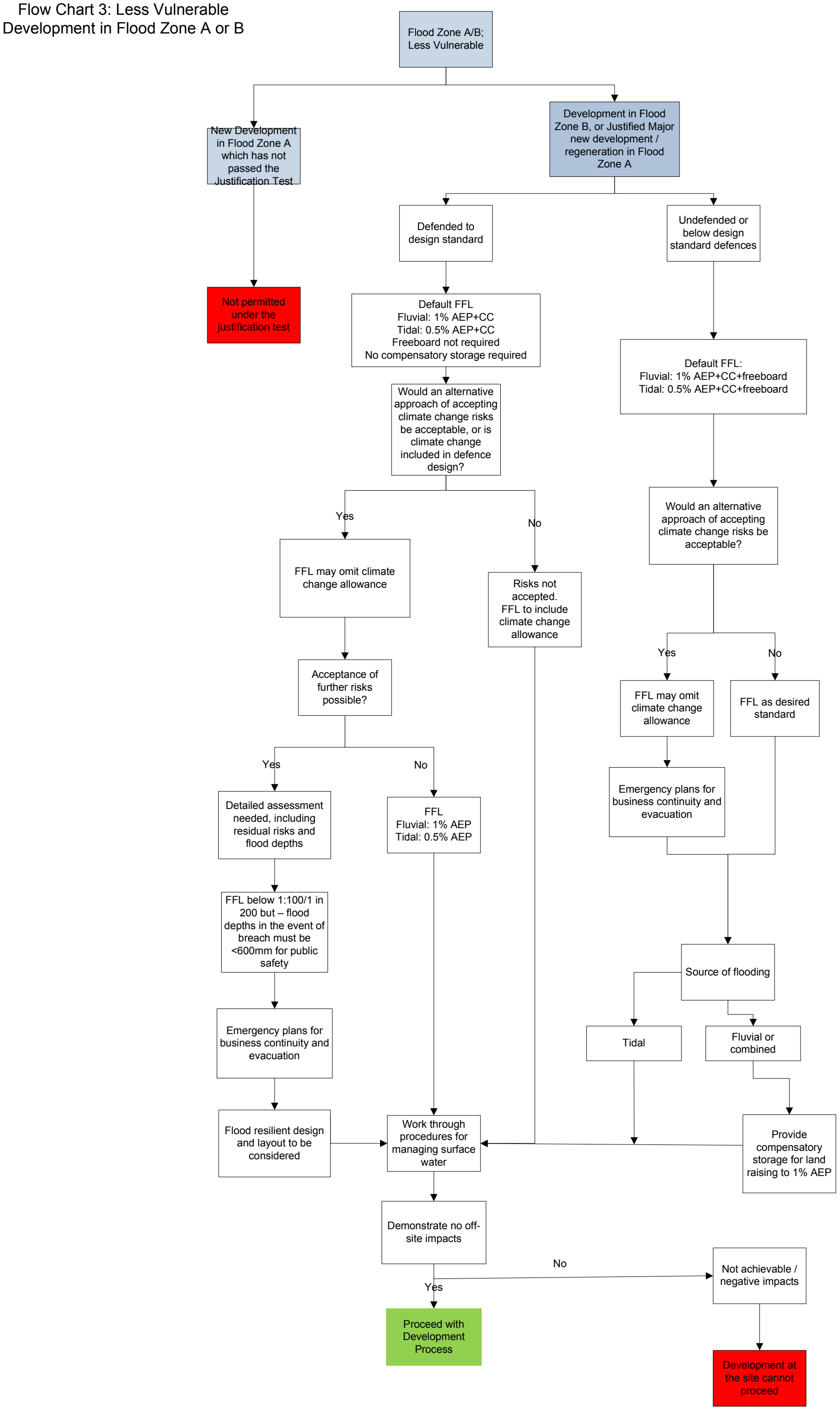
Flow Chart 1: Development Management Process



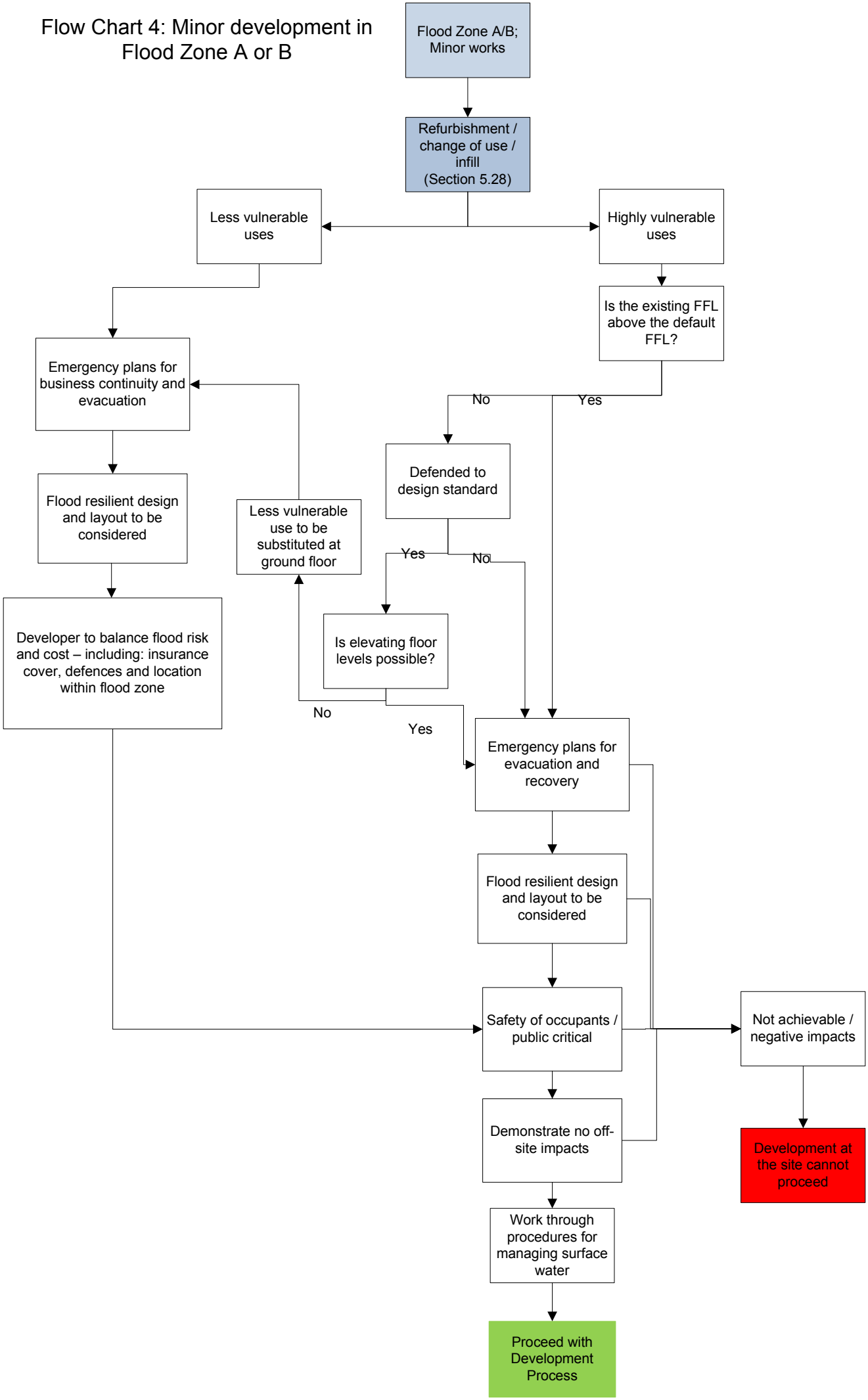
Flow Chart 2: Highly Vulnerable Development in Flood Zone A/B



Flow Chart 3: Less Vulnerable Development in Flood Zone A or B



Flow Chart 4: Minor development in Flood Zone A or B



Appendix 14
Infastructure Capacity

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Council Draft Development Plan 2022 - 2028

APPENDIX 14 – Infrastructure Capacity

1.0 Purpose of Appendix No. 14

This Infrastructure Assessment Report has been prepared in accordance with the methodology provided in the NPF to determine a residential zoning framework and to support sustainable growth and development over the lifetime of the Plan for the following zoned settlements within the County:

- Waterford City,
- Dungarvan/Ballinroad,
- Clonmel Environs,
- Tramore,
- Dunmore East,
- Lismore,
- Portlaw; and
- Gaeltacht na nDéise

The report should be read in conjunction with Appendix No. 17 Tiered Approach

2.0 Infrastructure Assessment - Challenges

A mis-alignment exists between the timeframe of the development plan and some of the capital investment plans that are required to inform the plan. The delivery of strategic infrastructure projects is ultimately dependent upon the availability of capital and government policy. The current capital investment plan of Irish Water covers the period from 2020 to 2024 and is shorter than the timeframe of the development plan. While a reasonable level of certainty can be anticipated regarding the delivery of infrastructure over the period 2020-2024, no such certainty can be provided regarding the delivery of water and wastewater infrastructure projects that do not form part of Irish Water's current investment plan. In the absence of certainty due consideration is given to the NPF provision which states that Tier 2 lands must "…have potential to become fully serviced within the life of the plan".

The NPF requires the development plan to include a reasonable estimate for the full cost of delivery of the infrastructure identified. This requirement presents a challenge and not all costs are available or known. Notwithstanding, every effort has been made to include the costs where a verifiable source for same has been identified. In most cases, the Council does not bear any responsibility for the preparation of these cost estimates.

This assessment does not comprise an exhaustive list of requisite infrastructures across the zoned settlements in County and while it is intended in inform, it is not to be relied upon for development management purposes. The purpose of the assessment is to demonstrate how lands

zoned in the development plan, with potential for residential development, are either sufficiently serviced (Tier 1) or have potential to become fully serviced within the timeframe of the Plan (Tier 2) (in compliance with Appendix 3 of the NPF). The assessment is point-in-time and it is acknowledged that infrastructure requirements may change. The full extent of requisite enabling infrastructure will continue to be assessed through the development management process whereupon detailed assessment will be undertaken

2.1 Strategic Infrastructure – Regional and County Constraints

Certain strategic infrastructure projects are of significance to the future growth of the entire County, and to the wider South East Region. The overall water supply and wastewater situation in Waterford is critical, and it's almost certain to become more so in the absence of significant infrastructure investment. Increased development experienced in recent areas of the City and County has placed stresses and pressures on existing water supply and wastewater infrastructure. There are also a number of transport projects of strategic importance which will improve public transport provision across the City and County and support ongoing sustainable growth over the course of the development plan period and beyond. The following Tables sets out an overview of such strategic infrastructure projects that relate to overarching growth at both a city and county level but also at a regional level.

2.2 Strategic Water Infrastructure – Regional/County

Waterford City and County is served by 107 public water supplies. This represents some 10% of the total public schemes in the country. There are 2 major water supplies in the county:

Dungarvan water supply is a borehold that serves Dungarvan town and environs. East Waterford Water Supply is a major water treatment plant that serves East Waterford including the city and Dunmore east region. In addition, there are 13 reasonably sized schemes that supply between 200-800m3/day (serving ~20% of demand) and that serve the larger towns, for example, Tallow, Lismore, Stradbally, Kilmacthomas.

The remainder of the water supplies (92 number serving 20% of demand) serve small towns and villages and supply <200 m3/day. Of these, there are 68 numbers that are extremely small, serve small rural communities and produce <50 m3/day. These 92 schemes are either sourced from springs or bored wells.

East Waterford Water Supply Scheme

This scheme is the primary water supply in Co. Waterford. It supplies potable water to Waterford City and the eastern parts of the county including Tramore and Dunmore East.

The East Waterford Water Supply Scheme (EWWSS) was originally constructed and commissioned in 1984 to provide 25,000m^3 approx. of potable water on a daily basis. Since then, steady population growth and increases in commercial/industrial development and tourism in the eastern region of County Waterford has demanded a significant increase in the capacity of the potable water supply facilities for the region. Waterford County Council appointed MC O'Sullivan Consulting Engineers (now RPS Consulting Engineers) to initially examine and report on the feasibility of expanding the overall capacity of the EWWSS, while conforming with the various Environmental Legislation, Directives and Regulations governing the sourcing, treatment and supply of drinking water in Ireland.

West Waterford Regional Supply Scheme

The West Waterford Area includes almost half of the county. There are over 50 separate Water Supply Schemes currently serving the area, many of which are experiencing supply shortages or water quality problems. The lack of an adequate water supply is a major constraint on the sustainable development of the area. For these reasons, Waterford City & County Council wish to rationalise the existing supply arrangements and develop a new Water Supply for the West Waterford Area.

The Councils Assessment of Needs, 2007 – 2016, states:

"Waterford County Council regards the development of a major Regional Water Supply Scheme for the West of the county as its most important water supply strategic objective."

The Department of the Environment have included €2.945m for West Waterford Water Supply Scheme in its 2007 – 2009 Water Services Investment Programme as a Scheme to start in 2008. The Department has already approved the appointment of Consultants to prepare:

- A Strategic Review of Water Supplies in West Waterford.
- A Preliminary Report setting out proposals for new water supply infrastructure in the priority Stage 1 Area.
- The Preliminary Report covering the Stage 1 Area, comprising Lismore, Cappoquin, Ballyduff

and Tallow areas, has recently been completed.

The Report makes recommendations on necessary emergency and augmentation works.

Table 1 - Strategic Water Infrastructure – Regional – County		
Strategic Water Infrastructure	**Project Delivery**	**Zoning Tier**
East Waterford Water Supply Scheme (EWWSS) No infrastructural projects identified. *West Waterford Regional Supply Scheme* *No infrastructural projects identified.*	*East Waterford Water Supply Scheme* Irish Water has undertaken to investigate a possible extension of water supply to Portlaw and Kilmacthomas from EWWSS. *West Waterford Regional Supply Scheme* N/A	All sites subject to connection agreement with Irish Water (in line with existing practice).

National Water Resource Plan:
Irish Water is preparing for the future by developing the National Water Resources Plan (NWRP). The strategic plan for water services will outline how we move towards a sustainable, secure and reliable public drinking water supply over the next 25 years, whilst safeguarding our environment.

The NWRP will outline how Irish Water intends to maintain the balance between our supply from water sources around the country and demand for drinking water over the short, medium, and long-term. This will allow preparation for the future and ensure the provision of sufficient safe, clean drinking water to facilitate the social and economic growth of our country.

A three-pillar approach will be used in the NWRP:
1. Lose Less- leakage reduction and network efficiency
2. Use Less- water conservation measures
3. Supply smarter – sustainable supplies

Following public consultation, the NWRP Framework Plan was adopted in Spring 2021. The next stage of the NWRP is now underway which will involve the development of four regional water resources plans which will identify plan-level approaches to address the identified need in a sustainable manner. Consultation on the regional plans will commence later in 2021.

In addition, the Full Options Assessment stage (FOA) of the NWRP for the Waterford water resource zones has been progressing, in consultation with the water services department of Waterford Council, and is due to be finalised in Q3 2021.

Water treatment/source capacity:
There are 48no. water resource zones (WRZ) in Waterford County. The largest water resource zone is the East Waterford WRZ and serves Waterford city and Tramore as well as a large rural hinterland and several villages. The Dungarvan WRZ serves Dungarvan town, as well as some smaller villages and rural hinterland. The water resource zones serving Waterford city, Tramore, Dungarvan, Dunmore East and Lismore are all envisaged to have capacity to cater for the proposed population targets in the Draft County Development Plan. There is currently limited capacity in the Portlaw WRZ, which is being reviewed through the NWRP.

Irish Water has a project at concept design stage to provide a new water treatment plant and new reservoir for Dungarvan.

In addition, for Water Resource Zones with constraints or deficits in water capacity, the NWRP is progressing through the Full Options Assessment (FOA) stage, with preferred approaches to address constraints for numerous schemes anticipated to be available in Q3 2021.

Water Networks:
Tramore: Irish Water has a project at design stage which includes for the upgrade of sections of the network to increase supply from Ballydrislane Reservoir.

In addition, mains rehabilitation works are planned for sections of the Dungarvan networks, and ongoing leakage reduction measures are being implemented in Lismore.

Irish Water and Waterford City and County Council are continually progressing leakage reduction activities, mains rehabilitation activities and capital maintenance activities in various settlements in Waterford. Irish Water and the Council will continue to monitor the performance of the networks to ensure that the most urgent works are prioritised as required

2.3 Strategic Wastewater Infrastructure – Regional/ County

Waterford City and County is served by 77 Sewerage Schemes ranging from septic tanks serving one or two houses to large Secondary Treatment Plants serving 45,000 people.

There are three plants with population equivalents greater than 10,000 as follows:

Dungarvan Waste Water Treatment Plant

Dungarvan Waste Water Treatment Plant is located in Ballinacourty on the site of the old Quigley Magnesite plant.

The plant `was commissioned in 2007, and has a design capacity of 25,000 p.e. (population equivalent). This plant is a DBO (Design Build and Operate) venture, and is operated for a twenty year period by ABV Consortium.

Tramore Waste Water Treatment Plant

Tramore Water Treatment Plant was constructed on a greenfield site in Corbally Upper in Tramore. The plant was commissioned in 2008, and has a design capacity of 20,000p.e This plant is a DBO (Design Build and Operate) venture, and is operated for a twenty year period by ABV Consortium.

Waterford City Waste Water Treatment Plant

Waterford City's new Waste Water Treatment Plant at Gorteens, Belview, Co. Kilkenny was commissioned in July 2010.

The Treatment Plant is part of the Waterford Main Drainage Scheme and will cater for the needs of Waterford City and the Environs of South Kilkenny. The design is based on a population equivalent of 190,000.

The Wastewater Treatment Plant was procured under a "Design, Build and Operate Contract" undertaken by Anglian Water International. The Wastewater Treatment Plant is to be operated and maintained by Anglian Water International for a 20 year period.

The main benefits of the new biological treatment plant are:

- Compliance with EU Directives, Irish Regulations and the Urban Waste Water Regulations
- Elimination of existing discharges of untreated waste water to the River Suir and an improvement in the rivers water quality.
- Sludge generated in the plant is treated to the standards suitable for recycling to agricultural lands.
- Provision of a waste water treatment plant to cater for the population increase to 2025.
- Infrastructure to allow development to proceed in the City and environs in a sustainable manner.
- Waterford City Waste Water Treatment Plant is operated under a Waste Water Discharge Licence (Reg. Number D0022-01) issued by the EPA on 6th January 2010.

Other Waste Water Treatment Plants

There are a further 2 plants serving c.1,800 p.e., one serving c.900 p.e. and the remaining 11 plants serving populations in the range of 25 to 400 people across Waterford County. There are 9 schemes that utilise Integrated Constructed Wetlands as the treatment system and these range in size from 6 p.e up to 250 p.e. There are 49 sewerage schemes that have septic tanks as primary treatment.

The Waterford Grouped Towns & Villages Sewerage Scheme provides for new wastewater treatment plants and upgraded foul and stormwater collection systems in Ardmore, Ballyduff/Kilmeaden, Cappoquin, Dunmore East, Kilmacthomas, Stradbally and Tallow. This insures

the sustainable development of the settlements in compliance with the Urban Wastewater Treatment Regulations. The design of the schemes will ensure that adequate wastewater treatment capacity will be available for a design horizon year of 2031. Many of these Sewerage Schemes also utilise pump stations to transfer the wastewater to the treatment systems. Waterford City & County Council currently operates 46 pump stations but this number will increase over the next few years as newer residential developments are taken in charge. These pump stations range in age from 40 years or older to only 3-4 years old where sewerage schemes have been recently upgraded. Waterford City and County Council is also progressing a programme of upgrades to all pump stations to incorporate anti-ragging systems which will improve operational efficiencies, reduce maintenance and prolong the life of the pumps.

With the introduction of the Waste Water Discharge Authorisation (WWDA) Regulations in 2007, our Sewerage Schemes were required to be regulated with a full WWDA Licence or with a Certificate of Authorisation. To date, Waterford City & County Council have applied for 11 WWDA Licence and 10 of these have been issued by the EPA. It is expected that the remaining 1 licences will be issued in 2013. The Council also has 19 received Certificates of Authorisation from the EPA to date with a further 10 to be issued. The remaining 36 sewerage schemes are for small septic tanks for council housing with 1-4 houses being served. These septic tanks were registered under the Domestic Wastewater Treatment Systems registration process in September 2012. All licences and Certificates transferred to Irish Water in 2014.

Un-zoned Settlements and Waste Water Treatment

In general, water supply and waste water facilities need to be improved throughout the City and County, particularly in Class 4A – Class 5 settlements as set out in the Settlement Hierarchy in Chapter 2 of the Development Plan, and to accommodate both plan and infrastructure-led growth. In the absence of investment by Irish Water, alternative developer-provided infrastructure, in collaboration with the Local Authority or otherwise, may be required.

In the event that alternative, developer provided infrastructure may be regarded as an appropriate solution to individual specific proposals or circumstances, it should be noted that nature-based solutions, which combine an explicit ecosystem/ integrated catchment based approach, would be the Council's preference, such as constructed wetlands (CWs) and integrated constructed wetlands (ICWs) please refer to **Policy Objective UTL 06**.

CWs and ICWs can also be utilised as part of a combination/ hybrid of measures for wastewater treatment, e.g. complementing existing mechanical treatment plants by providing a tertiary

treatment step for effluents from mechanical units. Sites in catchment areas of water bodies with sensitivity towards eutrophication could utilise hybrid systems for zero discharge, whilst sites with very restricted space could employ tertiary CWs with storm management. This would increase compliance with environmental standards set by the Water Framework Directive (WFD) and associated legislation, e.g. the Bathing Water Directive.

Waterford City and County Council will work closely with Irish Water to identify the water services required to support development which aligns with the Council's Core and Settlement Strategies, and both the NPF and the RSES, and to ensure that the provision of water/ wastewater services will not be a limiting factor in terms of sustainable growth and development.

Table 2 - Strategic Wastewater Infrastructure – Regional		
Strategic Wastewater Infrastructure	**Project Delivery**	**Zoning Tier**
Belview Wastewater Treatment Plant Irish Water has committed to carrying out a review of capacity of the Belview WWTP with regards to treating waste water from commercial and domestic sources.	*Belview Wastewater Treatment Plant* Review will be carried out in the short to medium term (Source: Irish Water).	All sites subject to connection agreement with Irish Water (in line with existing practice).

Drainage Area Plans

There are a number of existing constraints in the sewer network across the City and County. Irish Water are currently preparing Drainage Area Plans for Waterford City, Dungarvan Town and Tramore Town catchments. The Drainage Area Plans will model the existing sewer network, and future scenarios, and develop solutions and a programme of works to overcome identified constraints and provide network improvements.

Upon completion of the Drainage Area Plans, Irish Water and Waterford City and County Council will be able to identify areas where repair or upgrade work is required in addition to opportunities for developing Blue Green Infrastructure solutions. Furthermore, the studies will support Irish Water in effectively planning future investment in the wastewater treatment network so that maximum value for money can be achieved while also protecting the environment, preventing sewer flooding and facilitating future population and economic growth. The funding and delivery of identified projects in the studies will be dependent upon inclusion in the Irish Water Capital Investment Programme (current programme covers the period 2020 to 2024), or the subsequent update of same. Alternatively, there is the possibility for identified projects to be developer-led or for WCCC to seek other funding streams to deliver the required infrastructure in a timely manner.

2.4 Strategic Transport Infrastructure

There are a number of transport projects of strategic importance, which will improve public transport provision across the City and County, and support ongoing sustainable growth focussed on the integration of land use and transportation. The following projects are of particular importance in the content of the strategic growth areas identified in the Core Strategy.

Table 3 - Strategic Transport Infrastructure – Regional/County		
Strategic Transport Infrastructure	**Project Delivery**	**Zoning Tier**
BusConnects Waterford • BusConnects Waterford aims to overhaul the current bus system in Waterford City through a 10-year programme of integrated actions to deliver a more efficient, reliable and better bus system. BusConnects includes: • Redesign of the bus network with high frequency spines, orbital routes and increased bus services. • New cycle network. • New ticketing and cashless payment system. • New bus stops and shelters with better signage and information. • Bus-based park and rides in strategic locations. • New bus livery and transitioning to a new bus fleet with low emission vehicle technologies. *Rail* • Enhanced Commuter/ freight Rail Network infrastructure and service frequency. *Airport* • Runway extension and ancillary development to facilitate use of the airport by larger aircraft. *Port* • Improved access to Waterford Port.	*Bus Connects* • Public consultation stage. • The NDP commits to the delivery of the full BusConnects programme during the period to 2027. • Estimated cost of €TBC (source: NTA) *Rail* • The Strategic Rail Review/ Irish Rail (CIE)/ MASP Implementation. *Airport* • Waterford Airport/ MASP Implementation. *Port* • Waterford Port Company/ MASP Implementation. WCCC will collaborate with the primary stakeholders above in delivery of necessary infrastructure in support of population targets for the NPF, RSES and the development plan.	Subject to assessment on a site-by-site basis.

3.0 Metropolitan Area Strategic Plan (MASP)

The settlement strategy for the development plan is based upon the key principles of the NPF and RSES and corresponds with the strategic development for the Waterford MASP Area. There is broad alignment between the strategic growth areas identified in the MASP and the growth areas identified in the development plan. A key aim of the MASP is to unlock the development capacity of strategic development areas within the wider metropolitan area, particularly north of the River Suir and developing the concentric city modal, by identifying the sequencing of enabling infrastructure. The MASP is aligned with the National Development Plan to ensure that it can inform national-level sectoral investment plans and co-ordinate investment within the metropolitan area. The MASP thus provides the planning policy framework, which is interlinked with the requisite capital investment programmes, to ensure the co-ordination of strategic growth areas through the delivery of supporting infrastructure. The following table sets out the strategic development areas identified for the Waterford MASP, the enabling infrastructure and phasing timeframe.

Table 4 – MASP Strategic Infrastructure

Area	**Phasing / Enabling Infrastructure**
• North Quays Innovation District, Waterford SDZ. • Kilbarry with a potential for new housing units in line with the Core Strategy. • Gracedieu/ Carrickpherish with a potential for new housing units in line with the Core Strategy. • Development of lands zoned for residential development in Ferrybank. • Bilberry (former Waterford Stanley Site). • St. John's and St. Otteran's Hospitals. • Former Waterford Crystal Site (Student accommodation) for new housing units in line with the Core Strategy. • Regeneration sites as highlighted in Chapter 3 and Appendix 17 of	• Support the delivery of the North Quays SDZ regeneration project for integrated sustainable development through the provision of supporting transport infrastructure and services • Improved cross-city connectivity between the City/ environs (south of the River Suir) and the North Quays SDZ/ Ferrybank area; • Abbey Link Road to Belmont Link Road – Ferrybank - to support development of lands to the north of the river for consolidation and expansion; • Enhanced accessibility to the City Centre and key destinations such as WIT & Waterford University Hospital, from within the City/Environs area, and nearby towns, including Tramore; • Relocation of Waterford Plunkett Rail Station to the North Quays and the development of Transport Hub. **Delivery timeframe:** short to medium term. • Concentric city required infrastructure, Knockhouse Road proposal and Bilberry Road upgrade, Outer Orbital Road, Third and Fourth River Crossing at the Tower Hotel and Maypark. **Delivery timeframe: M**edium term to long term. • Specific infrastructural requirements for individual sites are

the development plan. • Associated enabling infrastructure for Employment Areas.	unknown until DAPs are complete. • Below are listed the areas that need urgent attention with Waterford City area: ◦ Upgarde to Capacity of the public waste water network with regards to the Avondale Sewer. ◦ Upgrade of the sewer network is required to service lands south of Greenfields/Fairfield. **Employment Enabling Infrastructure** ◦ Key Enablers for Waterford MSAP in Chapter 3. ◦ Specific transport and utility policy objectives in Chapter 5, 6 and Appendix 2 of the development plan.

4.0 Area Specific Infrastructure Constraints

This section details infrastructure constraints as they relate to specific zoned settlements within the County and identifies infrastructure projects that are considered to be of strategic importance for the delivery of residential zoned lands in the said settlements. As stated above this section should be read in conjunction with Appendix 17 and the below tables are intended to inform but are not intended to be relied upon for development management purposes. The tables demonstrate that lands identified in the Core Strategy for residential development are either serviced or have the potential to be serviced within the lifetime of the Plan. The full extent of requisite enabling infrastructure with regard to specific sites will continue to be assessed through the development management process.

4.1 Dungarvan and Ballinroad Infrastructure Delivery

Dungarvan Town is identified as a Key Town in the settlement strategy of the development plan. This designation is supported by the RSES and the Development Plan Core Strategy.

Appendix 17 Table 5 highlights 8 No. new residential development sites proposed for Dungarvan Town. All sites highlighted are currently serviced and are classed as Tier 1. However there is a water capacity issue in Dungarvan and the future residential and commercial development of the town is contingent upon the timely delivery of supporting infrastructure. The table below highlights infrastructural deficits for the town.

Table 5 – Dungarvan and Ballinroad Infrastructure Requirements		
Infrastructure	**Project Delivery**	**Zoning Tier**
Water and Waste Water • The capacity of the public waste water treatment plant is an issue during peak season. The plant currently has a limited space capacity of circa. 6,500 PE. • Increased pump capacity at Southways can help service Monang Road. • Mongang and part of the Shandon area are readily serviceable. • Ground water infiltration into network at the spring roundabout is an issue. • Services in Abbeyside are good and gravity sewer by St. Augustine's can service Duckspool area and land north of N25. • Water network is generally good Storage capacity is limited however Irish Water plan to upgrade storage and treatment plant which should be completed within 5. GSK has additional private supply. • Water mains undersized on Ballinacourty line. *Transport* • Dungarvan will be subject to an LAP following completion of the CCDP. The LAP will be accompanied by a Local Transport Plan, focused on improving active and public transport and highlight infrastructural deficits for the town. • Monang Road Reservation; Firestation Road/ Parknagappul Road/ Ballymuck Road/ Kilrish Road upgrade.	*Water and Waste Water* • Irish Water are progressing the Dungarvan DAP. • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. *Transport* • WCCC to publish LTP and budgetary programme of investment for transport for Dungarvan and Ballinroad. The LTP will inform the Local Area Plan for Dungarvan/ Ballinroad. • LTP will require agreement and cooperation between the relevant agencies. In the case of some local authority schemes, these are likely to be managed with the NTA under the Sustainable Transport Measures Grants Programme, and TII under government funding allocations with regard to national road schemes. All schemes would also be funded in part by development contribution levies. • Road infrastructure to be funded in part through development contributions collected under the provisions of the WCCC Development Contribution Scheme.	

4.2 Tramore Infrastructure Delivery

Tramore is identified as a Large Urban Town in the settlement strategy of the development plan. This designation is supported by the Waterford MASP and the Development Plan Core Strategy which identifies Tramore strategic development corridor. Appendix 17 Table 6 highlights 7 No. new residential development sites proposed for Tramore Town. All sites highlighted are currently serviced and are classed as Tier 1. The table below highlights infrastructural deficits for the town.

Table 6 – Tramore Infrastructure Requirements		
Infrastructure	**Project Delivery**	**Zoning Tier**
Water and Waste Water • Major network capacity issues to all pumping stations. • Upgrade pipe size at Monvoy along Glen Road (225/300mm pipe to 450mm pipe) and 3No. additional pumps required at An Garraun. • Upgrade of line on Cliff Road due to combined sewer and missed connections. • WWTP at capacity 6 months of year due to PE and combined storm flows with overflow into back strand. • Space for additional scarrifiers and settling ponds at WWTP. • Infiltration of surface/ground water into the network. • Water Network has a distribution issues esp. north of RC Church and Ring Road served from Sporthouse with history of breakages on this 10" main. Developer led solutions addressing this distribution on agreement of IW. Increase capacity at Sporthouse by 69% (current 5k PE) plus new 10 inch main. Alternative to facilitate pressurised water from Ballydrislane (Racecourse) with new 10k m3 reservoir to service elevated lands and avoid disruption to Bulterstown area by way of Sporthouse works. *Transport* • Tramore will be subject to an LAP following completion of the CCDP. The LAP will be accompanied by a Local Transport Plan, focused on improving active and public transport and highlight infrastructural deficits for the town. • Upgrade of the Glen Road.	*Water and Waste Water* • Irish Water are progressing the Tramore DAP. • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. *Transport* • WCCC to publish LTP and budgetary programme of investment for transport for Tramore. The LTP will inform the Local Area Plan for Tramore. • LTP will require agreement and cooperation between the relevant agencies. In the case of some local authority schemes, these are likely to be managed with the NTA under the Sustainable Transport Measures Grants Programme, and TII under government funding allocations with regard to national road schemes. All schemes would also be funded in part by development contribution levies. • Road infrastructure to be funded in part through development contributions collected under the provisions of the WCCC Development Contribution Scheme.	Tier 1 and Tier 2 - as applicable at a local level.

4.3 Dunmore Infrastructure Delivery

Dunmore is identified as a Large Town in the settlement strategy of the development plan. This designation is supported by the Development Plan Core Strategy which identifies Dunmore East strategic development corridor. Appendix 17 Table 7 highlights 4 No. new residential development sites proposed for Dunmore East. All sites highlighted are currently serviced and are classed as Tier 1. The table below highlights infrastructural deficits for the town.

Table 7 – Dunmore Infrastructure Requirements

Infrastructure	**Project Delivery**	**Zoning Tier**
Water and Waste Water • Water Network Reservoir capacity only 6 hr and not 24 hr as would generally be required, water pressure poor in Killea and Coxtown as a result. *Transport* • Dunmore will be subject to an LAP following completion of the CCDP. The LAP will be accompanied by a Local Transport Plan, focused on improving active and public transport and highlight infrastructural deficits for the town. • Proposed Killea (Link) Road and Killea Road upgrade and the Waterford – Dunmore Road upgrade. • Off-street car parking in the lower village (Horse Quarter).	*Water and Waste Water* • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. *Transport* • WCCC to publish LTP and budgetary programme of investment for transport for Dunmore East. The LTP will inform the Local Area Plan for Dunmore East. • LTP will require agreement and cooperation between the relevant agencies. In the case of some local authority schemes, these are likely to be managed with the NTA under the Sustainable Transport Measures Grants Programme, and TII under government funding allocations with regard to national road schemes. All schemes would also be funded in part by development contribution levies. • Road infrastructure to be funded in part through development contributions collected under the provisions of the WCCC Development Contribution Scheme.	Tier 1 as applicable at a local level.

4.4 Portlaw Infrastructure Delivery

Portlaw is identified as a Large Town in the settlement strategy of the development plan. Appendix 17 Table 8 highlights 3 No. new residential development sites proposed for Portlaw. None of the site fall within Tier 1 and are therefore are classed Tier 2 as there is a water supply/ capacity issue in village and the future development of the area is contingent upon the timely delivery of supporting infrastructure. The table below highlights infrastructural deficits for the town.

Table 8 – Portlaw Infrastructure Requirements

Infrastructure	Project Delivery	Zoning Tier
Water • Local groundwater source with no capacity for servicing across the town which results in an inconsistent water quality. A new connection to EWWSS is needed. *Transport* • Portlaw will be subject to an LAP following completion of the CCDP. The LAP will be accompanied by a Local Transport Plan, focused on improving active and public transport and highlight infrastructural deficits for the town.	*Water* • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. • Irish Water has undertaken to investigate a possible extension of water supply to Portlaw from EWWSS. • Small scale residential can be supported during the life time of the development plan. *Transport* • WCCC to publish LTP and budgetary programme of investment for transport for Portlaw. • LTP will require agreement and cooperation between the relevant agencies. In the case of some local authority schemes, these are likely to be managed with the NTA under the Sustainable Transport Measures Grants Programme, and TII under government funding allocations with regard to national road schemes. All schemes would also be funded in part by development contribution levies.	Tier 2[1] as applicable at a local level.

[1] Small scale residential development may be feasible without upgrade to the IW water supply network.

4.5 Lismore Infrastructure Delivery

Lismore is identified as a Large Town in the settlement strategy of the development plan. Appendix 17 Table 9 highlights 2 No. new residential development sites proposed for Lismore. All sites highlighted are currently serviced and are classed as Tier 1. The table below highlights infrastructural deficits for the town.

Table 9 – Lismore Infrastructure Requirements

Infrastructure	**Project Delivery**	**Zoning Tier**
Water and Waste Water • Water storage capacity is low with high leakage locally. *Transport* • Portlaw will be subject to an LAP following completion of the CCDP. The LAP will be accompanied by a Local Transport Plan, focused on improving active and public transport and highlight infrastructural deficits for the town. • Proposed road Reservation linking Mayfield with Deerpark Road, and Station Road with the Tallow Road.	*Water and Waste Water* • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. *Transport* • WCCC to publish LTP and budgetary programme of investment for transport for Portlaw. • LTP will require agreement and cooperation between the relevant agencies. In the case of some local authority schemes, these are likely to be managed with the NTA under the Sustainable Transport Measures Grants Programme, and TII under government funding allocations with regard to national road schemes. All schemes would also be funded in part by development contribution levies. • Road infrastructure to be funded in part through development contributions collected under the provisions of the WCCC Development Contribution Scheme.	Tier 1 as applicable at a local level.

4.6 Gaeltacht na nDéise

Gaeltacht na nDéise is identified as a Small Rural Town in the settlement strategy of the development plan. This designation is supported by the Development Plan Core Strategy which identifies Gaeltacht na n Déise strategic development corridor. Appendix 17 Table 10 highlights 2 No. new residential development sites proposed for Lismore. All sites highlighted are currently serviced and are classed as Tier 1. The table below highlights infrastructural deficits for the town.

Table 10 – Gaeltacht na nDéise Infrastructure Requirements		
Infrastructure	**Project Delivery**	**Zoning Tier**
Water and Waste Water No issues raised.	*Water and Waste Water* • Irish Water are progressing Dungarvan DAP – which includes Gaeltacht na nDéise.	Tier 1 as applicable at a local level.

4.7 Clonmel Environs Infrastructure Delivery

Clonmel Environs is identified as a Key Town in the settlement strategy of the development plan. Appendix 17 Table 11 highlights the 1 No. new residential development sites proposed for Clonmel Environs. All sites highlighted are currently serviced and are classed as Tier 1.

4.8 Community Infrastructure

The term 'community infrastructure' covers a broad range of infrastructure and service provision to meet the needs of residents. The NPF tiered approach to zoning does not focus on the community infrastructure element but it is considered of importance in creating sustainable neighbourhoods. The emphasis under section 10(2)(l) of the Planning and Development Act 2000 (as amended) is on the provision of educational and childcare facilities. In consultation with the Department of Education and Skills the County Development Plan facilitates the provision of sufficient land to meet the need for new schools and/or expansion of existing schools, in line with the requirements of anticipated population growth.

Appendix 15
Settlement Local Service Inventory

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Council Draft Development Plan 2022 - 2028

Appendix 15

Settlement Local Service Inventory

	Settlement	Church	School	Comm. Hall/ Centre	Health Centre	Pub	Shop	Post Office	Sports facil./ Fields	Play grnd	Garda Stn	Bank/ Cr. U/ Atm	Fire Stn	Other
1	Waterford City & Suburbs	√	√	√	√	√	√	√	√	√	√	√	√	Well served
2	Dungarvan/ Ballinroad[1]	√	√	√	√	√	√	√	√	√	√	√	√	Well served
3	Clonmel Environs													Well served
4	Tramore	√	√	√	√	√	√	√	√	√	√	√	√	Well served
5	Dunmore East	√	√	√	√	√	√	√	√	√	√ (P/T)	√	√	DE Fishery Harbour Centre; RNLI Lifeboat Stn;
6	Portlaw	√	√	√	√	√	√	√	√		√	√[2]	√	Community Resource Hub; Agora Publishing
7	Lismore	√	√	√	√	√	√	√	√	√	√	√	√	Lismore Castle; TQS; Lismore Food Co.; Writers Festival
8	Tallow	√	√	√	√	√	√	√	√		√	√	√	Goalpost Ireland; Meadowfresh Foods; Convent; Blackwater Economic Cluster (funding – Enterprise Hub)
9	Kilmacthomas	√	√	√	√	√	√	√	√		√	√	√	Flahavans; Greenway & Coach House; St Declans Community College (new 2y school for catchment?); new Distillery
10	Passage East/ Crooke	√	√	√					√	√	√			Ferry; harbour
11	Cappoquin	√	√	√	√	√	√	√	√		√	√		Boathouse/ rowing club; Cappoquin Logistics;
12	Stradbally	√	√	√		√			√	√		√		Tidy Towns (silver); farmers market; Woodhouse
13	Ardmore	√	√	√	√	√	√	√	√		√		√	Cliff House Hotel; mobile homes holiday site; St Declans; art/ craft; harbour
14	Gaeltacht na nDéise (inc Sean Phobal)	√ √	√ √	√ √	√	√ √	√	√	√ √	√	√			RNLI Lifeboat Stn; Harbour; Nemeton TV; Waterford Oysters; An Rinn Colaiste Old Parish allotments near GAA pitch
15	Kilmeaden/ Ballyduff Lower (east)[3]	√	√	√	√	√	√	√	√	√	√	√[4]		Waterford Suir Valley Railway; Mount Congreve; Old Kilmeaden Cheese site
16	Cheekpoint/ Faithlegg[5]	√	√				√	?	√	√				Faithlegg House Hotel; pier
17	Dunhill	√	√	√		√	√		√					Dunhill Enterprise Centre; Anne Valley ICW and walk
18	Kill	√	√	√		√	√		√					Ballinlough Garden Centre
19	Aglish	√	√	√		√	√	√	√		√			Local services
20	Villierstown	√	√	√		√	√	√						Boating Club & boathouse; Dromana
21	Clashmore	√	√	√	√	√	√		√	√	√			Local services
22	Lemybrien/ Kilrossanty[6]	√	√	√		√	√		√			√[7]		Crough Woods (Mahon Bridge)

[1] Lack of public open space/ playground at Ballinroad; footpath to National School
[2] Centra Bank link
[3] Facilities/ services shared/split between Kilmeaden & Ballyduff Lower
[4] Centra Bank link
[5] Facilities/ services shared/ split between Cheekpoint/ Faithlegg
[6] Facilities/ services shared/ split between Lemybrien/ Kilrossanty
[7] Applegreen BoI Bank link

	Settlement	Church	School	Comm. Hall/ Centre	Health Centre	Pub	Shop	Post Office	Sports facilities/ Fields	Play grnd	Garda Stn	Bank/ Cr. U/ Atm	Fire Stn	Other
23	Ballyduff Upper (west)	√	√	√	√	√			√					West Waterford Drama Festival
24	Ballymacarbry		√	√		√	√	√	√		√ (P/T)			Fishing; Nire Valley Eco Camp; Nire Valley Glamping
25	Bonmahon/ Knockmahon	√	√			√			√	√				Coastguard & Lifeboat; Surfing & surf Centre; Copper Coast Visitor Centre & café; Copper coast mobile home holiday park;
26	Clonea Power	√	√	√	√	√			√					Community Development Group works with that of Rathgormack
27	Rathgormack	√	√	√		√	√		√	√	√			Comeragh Wilderness Camp; Comeragh walks (Hiking Centre)
28	Tournaneena	√	√	√				?	√					Local services
29	Annestown	√							√					Anne Valley Walk; beach
30	Ballylaneen	√				√[8]								Cathair Engineering Ltd; Aurelia Foods; St Anne's Holy Well
31	Ballinameela/ Whitechurch	√	√	√					√					Local services
32	Ballymacaw			√		√	√		√					Portally Cove to Ballymacaw coastal walking trail
33	Butlerstown	√	√						√[9]					Local services
34	Faithlegg													Local services
35	Fenor	√	√	√		√			√	√				Coppercoast Mini Farm; Copper Hen Restaurant; Fenor Bog Boardwalk
36	Grange	√	√					√						Local services
37	Kilbrien	√	√	√					√					Comeragh Mountain Poultry
38	Knockanore		√						√					Local services
39	Melleray	√		√ scouts										Melleray Monastery; Mount Melleray Scouting & Adventure Centre
40	Modeligo	√	√	√		√			√					Local services
41	Piltown (Kinsalebeg)	√	√	√			√		√					Local services

[8] This is currently closed
[9] The Butlerstown GAA fields are situated at Holy Cross

Appendix 16
Implementation and Monitoring

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Draft Development Plan 2022 - 2028

Appendix 16: Implementation and Monitoring

16.1 Introduction

The implementation and delivery of the Waterford City and County Development Plan 2022-2028 is a key objective of the Council. The establishment of a performance management system is important to better understand whether, and to what extent, the Policy Objectives of the City and County Development Plan are being realised.

The Waterford City and County Development Plan 2022-2028 introduces a formalised approach to Plan implementation, monitoring and evaluation, which provides a framework for measuring the outcomes of the Policy Objectives of the Plan. The framework seeks to move beyond assessment of the planning system from a primarily procedural and administrative perspective to a richer form of planning performance which incorporates planning outcome monitoring and evaluation across a range of more strategic objectives.

16.2 Implementation and Monitoring

The implementation of the Development Plan is a key strategic focus for Waterford City and County Council and requires a concerted range of actions by the entire organisation in order to be successfully implemented. The Council will need to utilise its wide range of statutory powers and responsibilities to achieve the objectives of the development plan. While ensuring that decisions on proposals for new development are consistent with the development plan through the development management system is critical, the Council also has a wide range of functions in housing, transport, development of amenities, economic development, infrastructural delivery and community involvement that can enable it to implement the development plan in practice.

The implementation and monitoring framework (Table 16.1) sets out the key measurable Policy Objectives within the Development Plan in terms of their contribution towards the achievement of the overall 'Vision' for Waterford City and County as set out in Section 1.1 and the strategic outcomes identified in Section 1.6. of the Development Plan. The Implementation and Monitoring Framework has been developed in accordance with the format and requirements of Part 10: Plan Implementation Monitoring and Reporting of the Draft Development Plan Guidelines for Planning Authorities 2021 and the Planning and Development Act 2000, as amended. The Framework identifies 28 measurable elements of the Plan, to be monitored on an annual/two-year cycle.

The Policy Objectives within the Development Plan are wide-ranging and while the implementation and monitoring framework does not comprise a comprehensive list it focuses on the key strategic and measurable Policy Objectives. While every effort has been made to formulate Policy Objectives in the Development Plan that are SMART (Specific, Measurable, Assignable, Realistic and Time-Related) it is acknowledged that not all Policy Objectives are measured in easily identifiable and quantitative values.

Table 16.1 - Implementation and Monitoring Framework

Indicator	
Residential (Annual Monitoring)	
1	New home completions (including through refurbishment/conversions)
2	New home completions per NPO 3
3	Planning permissions granted for residential development with: I. A breakdown of 1, 2 ,3 and 4+ units permitted and II. A breakdown per Tier 1 and Tier 2 lands
4	Breakdown by relevant rural area type of rural housing: I. Planning Applications lodged II. Breakdown in decisions III. New home completions
Commercial (Annual Monitoring)	
5	Developed and occupied commercial floorspace
6	Planning permissions for business/employment uses (m2 of development) for: I. Office II. Industrial III. Retail IV. Warehousing/Logistics
Settlement Consolidation Sites (Annual Monitoring)	
7	Specific reporting on the progression of the Settlement Consolidation Sites identified in the development plan. This shall include information on enabling infrastructural services delivery, planning permissions granted, housing constructed, funding applications made, project timelines, Vacant Site Levy commentary, etc.
Policy Objectives (Two Year Monitoring)	
8	Strategic Environmental Assessment
9	Local Area Planning (inc Local Transport and Surface Water Management planning) (CS 08)
10	Rural Strategy (CS 15)
11	Joint Retail Strategy (W City Retail 08)
12	Wide Open Space and Recreation Strategy (Waterford City) (W City 20)
13	South Quays Design Framework (W City 30)
14	Regeneration and Active Land Management (ECON 6 & 7)
15	Waterford Harbour Integrated Framework Plan (ECON 18)
16	Flagship Tourism Projects (ECON 23)
17	Renewable Energy (UTL 13)
18	Modal Shift Ambitions (Trans 01)
19	PLUTS (Trans 05)
20	Countywide Transport Strategy (Trans 06)
21	Trail Development and Public Rights of Way (BGI 10)
22	Wetland and biodiversity mapping and assessment (BD 12)
23	Tree Audit and Augmentation (BD 25 & 26)
24	County Blue Green Infrastructure Strategy (BGI 03)
25	Heritage Plan Review (Heritage 01)
26	Demesnes Architectural Conservation Areas (BH 19)
27	Thatch Survey Review (BH 25)
28	City Walls Interpretation Strategy (AH 05)

16.3 Plan Evaluation and Reporting

The implementation and monitoring framework is intended to function as a formal feedback loop with the evaluation and reporting processes intended to comprise a key input into the formulation and refinement of future planning policy. In this manner, the framework is intended to serve as an important evidence-based input which will integrate with and inform the review process of subsequent City and County Development Plans. In terms of its formal evaluation role, the framework is intended to assist the Planning Authority in meeting its statutory reporting requirements including:

- The 2 Year Progress Report of the City and County Development Plan (as required under Section 15(2) of The Act).
- Report to the Southern Regional Assembly setting out progress made in supporting objectives of the RSES (as required under Section 25A (1) of The Act).

16.4 Environmental Monitoring

Article 10 of the SEA Directive requires monitoring of the significant environmental effects of the implementation of the City and County Development Plan in order to identify, at an early stage, unforeseen adverse effects and to enable appropriate remedial action to be undertaken. While the monitoring framework set out in Appendix 16 incorporates some monitoring of environment related objectives, the full and comprehensive monitoring and evaluation assessment, required to be undertaken under Article 10 of the SEA Directive, is set out in the Strategic Environmental Assessment that comprises Appendix 19 A & B of the City and County Development Plan.

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16.1 Introduction

The implementation and delivery of the Waterford City and County Development Plan 2022-2028 is a key objective of the Council. The establishment of a performance management system is important to better understand whether, and to what extent, the Policy Objectives of the City and County Development Plan are being realised.

The Waterford City and County Development Plan 2022-2028 introduces a formalised approach to Plan implementation, monitoring and evaluation, which provides a framework for measuring the outcomes of the Policy Objectives of the Plan. The framework seeks to move beyond assessment of the planning system from a primarily procedural and administrative perspective to a richer form of planning performance which incorporates planning outcome monitoring and evaluation across a range of more strategic objectives.

16.2 Implementation and Monitoring

The implementation of the Development Plan is a key strategic focus for Waterford City and County Council and requires a concerted range of actions by the entire organisation in order to be successfully implemented. The Council will need to utilise its wide range of statutory powers and responsibilities to achieve the objectives of the development plan. While ensuring that decisions on proposals for new development are consistent with the development plan through the development management system is critical, the Council also has a wide range of functions in housing, transport, development of amenities, economic development, infrastructural delivery and community involvement that can enable it to implement the development plan in practice.

The implementation and monitoring framework (Table 16.1) sets out the key measurable Policy Objectives within the Development Plan in terms of their contribution towards the achievement of the overall 'Vision' for Waterford City and County as set out in Section 1.1 and the strategic outcomes identified in Section 1.6. of the Development Plan. The Implementation and Monitoring Framework has been developed in accordance with the format and requirements of Part 10: Plan Implementation Monitoring and Reporting of the Draft Development Plan Guidelines for Planning Authorities 2021 and the Planning and Development Act 2000, as amended. The Framework identifies 28 measurable elements of the Plan, to be monitored on an annual/two-year cycle.

The Policy Objectives within the Development Plan are wide-ranging and while the implementation and monitoring framework does not comprise a comprehensive list it focuses on the key strategic and measurable Policy Objectives. While every effort has been made to formulate Policy Objectives in the Development Plan that are SMART (Specific, Measurable, Assignable, Realistic and Time-Related) it is acknowledged that not all Policy Objectives are measured in easily identifiable and quantitative values.

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Table 16.1 - Implementation and Monitoring Framework

Indicator	
Residential (Annual Monitoring)	
1	New home completions (including through refurbishment/conversions)
2	New home completions per NPO 3
3	Planning permissions granted for residential development with: I. A breakdown of 1, 2 ,3 and 4+ units permitted and II. A breakdown per Tier 1 and Tier 2 lands
4	Breakdown by relevant rural area type of rural housing: I. Planning Applications lodged II. Breakdown in decisions III. New home completions
Commercial (Annual Monitoring)	
5	Developed and occupied commercial floorspace
6	Planning permissions for business/employment uses (m2 of development) for: I. Office II. Industrial III. Retail IV. Warehousing/Logistics
Settlement Consolidation Sites (Annual Monitoring)	
7	Specific reporting on the progression of the Settlement Consolidation Sites identified in the development plan. This shall include information on enabling infrastructural services delivery, planning permissions granted, housing constructed, funding applications made, project timelines, Vacant Site Levy commentary, etc.
Policy Objectives (Two Year Monitoring)	
8	Strategic Environmental Assessment
9	Local Area Planning (inc Local Transport and Surface Water Management planning) (CS 08)
10	Rural Strategy (CS 15)
11	Joint Retail Strategy (W City Retail 08)
12	Wide Open Space and Recreation Strategy (Waterford City) (W City 20)
13	South Quays Design Framework (W City 30)
14	Regeneration and Active Land Management (ECON 6 & 7)
15	Waterford Harbour Integrated Framework Plan (ECON 18)
16	Flagship Tourism Projects (ECON 23)
17	Renewable Energy (UTL 13)
18	Modal Shift Ambitions (Trans 01)
19	PLUTS (Trans 05)
20	Countywide Transport Strategy (Trans 06)
21	Trail Development and Public Rights of Way (BGI 10)
22	Wetland and biodiversity mapping and assessment (BD 12)
23	Tree Audit and Augmentation (BD 25 & 26)
24	County Blue Green Infrastructure Strategy (BGI 03)
25	Heritage Plan Review (Heritage 01)
26	Demesnes Architectural Conservation Areas (BH 19)
27	Thatch Survey Review (BH 25)
28	City Walls Interpretation Strategy (AH 05)

16.3 Plan Evaluation and Reporting

The implementation and monitoring framework is intended to function as a formal feedback loop with the evaluation and reporting processes intended to comprise a key input into the formulation and refinement of future planning policy. In this manner, the framework is intended to serve as an important evidence-based input which will integrate with and inform the review process of subsequent City and County Development Plans. In terms of its formal evaluation role, the framework is intended to assist the Planning Authority in meeting its statutory reporting requirements including:

- The 2 Year Progress Report of the City and County Development Plan (as required under Section 15(2) of The Act).
- Report to the Southern Regional Assembly setting out progress made in supporting objectives of the RSES (as required under Section 25A(1) of The Act).

16.4 Environmental Monitoring

Article 10 of the SEA Directive requires monitoring of the significant environmental effects of the implementation of the City and County Development Plan in order to identify, at an early stage, unforeseen adverse effects and to enable appropriate remedial action to be undertaken. While the monitoring framework set out in Appendix 16 incorporates some monitoring of environment related objectives, the full and comprehensive monitoring and evaluation assessment, required to be undertaken under Article 10 of the SEA Directive, is set out in the Strategic Environmental Assessment that comprises Appendix 19 A & B of the City and County Development Plan.

Appendix 17
Tiered Approach to Zoning

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Waterford City and County Council Draft Development Plan 2022 - 2028

APPENDIX 17 – Tiered Approach to Zoning

1.0 Purpose of the Appendix No. 17

This Serviced Land Assessment has been prepared in accordance with the methodology provided in the NPF to determine a residential zoning framework and to support sustainable growth and development over the lifetime of the Plan for the following zoned settlements within the County:

- Waterford City,
- Dungarvan/Ballinroad,
- Clonmel Environs,
- Tramore,
- Dunmore East,
- Lismore,
- Portlaw; and
- Gaeltacht na nDéise

The report should be read in conjunction with Appendix No. 14 Infrastructure Capacity

2.0 Policy Context

The NPF has provided a framework to promote the principles of compact sustainable growth and to seek to ensure effective linkages between the zoning of land and the availability of infrastructure. A standardised methodology to zoning is provided in Appendix 3 of the NPF and key national policy provisions are outlined below:

- **Tiered Approach to Assessment**

  National Planning Objective 72(a) requires local authorities to apply a standardised approach to zoning, to identify lands that are serviced (Tier 1) and land that are serviceable within the lifetime of the plan (Tier 2). Where lands do not fall within Tier 1 or Tier 2, they may not be zoned for development. National Policy Objective 72(b) also requires local authorities when considering the zoning of land to identify infrastructural requirements and where appropriate to provide a delivery strategy and cost estimate.

- **Sequential Approach and Sustainable Development**

  The NPF recognises that the availability of physical infrastructure should not be the sole determinant of the zoning of land. In relation to the prioritising of development lands, Section 10.2 of the NPF states that *'there are many other planning considerations relevant to land zoning beyond the provision of basic enabling infrastructure including overall planned levels of growth, location, suitability for the type of development envisaged, availability of and proximity to amenities, schools, shops or employment, accessibility to transport services etc.Weighing up all of these factors, together with the availability of infrastructure, will assist planning authorities in determining an order of priority to deliver planned growth and development'*

3.0 Methodology

Each zoned settlement is assessed below with regards to site identification, site assessment, land-use framework and infrastructure delivery. A more detailed analysis of infrastructure capacity is provided in Appendix 14. The table for each zoned settlement represents the final short list of sites arising from a broader site assessment and all residential zoned lands set out in the Development Plan. The Serviced Land and Infrastructure Assessment has been developed having regard to the policy provisions set out above and the standardised methodology provided in Appendix 3 ofthe NPF.

Population Growth

Chapter 2 of the draft Development Plan has provided for a sustainable population growth rate for the zoned settlements. This is also outlined in Table 1 below. This provided a baseline figure to meet in identifying land suitable for development for residential purposes.

Settlement	2016 Population	2028 Population	% Uplift	Land is required to meet the anticipated population (+ headroom)
Waterford City & Suburbs	48,216	62,382	23	90.6
Dungarvan/Ballinroad	10,388	11,864	12	11
Tramore	10,381	11,549	12	8.7
Dunmore East	1,808	2,002	10	1.7
Portlaw	1,742	1,929	10	1.7
Lismore	1,374	1,521	10	1.3
An Rinn	499	583	14	1
Clonmel Environs	925	1,056	12	1

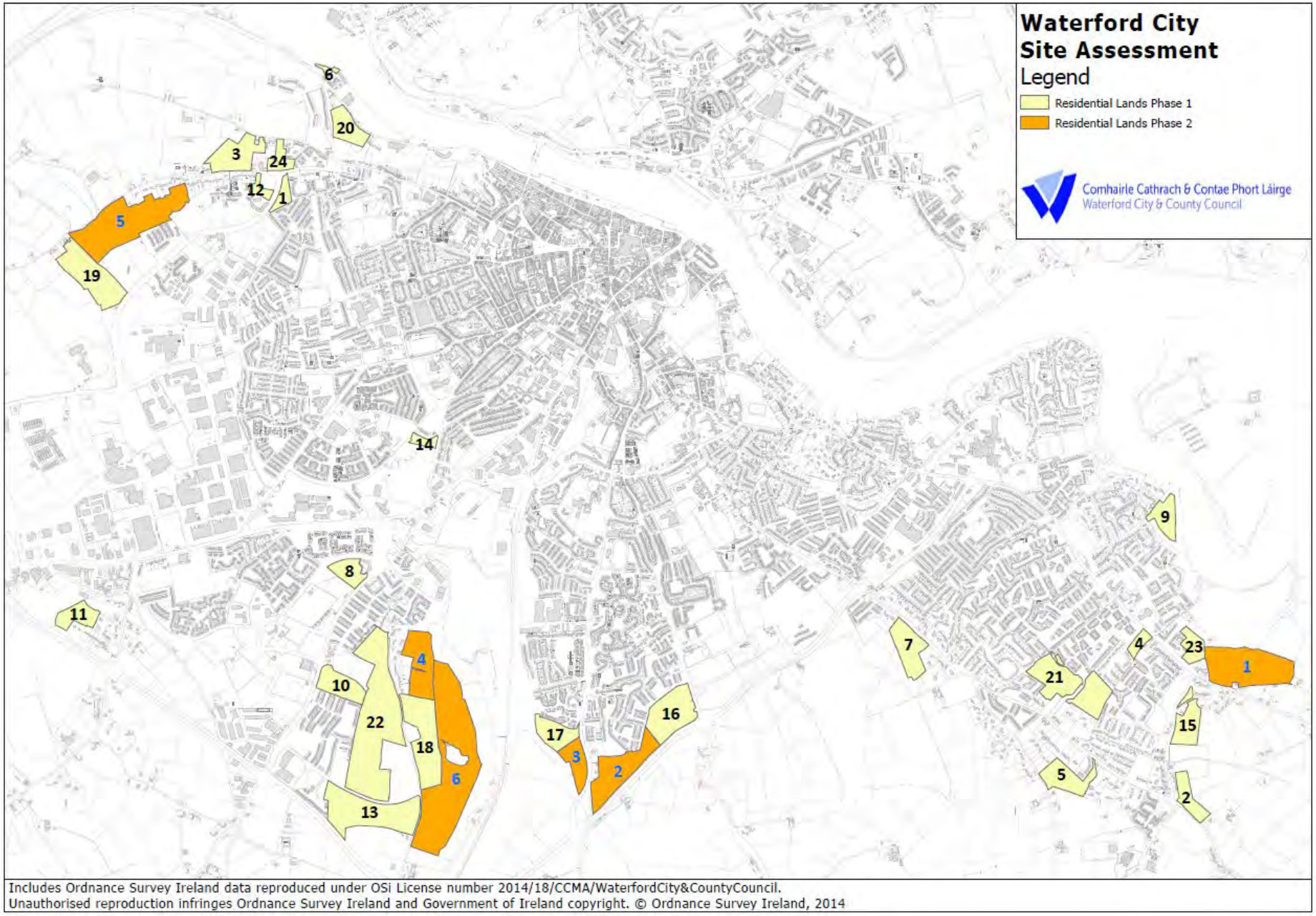
TABLE 1 - POPULATION UPLIFT AND ZONED RESIDENTIAL LAND REQUIREMENT

We have provided a map and table of each zoned settlement which identifies each site and provides an assessment for each selected parcel of land.

4.0 Waterford City Site Identification

- The existing Waterford City Development Plan 2013 - 2019 included. c.254 ha of zoned land for residential purposes. 59 ha have been developed over the lifetime of the Plan.
- All lands currently identified within the existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 30 sites (24 phase 1 and 6 phase 2 site) were identified for further examination as illustrated in Figure 1 below.

FIGURE 1: WATERFORD CITY SITE ASSESSMENT



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4.1 Waterford City Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 2 and 3 provide a summary of the evaluation process which applies to Waterford City and to all zoned settlements in the County. Table 4A provides an explanation of the weighting/scoring description of infrastructure availability in Waterford for Phase 1 lands and Table 4B provides the same explanation for Phase 2 lands. It should be noted that the overriding infrastructural consideration and constraint for Waterford City are as follows:

- Capacity of the public waste water network with regards to the Avondale Sewer.
- Development of lands on outer ring road at Williamstown will put further pressure on network.
- A significant upgrade of the sewer network is required to service lands south of Greenfields/Fairfield.

Score	Infrastructure Requirements
1	Existing infrastructure can support the development of the site, subject to on site works, some minor works at access points or linking into available existingsystems.
2	Some off-site works are required but could be delivered as part of a planning application to develop the site or capital investment is identified to facilitate development over the course of the plan.
0	The land could not reasonably be serviced over the course of the plan and capital investment works have not been identified to meet the infrastructural need to develop the site over the course of the plan. These sites are discounted, and no further assessment is made.

TABLE 2 INFRASTRUCTURE CAPACITY

Characteristic	Description
Compact Growth	Proximity to the town centre and services – distance of no more than 1km or 5 min walk from the town and neighbourhood centre is desirable
Public Transport	Whether public transport modes are available within proximity of the site or connected walking & cycle routes provide easy access to public transport and services
Co-Ordinated Development	That the development of the land will contribute to or complete the strategic development of the wider area

TABLE 3: PLANNING ASSESSMENT CRITERIA

Ref:	Site Name	Phase	Area(ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Ballynamona (WCCC)	1	1.34	1	1	1	1	✓	✓	✓
2	Ballygunner (WCCC)	1	2.74	1	1	1	1	✓	✓	✓
3	Aughavnagh	1	5.27	1	1	1	1	✓	✓	✓
4	Grantstown	1	1.15	1	1	1	1	✓	✓	✓
5	Williamstown Road (East)	1	4.18	1	1	1	1	✓	✓	✓
6	Bilberry	1	0.51	1	1	1	1	✓	✓	✓
7	Williamstown Road (West)	1	4.81	1	1	1	1	✓	✓	✓
8	Ballybeg (North)	1	2.55	1	1	1	1	✓	✓	✓
9	King's Channel	1	2.91	1	1	1	1	✓	✓	✓
10	Kilbarry Road	1	3.96	1	1	1	1	✓	✓	✓
11	Balltnaneashagh	1	2.89	1	1	1	1	✓	✓	✓
12	Bawndaw (WCCC)	1	1.05	1	1	1	1	✓	✓	✓
13	Kilbarry (LIHAF Road South)	1	11.02	1	1	1	1	✓	✓	✓
14	Matties Hill	1	0.91	1	1	1	1	✓	✓	✓
15	Knockboy	1	3.85	1	1	1	1	✓	✓	✓
16	Kilcohan (Kill Saint Lawerce)	1	6.95	1	1	1	1	✓	✓	✓
17	Kilcohan (Greenfields)	1	3.48	1	1	1	1	✓	✓	✓
18	Kilbarry (Lacken Road East)	1	8.91	1	1	1	1	✓	✓	✓
19	Carrickphierish	1	8.01	1	1	1	1	✓	✓	✓
20	Rocklands	1	3.35	1	1	1	1	✓	✓	✓
21	Grantstown (Padocks)	1	9.38	1	1	1	1	✓	✓	✓
22	Kilbarry (Lacken Road West)	1	21.23	1	1	1	1	✓	✓	✓
23	Knockboy (North)	1	2.26	1	1	1	1	✓	✓	✓
24	Gracedieu (LIHAF)	1	1.80	1	1	1	1	✓	✓	✓
Total			**114.43**							

TABLE 4A: WATERFORD CITY PHASE 1 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

Ref:	Site Name	Phase	Area(ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Knockboy (North)	2	11.01	1	1	1	1	✓	✓	✓
2	Kilcohan (Kill Saint Lawerce)	2	7.44	1	1	1	1	✓	✓	✓
3	Kilcohan (Greenfields)	2	3.05	1	1	1	1	✓	✓	✓
4	Kilbarry	2	6.06	1	1	1	1	✓	✓	✓
5	Carrickphierish	2	14.12	1	1	1	1	✓	✓	✓
6	Kilbarry	2	23.79	1	1	1	1	✓	✓	✓
Total			**65.45**							

TABLE 4B: WATERFORD CITY PHASE 2 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

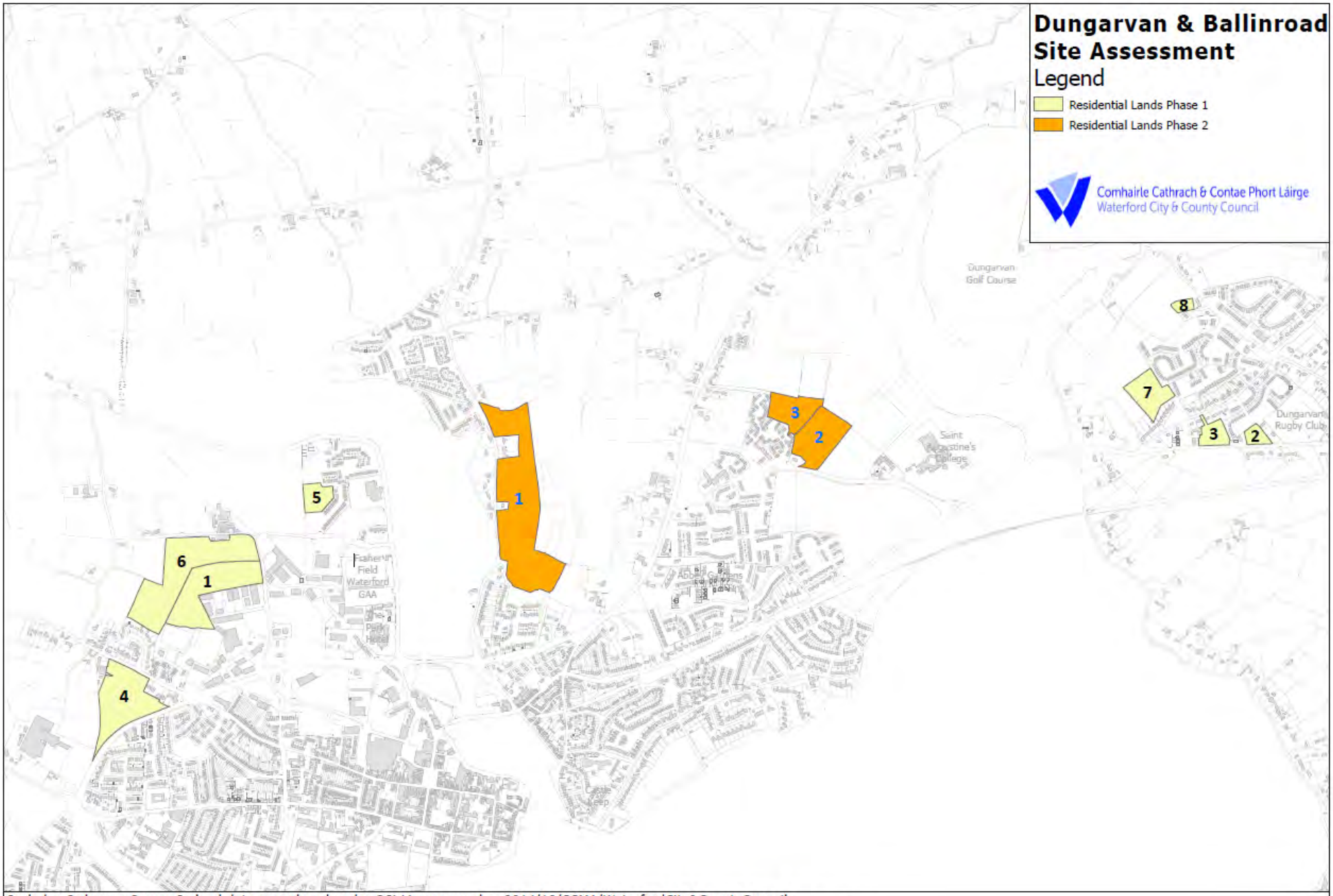
4.2 Waterford City Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of Waterford City during the life time of the plan.

5.0 Dungarvan/Ballinroad Site Identification

- In relation to Dungarvan/Ballinroad the existing Dungarvan Town Development Plan 2012 – 2018 and the Waterford County Development Plan 2011 - 2017 has included c.73 ha of zoned land for residential purposes. 6 ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 11 sites (8 sites phase 1 and 3 sites phase 2) were identified for further examination as illustrated in Figure 2 below.

FIGURE 2: DUNGARVAN/BALLINROAD SITE ASSESSMENT



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5.1 Dungarvan/Ballinroad Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 2 and 3 above provide a summary of the evaluation process. Table 5A provides an explanation of the weighting/scoring description of infrastructure availability for Phase 1 lands and Table 5B provides the same explanation for Phase 2 lands in Dungarvan/Ballinroad. It should be noted that the overriding infrastructural consideration and constraint for Dungarvan/Ballinroad are as follows:

- The capacity of the public waste water treatment plant is an issue during peak season. The plant currently has a limited space capacity of circa. 6,500 PE.
- Increased pump capacity at Southways can help service Monang Road.
- Mongang and Shandon lands are readily serviceable.
- Ground water infiltration into network at the spring roundabout.
- Services in Abbeyside are good and gravity sewer by St. Augustine's can service Duckspool area and land north of N25.
- Water network is generally good Storage capacity is limited however Irish Water plan to upgrade storage and treatment plant which should be completed within 5. GSK has additional private supply.
- Water mains undersized on Ballinacourty line.

5.2 Dungarvan/Ballinroad Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Shandon (South)		4.77	1	1	1	1	✓	✓	✓
2	Ballinroad (East)		0.56	1	1	1	1	x	✓	x
3	Ballinroad (South)		0.97	1	1	1	1	x	✓	x
4	Kilrush		4.64	1	1	1	1	✓	✓	✓
5	Estuary Heights		1.10	1	1	1	1	✓	✓	✓
6	Shandon (North)		7.07	1	1	1	1	✓	✓	✓
7	Ballinroad (West)		1.93	1	1	1	1	x	✓	x
8	Ballinroad (North)		0.35	1	1	1	1	x	✓	x
Total			**21.39**							

TABLE 5A: DUNGARVAN/BALLINROAD PHASE 1 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

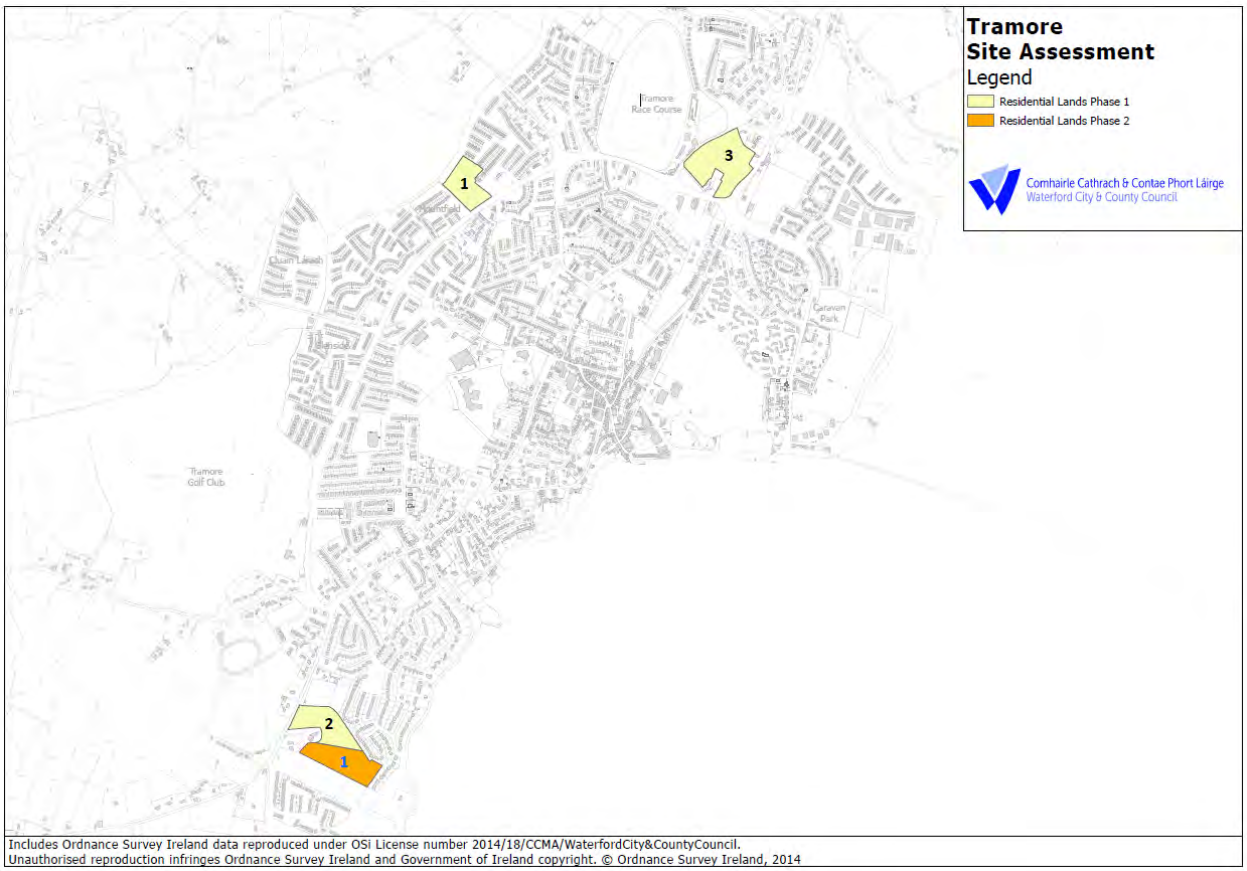
Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Monang	2	10.83	1	2	1	1	x	x	✓
2	Duckspool (South)	2	3.18	1	1	1	1	x	x	x
3	Duckspool (North)	2	2.07	1	1	1	1	x	x	x
Total			**16.09**							

TABLE 5B: DUNGARVAN/BALLINROAD PHASE 2 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

6.0 Tramore Town Site Identification

- With regards to Tramore the Tramore Local Area Plan 2014 – 2020 has included c.44 ha of zoned land for residential purposes. 9 ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 4 sites (3 phase 1 sites and 1 phase 2 site) were identified for further examination as illustrated in Figure 3 below.

FIGURE 3: TRAMORE SITE ASSESSMENT



6.1 Tramore Town Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 2 and 3 provide a summary of the evaluation process. Table 6A provides an explanation of the weighting/scoring description of infrastructure availability for Phase 1 lands and Table 6B provides the same explanation for Phase 2 lands in Tramore. It should be noted that the overriding infrastructural consideration and constraint for Tramore area as follows:

- Major network capacity issues to all pump stations.
- Upgrade pipe size at Monvoy along Glen Road (225/300mm pipe to 450mm pipe) while 3 additional pumps required at An Garraun.
- Need upgrade of line on Cliff Road due to combined sewer and missed connections.
- WWTP at capacity 6 months of year due to PE and combined storm flows with overflow into back strand.
- Space for additional scarrifiers and settling ponds at WWTP.
- Infiltration of surface/ground water into the network.
- Water Network has a distribution issues esp. north of church and ring road served from Sporthouse with history of breakages on this 10" main. Developer led solutions addressing this distribution on agreement of IW. Increase capacity at Sporthouse by 69% (current 5k PE) plus new 10 inch main. Alternative to facilitate pressurised water from Ballydrislane (Racecourse) with new 10k m3 reservoir to service elevated lands and avoid disruption to Bulterstown area by way of Sporthouse works.

6.2 Tramore Town Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Monloum	1	2.34	1	1	1	1	✓	✓	✓
2	Newtown (North)	1	2.86	1	1	1	1	X	✓	X
3	Crobally Upper	1	4.65	1	1	1	1	✓	✓	✓
Total			**9.86**							

TABLE 6A: TRAMOR PHASE 1 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

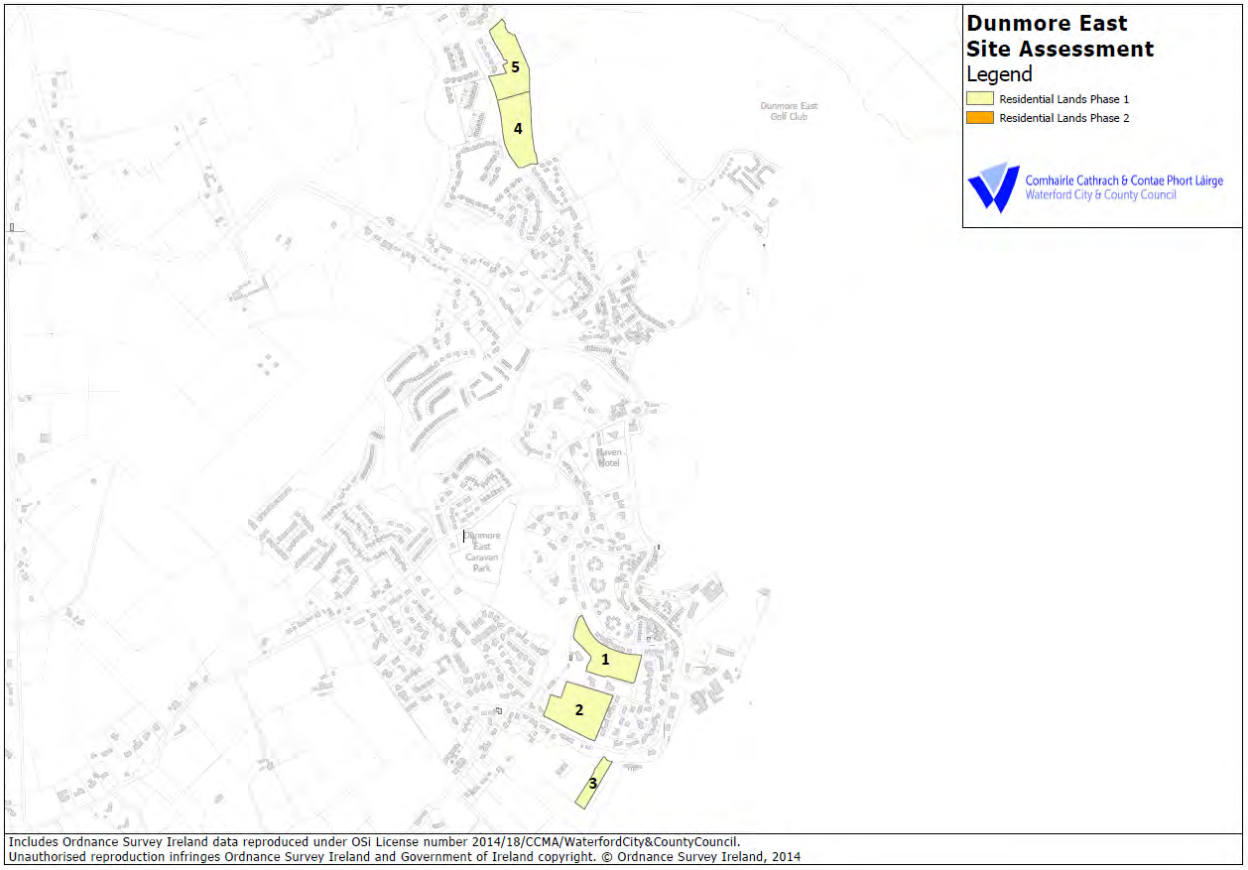
Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Newtown (South)	2	3.07	1	1	1	1	X	✓	X
Total			**3.07**							

TABLE 6B: TRAMOR PHASE 2 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

7.0 Dunmore East Site Identification

- With regards to Dunmore East the Waterford County Development Plan 2011 - 2017 has included c.77 ha of zoned land for residential purposes. 3 ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 5 sites (phase 1) were identified for further examination as illustrated in Figure 4 below.

FIGURE 4 DUNMORE EAST SITE ASSESSMENT



7.1 Dunmore East Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 2 and 3 above provide a summary of the evaluation process. Table 7A provides an explanation of the weighting/scoring description of infrastructure availability for Phase 1 lands in Dunmore. It should be noted that the overriding infrastructural consideration and constraint for Dunmore East is as follows:

- Water Network Reservoir capacity only 6 hr capacity and not 24 hr as would generally be required, water pressure poor in Killea and Coxtown as a result.

7.2 Dunmore East Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

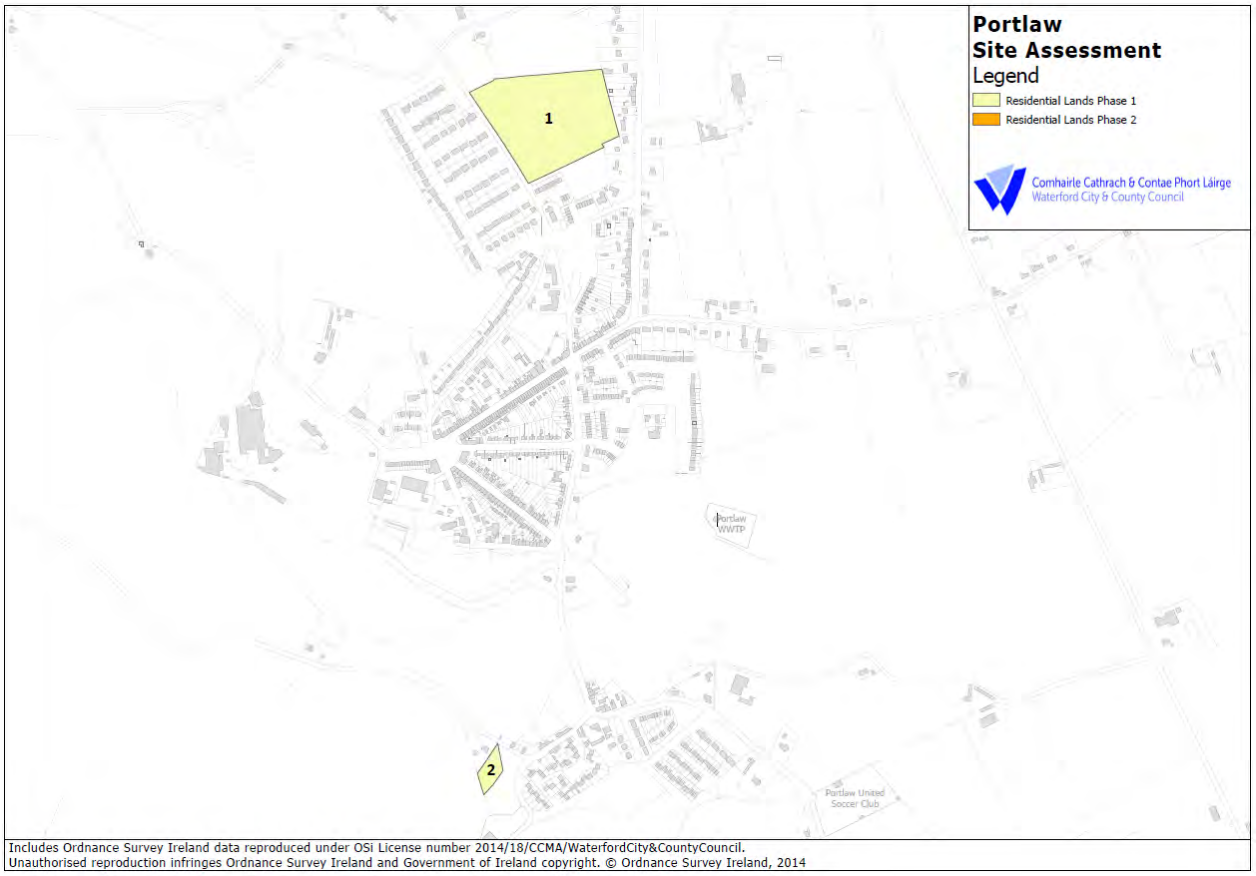
Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Circular Road	1	1.45	1	1	1	1	✓	✓	✓
2	Coxtown (North)	1	1.86	1	1	1	1	✓	✓	✓
3	Coxtown (East)	1	0.45	1	1	1	1	✓	✓	✓
4	Auskurra Little (South)	1	1.56	1	1	1	1	x	✓	x
5	Auskurra Little (North)	1	1.46	1	1	1	1	x	✓	x
Total			**6.78**							

TABLE 7A: DUNMORE EAST PHASE 1 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

8.0 Portlaw Town Site Identification

- With regards to Portlaw the Portlaw Local Area Plan 2014 – 2020 has included c.7 ha of zoned land for residential purposes. 0.62 ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 2 sites (phase 1) were identified for further examination as illustrated in Figure 5 below.

FIGURE 5: PORTLAW SITE ASSESSMENT



8.1 Portlaw Town Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 1 and 2 above provide a summary of the evaluation process. Table 8 provides an explanation of the weighting/scoring description of infrastructure availability for Phase 1 lands in Portlaw. It should be noted that the overriding infrastructural consideration and constraint for Portlaw are as follows:

- Local groundwater source with no capacity for servicing across the town which results in an inconsistent water quality. A new connection to Adamstown is needed.

8.2 Portlaw Town Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

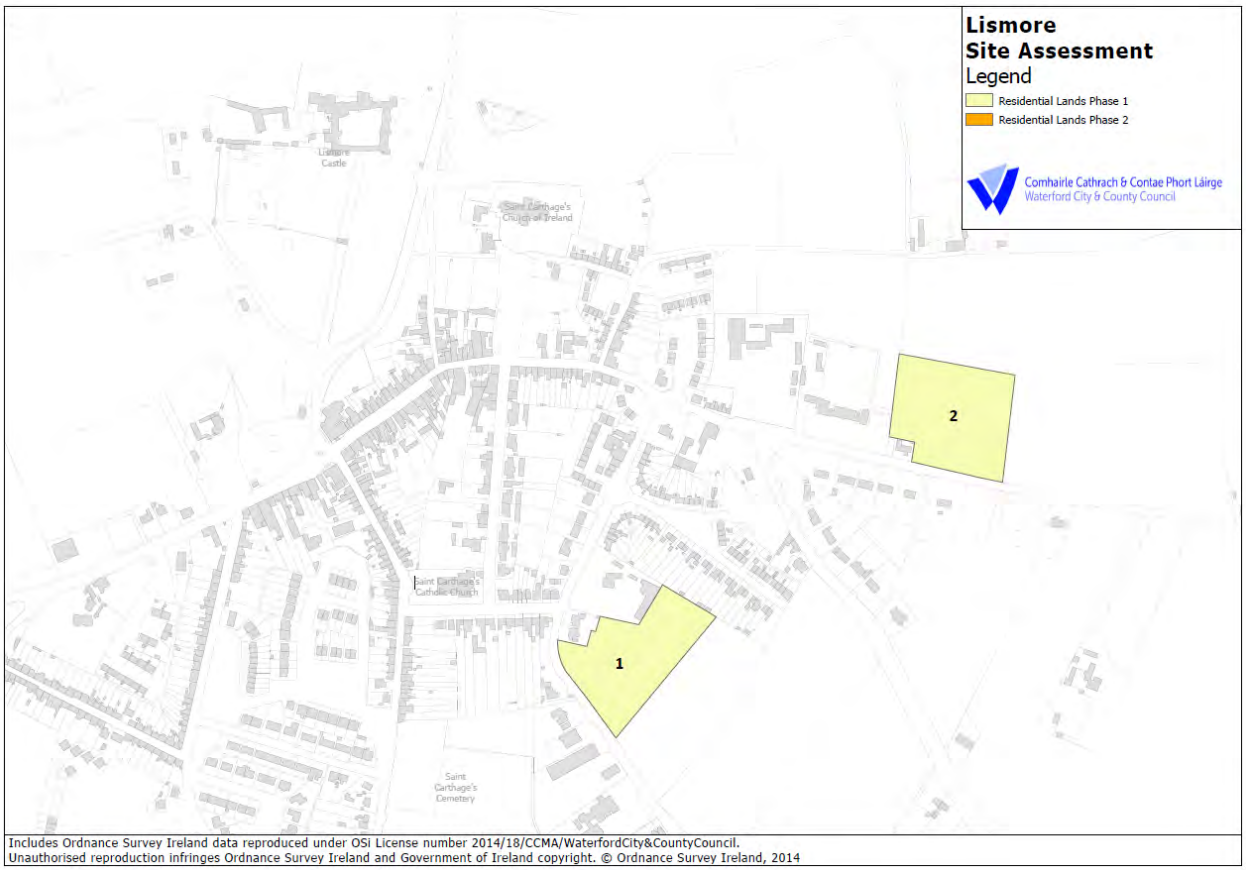
Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Old Scrouty Road	1	4.64	1	1	1	1	✓	✓	✓
2	Coolfin	1	0.28	1	1	1	1	✓	✓	✓
Total			**4.93**							

TABLE 8: PORTLAW-PHASE 1 SITE SPECIFIC INFRASTRUCTURE ASSESSMENT

9.0 Lismore Town Site Identification

- In relation to Lismore the Lismore Local Area Plan 2014 – 2020 has included c.6 ha of zoned land for residential purposes. 0.77 ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 2 sites (phase 1) were identified for further examination as illustrated in Figure 6 below.

FIGURE 6: LISMORE SITE ASSESSMENT



9.1 Lismore Town Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 1 and 2 above provide a summary of the evaluation process and Table 9 provides an explanatory of the weighting/scoring description of infrastructure availability. It should be noted that the overriding infrastructural consideration for Lismore is as follows:

- Water storage capacity is low with high leakage locally.

9.2 Lismore Town Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the above sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Deerpark/Mayfield Road	1	1.46	1	1	1	1	✓	✓	✓
2	Ballyea Road	1	1.61	1	1	1	1	✓	✓	✓
Total			**3.07**							

TABLE 9: LISMORE SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

10.0 Gaeltacht na nDéise Site Identification

- With regards to Gaeltacht na nDéise Waterford County Development Plan 2011 - 2017 has included c.33 ha of zoned land for residential purposes. Circa 0ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 6 sites (5 phase 1 and 1 phase 2) were identified for further examination as illustrated in Figure 7 below.

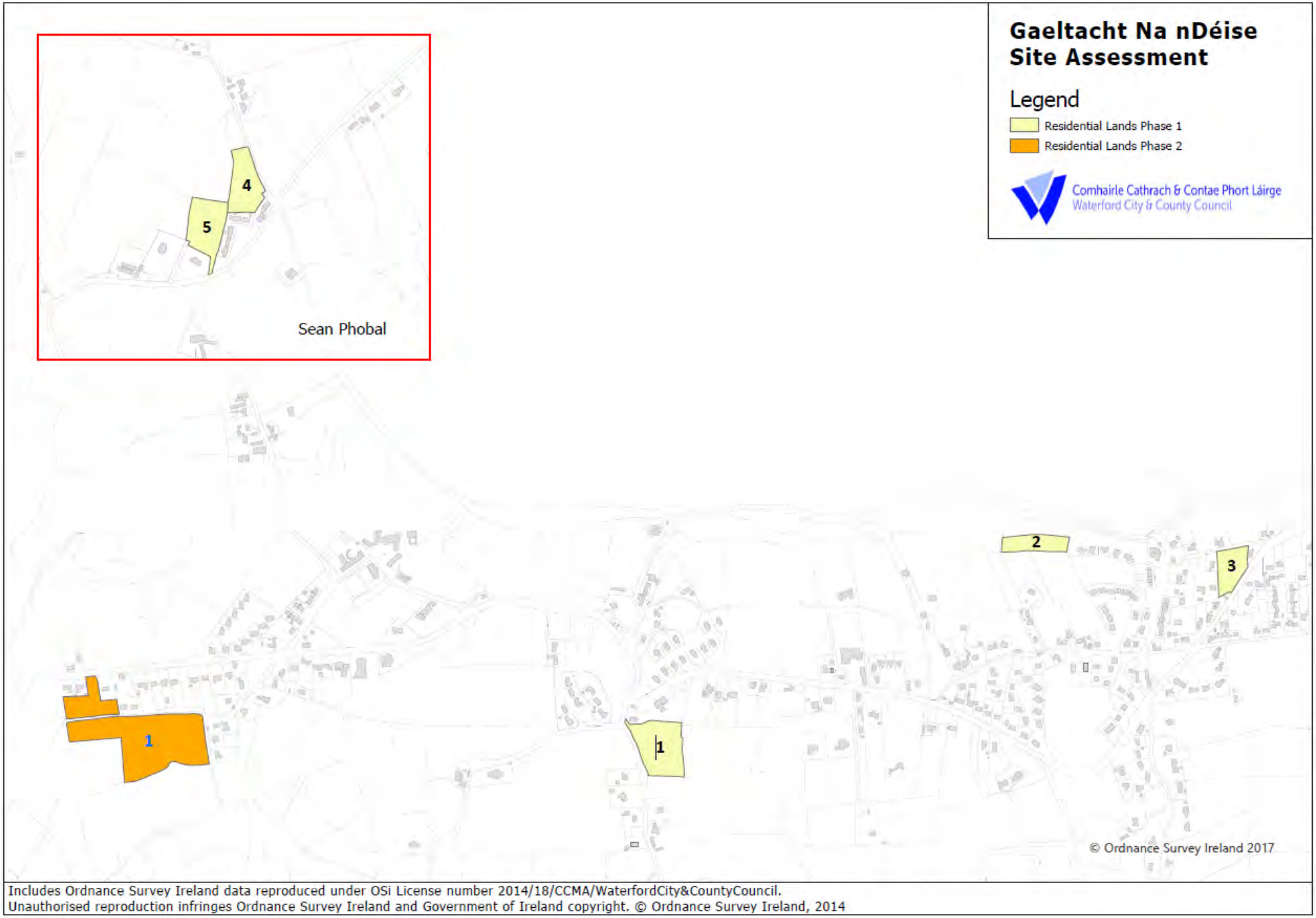
10.1 Gaeltacht na nDéise Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 1 and 2 above provide a summary of the evaluation process. Table 10A provides an explanation of the weighting/scoring description of infrastructure availability for Phase 1 lands and Table 10B provides the same explanation for Phase 2 lands in Gaeltacht na nDeise.

10.2 Gaeltacht na nDéise Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the following sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

FIGURE 7: GAELTACHT NA NDÉISE SITE ASSESSMENT



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Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Cluain na Si	1	1.17	1	1	1	1	✓	✓	✓
2	Baile na nGall Beag (West)	1	0.50	1	1	1	1	✓	✓	✓
3	Baile na nGall Beag (East)	1	0.54	1	1	1	1	✓	✓	✓
4	Sean Phobal (North)		0.83	1	1	1	1	✓	✓	✓
5	Sean Phobal (South)		0.93	1	1	1	1	✓	✓	✓
Total			**3.97**							

TABLE 10A: GAELTACHT NA NDÉISE PHASE 1 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

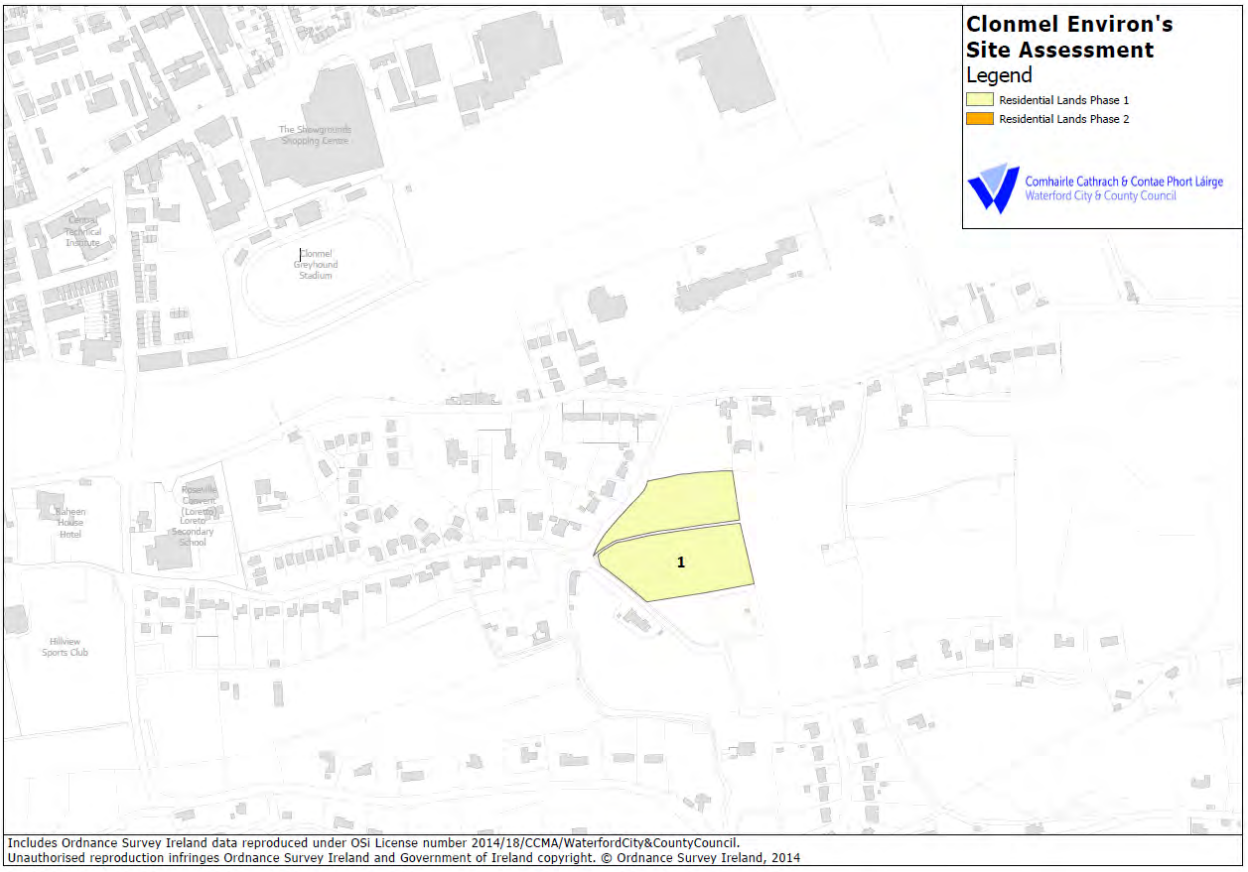
Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Maoil an Choirnigh	2	3.38	1	1	1	1	x	✓	x
Total			**3.38**							

TABLE 10B: GAELTACHT NA NDÉISE PHASE 2 SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

11.0 Clonmel Environs Site Identification

- With regards to Clonmel Environs Waterford County Development Plan 2011 - 2017 has included c.40 ha of zoned land for residential purposes. Circa 0ha have been developed over the lifetime of the Plan.
- All lands currently identified with in existing plan and a number of contiguous sites were identified for detailed review and assessment. Land identified by the Strategic Flood Risk Assessment to be at risk of flooding was discounted from the assessment. In total 1 site (phase 1) was identified for further examination as illustrated in Figure 8 below.

FIGURE 8: CLONMEL ENVIRONSSITE ASSESSMENT



11.1 Clonmel Environs Site Assessment

All sites have been appraised based on infrastructural requirements and land use criteria. Tables 1 and 2 above provide a summary of the evaluation process and Table 11 provides an explanatory of the weighting/scoring description of infrastructure availability. It should be noted that the overriding infrastructural consideration and constraint for Clonmel are as follows:

- Security of supply and adequate pressure cannot be guaranteed during periods of adverse weather from Glenary Water Supply.

11.2 Clonmel Environs Land Use Framework

Having regard to the NPF methodology for land zoning, the population targets, infrastructure capacity and the comprehensive review of the lands, the following sites are considered to meet land zoning requirements and will support the sustainable growth of the town.

Ref:	Site Name	Phase	Area (ha)	Roads	Footpath	Water Supply	Waste Water	Compact Growth	Public Transport	Co-ordinated Dev.
1	Old Spa Road	1	1.93	1	1	1	1	✓	✓	✓
Total			**1.93**							

TABLE 11: CLONMEL ENVIRONS SITE-SPECIFIC INFRASTRUCTURE ASSESSMENT

Appendix 18

Waterford City and County Socio Demographic Profile 2020 AIRO

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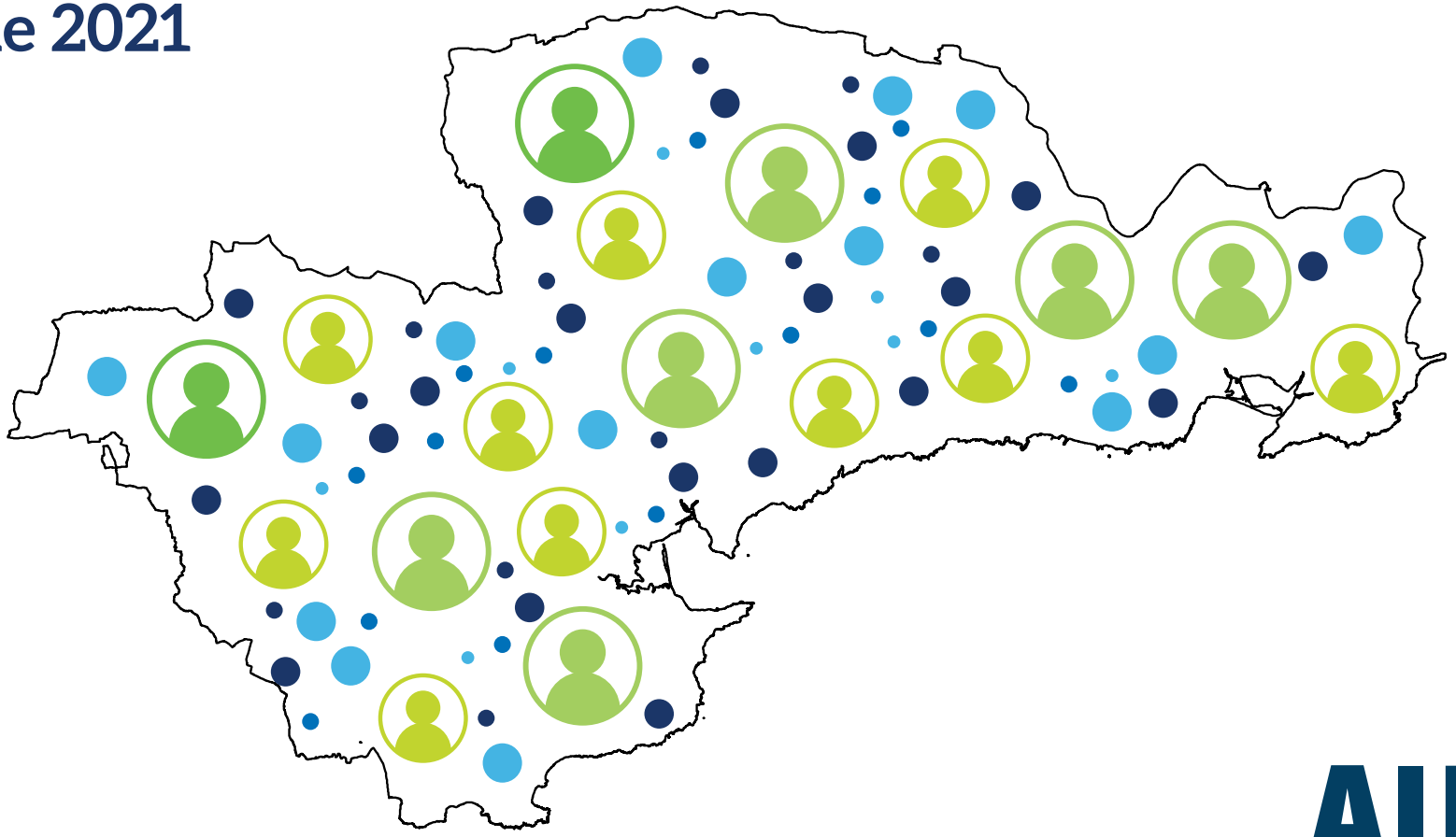
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

A socio-demographic indicator profile of Waterford City and County,

June 2021



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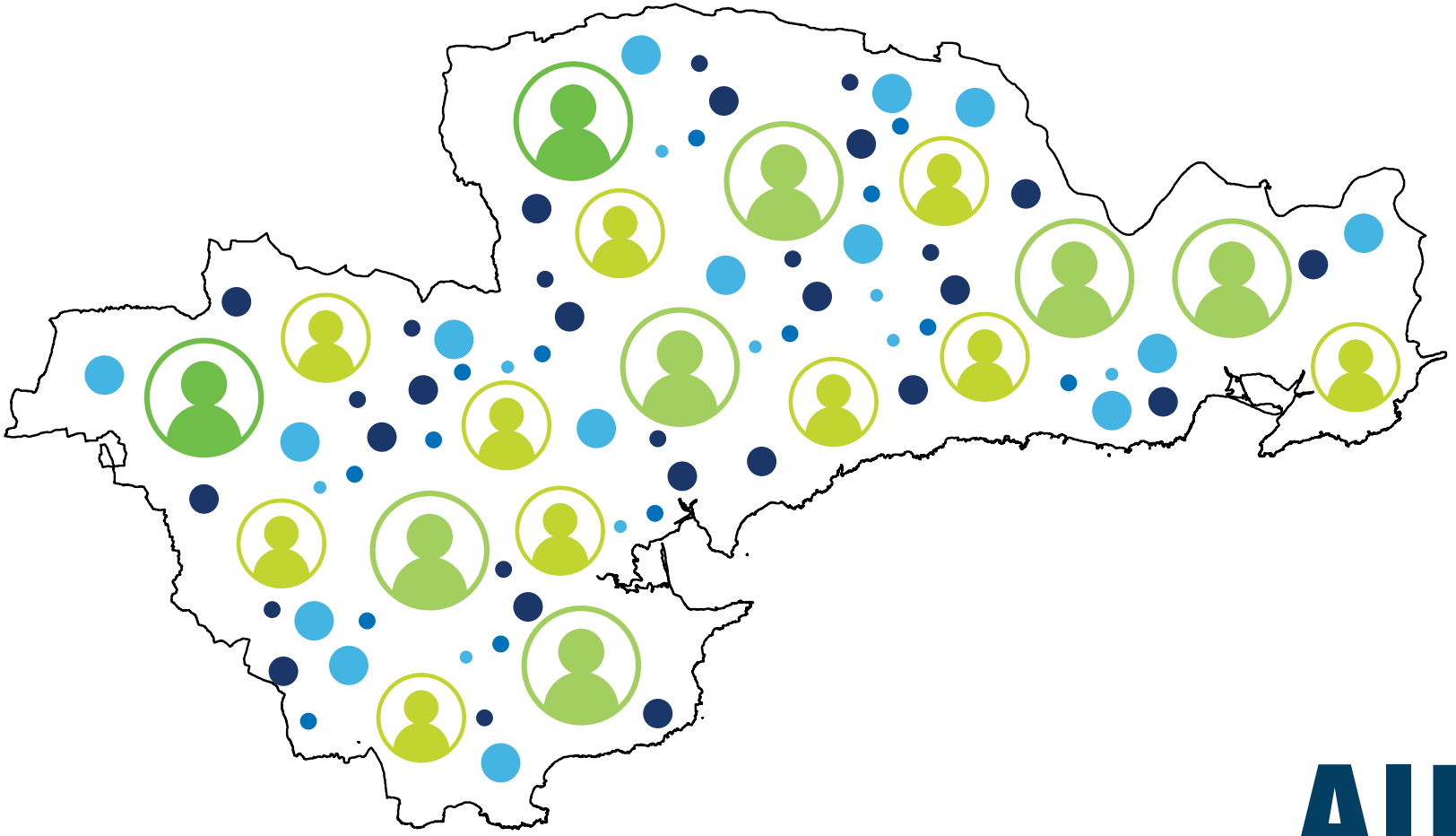
Introduction & Methodology

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council



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In line with international best practice, local authorities, other public bodies and civil society organisations in Ireland are increasingly moving away from 'trend planning' towards 'vision planning'. Whereas trend planning was generally reactive, and involved making decisions on the basis of past trends, modelling and future projections, vision planning is a more proactive process, and it implies setting out a vision for a particular territory / region. Vision planning involves agreeing objectives and strategies to enable places to realise their potential. It involves, in the first instance, taking stock of assets – recognised, latent and potential, setting baselines, identifying gaps that need to be addressed, motivating participation, agreeing targets and leveraging resources. This demographic and socio-economic profile of the county represents an important contribution to the processes associated with vision planning in County Waterford.

This profile takes stock of many of Waterford's resources. Its primary focus is on the people of Waterford, and the document provides extensive and comprehensive data in respect of the composition of Waterford's population. This allows the local authority and other bodies to identify the issues that affect the people of Waterford and to agree, with them and with other relevant stakeholders, the strategies and actions that are required to address issues and to enable all parts of the county to realise their respective potentials. Enabling all places to realise their potential is essential in promoting summative growth, whereby all areas contribute to the overall sustainable development of the county, thus reducing internal disparities and promoting greater cohesion across the county. To these ends, this profile provides a refined analysis of local-level dynamics and the degree of convergence and divergence within the county, in respect of almost one hundred indicators.

The profile enhances the evidence base available to Waterford County Council and to others in enabling strategic decision-making. Evidence-based decision-making ensures greater efficiencies in the use of scarce resources and enhances the effectiveness of service delivery to citizens and communities. The evidence base, as presented in this profile, also allows for the establishment of baselines and performance indicators, so that actors can set targets and review and monitor progress over time.

This particular profile distinguishes itself from many others by virtue of its very refined geographical analysis. Such micro-level spatial analysis has unearthed data and information that, in some cases, surprised us, and in other cases, confirmed what we had expected. While it may have been tedious, at times, the investment in such a refined level of analysis has given stakeholders in Waterford an enhanced understanding of the county's geography and a strengthened hand in working with government and others to leverage resources around attaining agreed objectives and delivering on a strategic vision for the county.

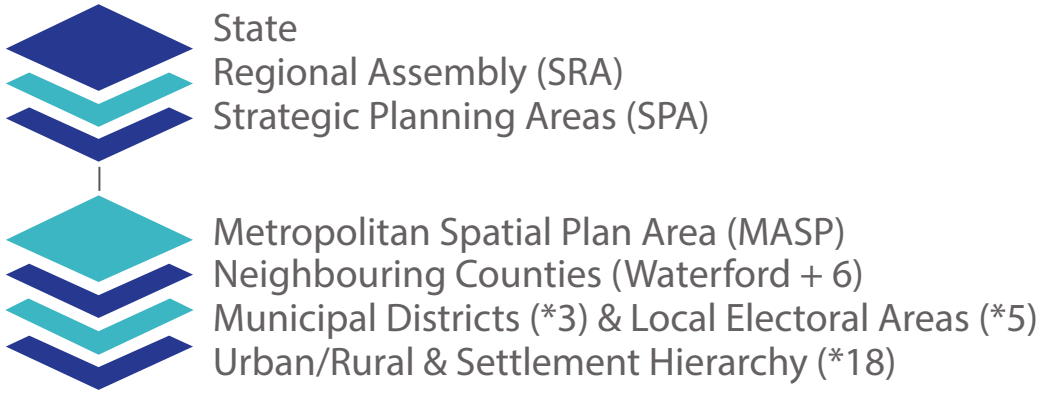
About the Report

The objectives of this study are to provide Waterford City and County Council (Planning department) with a wide range of socio-economic and spatial datasets, in the form of maps, graphics and summary report. This evidence baseline will support a number of spatial planning initiatives such as the review of the upcoming Development Plan for Waterford City and County. The evidence baseline will also support the preparation and review of local area plans, the monitoring of the Local Economic and Community Plan (LECP) for the City and County, and assist in reviewing the position of Waterford City and County within the Regional Spatial and Economic Strategy (RSES) for the Southern Regional Assembly. The report is set out across six main chapters; (1) Demography, (2) Housing, (3) Commuting and Jobs, (4) Education, (5) Economy and Income and (6) Settlement Profile.

Following a collaborative approach between the project team and Waterford County Council, each chapter sets out a series of key indicators in the form of graphical illustrations and maps with accompanying key commentary. Where possible, and depending on data availability, all graphics have been designed using a 'geographical hierarchy' methodology (see graphic below).

This methodology provides a single view of each indicator using both raw numbers (showing the true scale of numbers across the county) and percentages (useful for comparative analysis), at a range of comparative geographies: State, Regional Assembly (Southern Assembly), Strategic Planning Area (South-East A and B - see note below), Comparative Counties (neighbouring and South-East SPA), Municipal Districts (2019), Local Electoral Areas (LEAs) and a series of settlements across Waterford (Metropolitan Area, Key Town, Urban Towns and Rural Settlements). The graphics also provide data for both Urban and Rural Waterford. For the purposes of this report, Urban areas are defined as all settlements with a population of greater than 1,500 in Census 2016 (Lismore was also included as an Urban settlement due to likely population increases post Census 2016).

Each individual indicator within the report is designed to be used and read in isolation and includes a standard summary of the main trends and the key points relating to the accompanying graphics and maps.



Whilst the report focuses on the key demographic, economic, community and environmental indicators and provides a certain amount of context relating to each indicator, it is highly recommended that it is not used in isolation to the other national data initiatives that have been developed such as the Department for Housing, Local Government and Heritage (DHLGH), Pobal Maps, AIRO Census Mapping Viewers and the GeoHive Environmental Sensitivity Mapping (ESM) tool.

Useful mapping tools are as follows:

- https://www.myplan.ie/webapp/ - https://maps.pobal.ie/
- https://airomaps.nuim.ie/id/Census2016/ - https://www.enviromap.ie/

Acknowledgements

Waterford City and County Council
Mr Liam McGree, Senior Planner, Waterford City and County Council
Mr Hugh O'Brien, Planning Department, Waterford City and County Council
Mr Jon Hawkins, GIS Projects, Waterford City and County Council

Key Data Sources

The development of this evidence based report has been based on open access to a wide variety of statistical datasets from a number of key agencies across Ireland and also from the cooperation of a number of stakeholders linked to Waterford City and County Council.

The following is a list of key data sources and datasets that were used in developing this report:

Central Statistics Office (CSO)

The Central Statistics Office (CSO) provided the vast amount of data within this report and will continue to be the main source for future revisions and any monitoring process that is put in place for Waterford City and County. The main datasets that were sourced from the CSO were as follows:

- Census 2016
- Place of Work Census of Anonymised Records (POWCAR)
- Quarterly National Household Survey (QNHS)
- Live Register
- Business Demography

Department of Business, Enterprise & Innovation (DBEI)

DBEI provided extremely useful information on the number of jobs within both Foreign and Irish owned companies at a county level in Ireland. This data is available on request from the Department.

Department of Social Protection

DSP provide very detailed statistics on levels of Rent Supplement expenditure at the local authority level in Ireland.

Higher Education Authority (HEA)

The HEA provide a wide variety of datasets on 3rd level education in Ireland.
http://www.hea.ie/en/statistics/overview

Irish Times Feeder Schools

The Irish Times publish an annual dataset on flows from secondary schools in Ireland to 3rd level institutions in Ireland. The research team at AIRO have worked with 3 years of this data to build a detailed picture of access to 3rd level education from all schools in Ireland. This data is published via the Irish Times website.

Department for Education and Skills (DES)

DES provide a wide variety of datasets on primary and post-primary education in Ireland with
information on school numbers, class sizes, pupil-teacher ratios and DEIS schools, participation rates and absenteeism.
http://www.education.ie/en/Publications/Statistics/

POBAL HP Deprivation Index

The Pobal HP Deprivation Index data is available from the Trutz Haase website. This is the primary dataset on social deprivation in Ireland and is a key indicator for all local authorities.
http://trutzhaase.eu/

Pobal also provided the research team at AIRO with a complete inventory of all childcare facilities in the region. This data is publicly available to view at the following link.
http://maps.pobal.ie/

GeoDirectory

GeoDirectory is Ireland's national address database, Working in collaboration with Waterford County Council GIS department, GeoDirectory has been used to map addresses data and housing vacancy rates across Waterford. https://www.geodirectory.ie/products-services

Developing statistical data for Waterford City and Environs

The Waterford City and Suburbs figures throughout the report are based on the area of the settlement boundary that is located within Waterford County only. The portion of the settlement that extends into Kilkenny has been excluded from the analysis. The revised boundary was derived from aggregated Small Area geographies that align with the Waterford County portion of the settlement boundary.

Note: Special arrangements for Tipperary

The unified county is fully incorporated in the Southern Assembly region, however as the NPF defines the Mid-West as including the northern part of Tipperary and South-East as including the southern part of Tipperary, for statistical purposes in the Socio-Economic Baseline Report we present South Tipperary data in the South-East SPA and North Tipperary data in the Mid-West SPA. Arising from the strong linkage between the northern part of the county and Limerick and between the southern part and Waterford, the Tipperary Assembly Members are Members of both the Mid-West and South-East Strategic Planning Areas (SPAs).

For clarity the following values apply (See Appendix for map):
South-East (A) refers to Carlow, Waterford, Wexford, Kilkenny and all of Tipperary
South-East (B) refers to Carlow, Waterford, Wexford, Kilkenny and Tipperary South

All mapping has been produced using open source GIS software (QGIS) and contains Irish Public Sector Data (data.gov.ie) licensed under a Creative Commons Attribution 4.0 International (CCBY 4.0) licence.

Data Source: OpenStreetMap, CSO Census 2016

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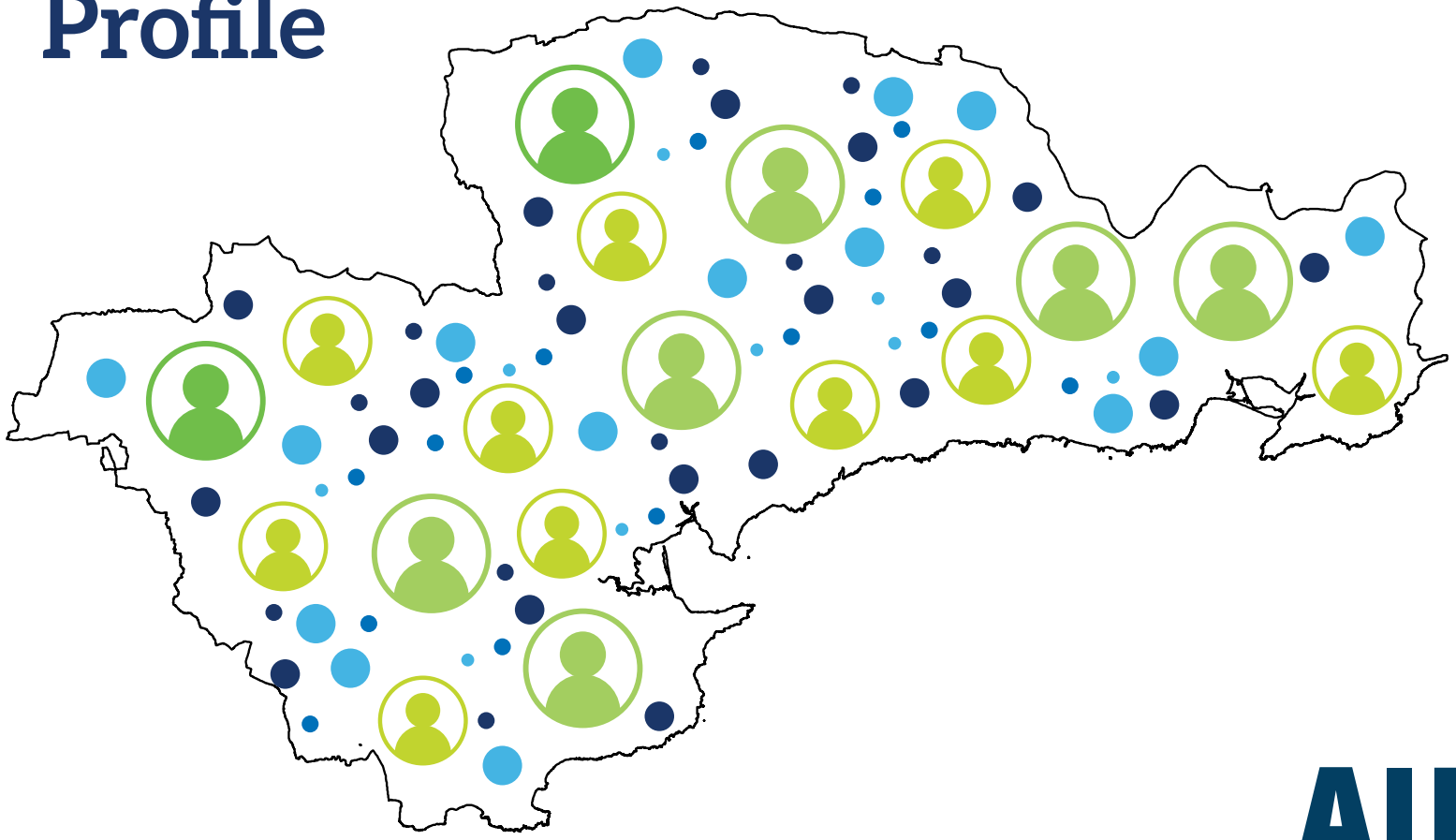
Waterford City & County Council

Section 1:
Demographic Profile



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Total Population, 2016

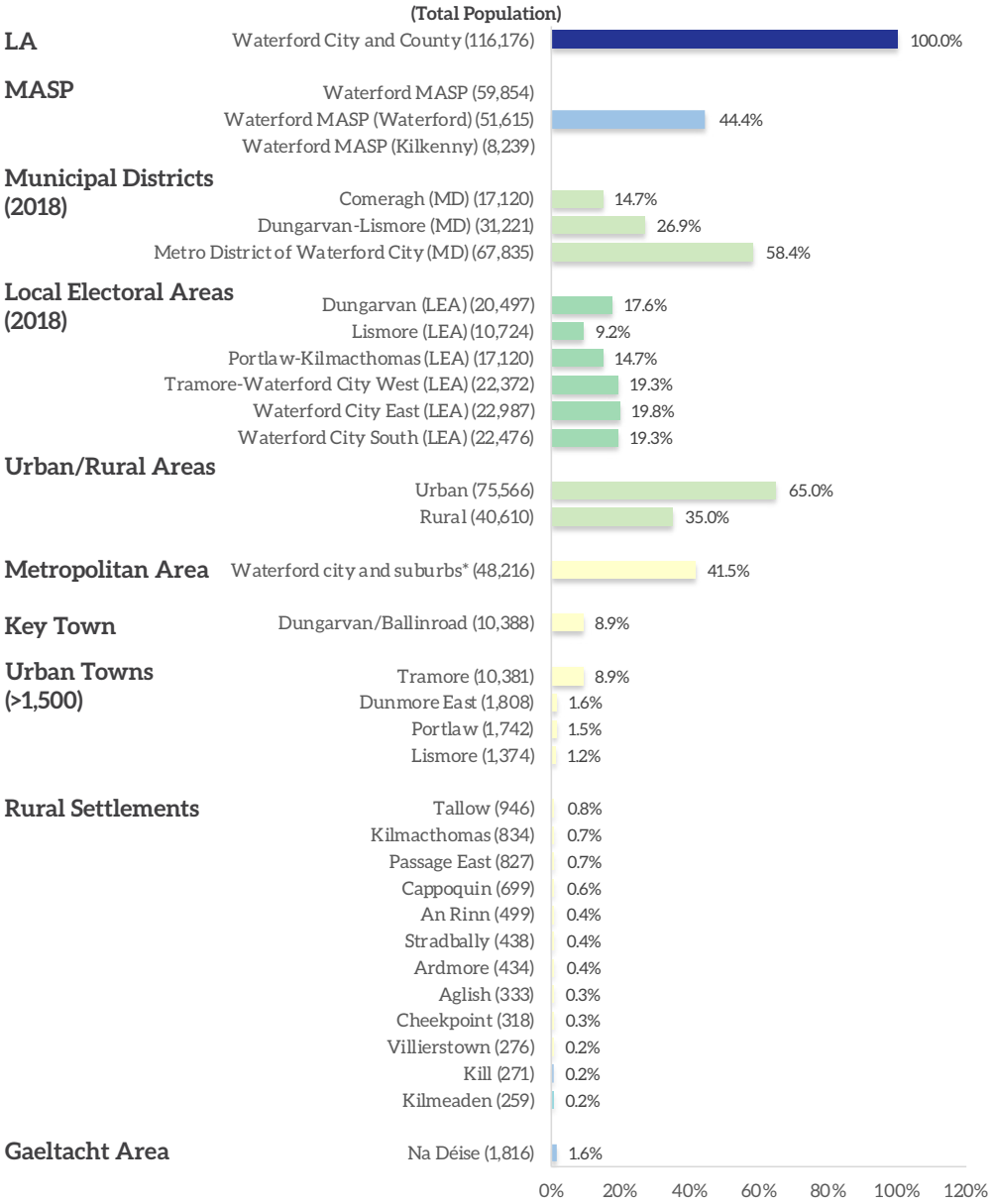

Figure 1.1: Total Population, 2016 (Source: CSO)

1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011 (Waterford County)

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Waterford City & County Council

- Waterford's population of 116,176 represents 2.4% of the State's population. Waterford is the 19th most populated local authority in Ireland and is the 3rd most populous county in the South-East with both Tipperary (N+S 159,553) and Wexford (149,722) with higher populations. The South-East Region itself (including North Tipperary) accounts for almost one-eighth (12.2%) of the population of the State.
- Within Waterford, the Waterford City MD is by far the largest in terms of population. With a total population of 67,835 it accounts for 58.4% of the population in the county. The Comeragh MD is the smallest and accounts for just 14.7% of the county population. The Waterford MASP area has a total population of 59,854. Of this number, 51,615 (86.2%) are located in Waterford and account for 44.4% of the total population in the county. The remaining 8,239 (13.8%) of the MASP total reside in Kilkenny.
- Urban Waterford (all settlements > 1,500 and includes Lismore) has a total population of 75,566 and accounts for 65% of the population within the county. The Rural area therefore accounts for 35% with a total population of 40,610.
- The settlement hierarchy across Waterford is defined in the accompanying graphic with total population for 2016 and the percentage rate of the county total annotated. Please note, only settlements where the CSO provide an official population figure are included in this graphic and all others throughout the report.

Historical Population Change, 1841-2016

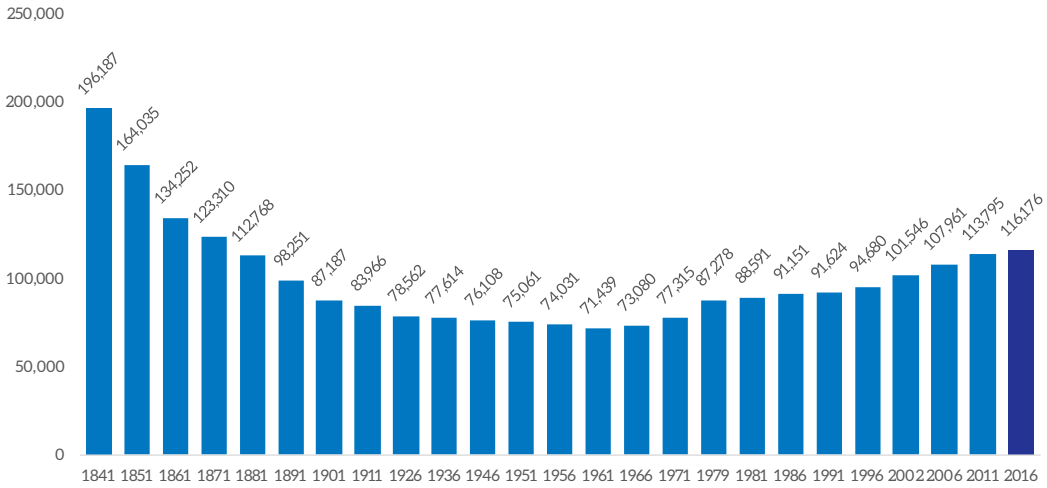


Figure 1.2: Total Population 1841 to 2016 (Source: CSO)

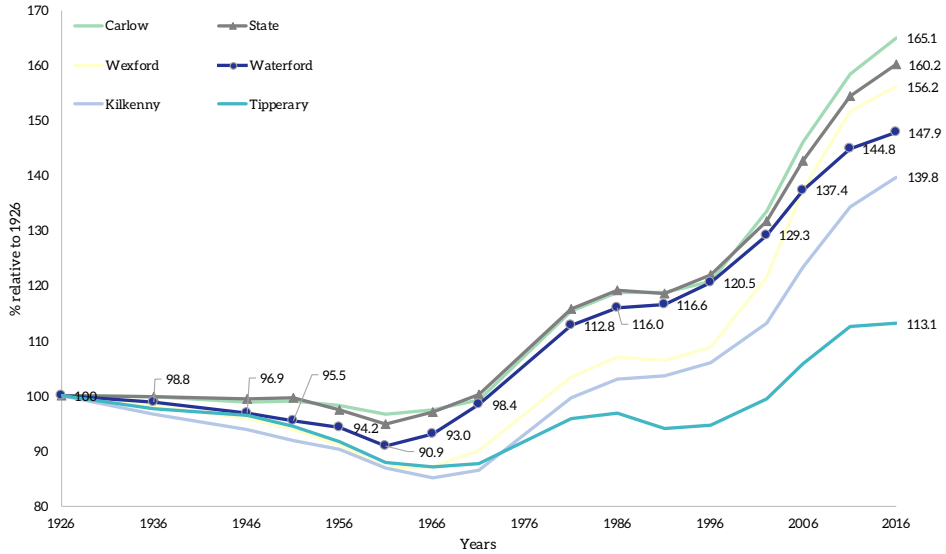


Figure 1.3: Relative Popualtion Change 1926 to 2016 (Index: 1926 = 100) (Source: CSO)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- Waterford's total population now stands at 116,176. The county's population has grown consistently and steadily since 1996 – an increase of 22.7% (n=21,496) over twenty years. In the preceding two decades the rate of growth was much lower, and stood at 8.5% between 1979 and 1996. The population had grown at a faster pace during the 1970s i.e., by 12.9% between 1971 and 1979. However, the situation up to then was largely characterised by decline and stagnation. The year 1961 marks the lowest point in Waterford's population; the level at that point in time (n=71,439) is the equivalent of 61.5% of the current population level.

- As the following graph shows, population change in Waterford has consistently been below that of the State. The county experienced net population decline up to the late-1970s, but growth has been consistent over the past fifty years, particularly since 2002. As the graph also shows, Waterford outperforms the other counties in the South-East Region in respect of longitudinal population growth. Only Carlow has consistently outperformed Waterford across the region. Wexford's growth rate increased at a faster pace than Waterford's over the past thirty years, but Wexford was coming from a lower base, as its population had declined considerably up to 1966. Much of the recent growth in Carlow and Wexford can be attributed to new housing developments in the northern parts of both counties - linked to Dublin metropolitan commuter employment opportunities.

Population Projections, 2016 - 2040

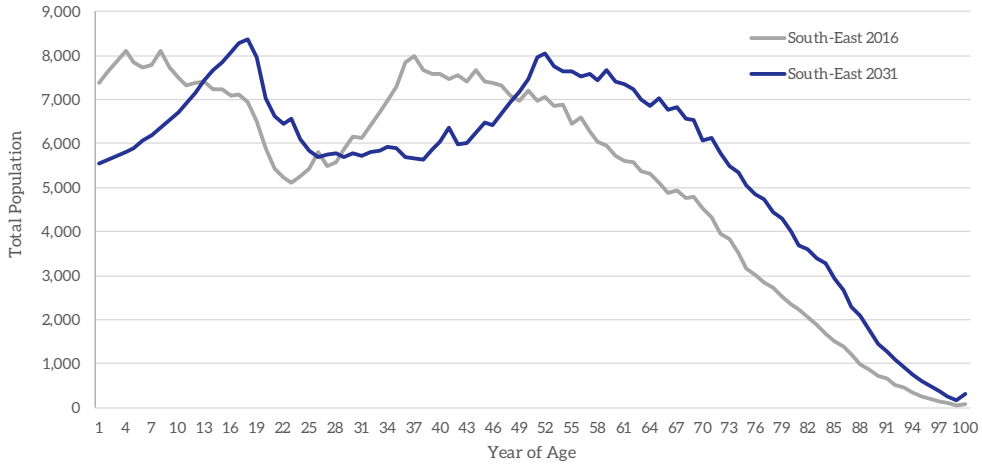
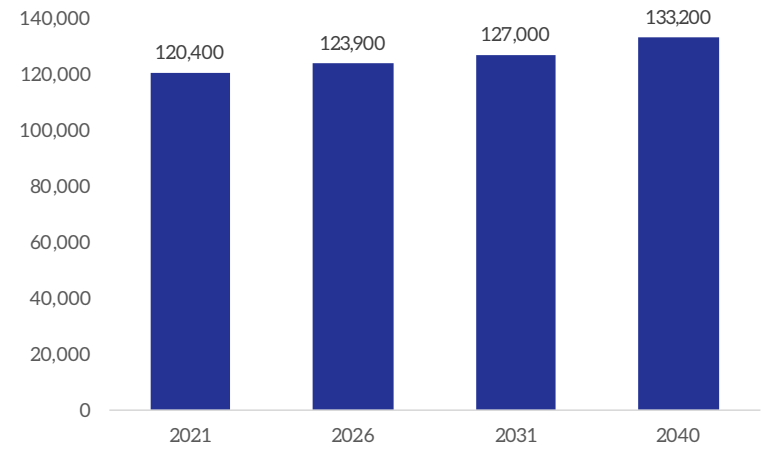


Figure 1.4: Projected Population Change for the South-East by age, 2016-31 (CSO)

- The population of the South-East Region is projected to increase over the coming fifteen years. However, the increase will be accompanied by an ageing of the population, and specifically an expansion in the number of persons aged over 50. It is anticipated that, by 2031, the proportion of persons aged 29 to 50 will have declined by about 13%. However, an expected spike in the teenage population, associated with current birth rates, may bode well for the proportion of young adults in the population post 2031, provided that they are retained in the region, and do not migrate elsewhere.



- A recent research paper titled 'Regional Demographics and Structural Housing Demand at a County Level, Dec 2020', funded by the Irish Department of Housing, Local Government and Heritage and the ESRI, provides detailed county level population projections to 2040. This report provides estimates of structural housing demand at a local authority level out to 2040, based on regional demographic projections and projections for rates of household formation. These estimates are based on a new regional demographic model that explicitly incorporates the economic mechanisms that determine internal migration, and projections for headship rates. The report also considers a scenario, broadly consistent with the 50:50 City scenario developed in the National Planning Framework, where population growth is more evenly distributed between the East and Midland region and the rest of the country and where counties with larger cities attract higher inflows, and this is achieved by changing relative regional economic conditions.
- According to this report, the population of Waterford is estimated to be 120,400 in 2021 and will increase by 10.6% to 133,200 in 2040 (+17,500). This is the 8th lowest rate of increase of all counties in Ireland. Population increases (2021-40) for other South-East counties are as follows: Carlow (19.4%, +11,700), Kilkenny (17.2%, +17,700), Wexford (13.8%, +21,600) and Tipperary (9.8%, +16,200).

Figure 1.5: Projected Population Change in Waterford County, 2021 to 2041 (ESRI and DHLGH)

Population Change, 1996 to 2016

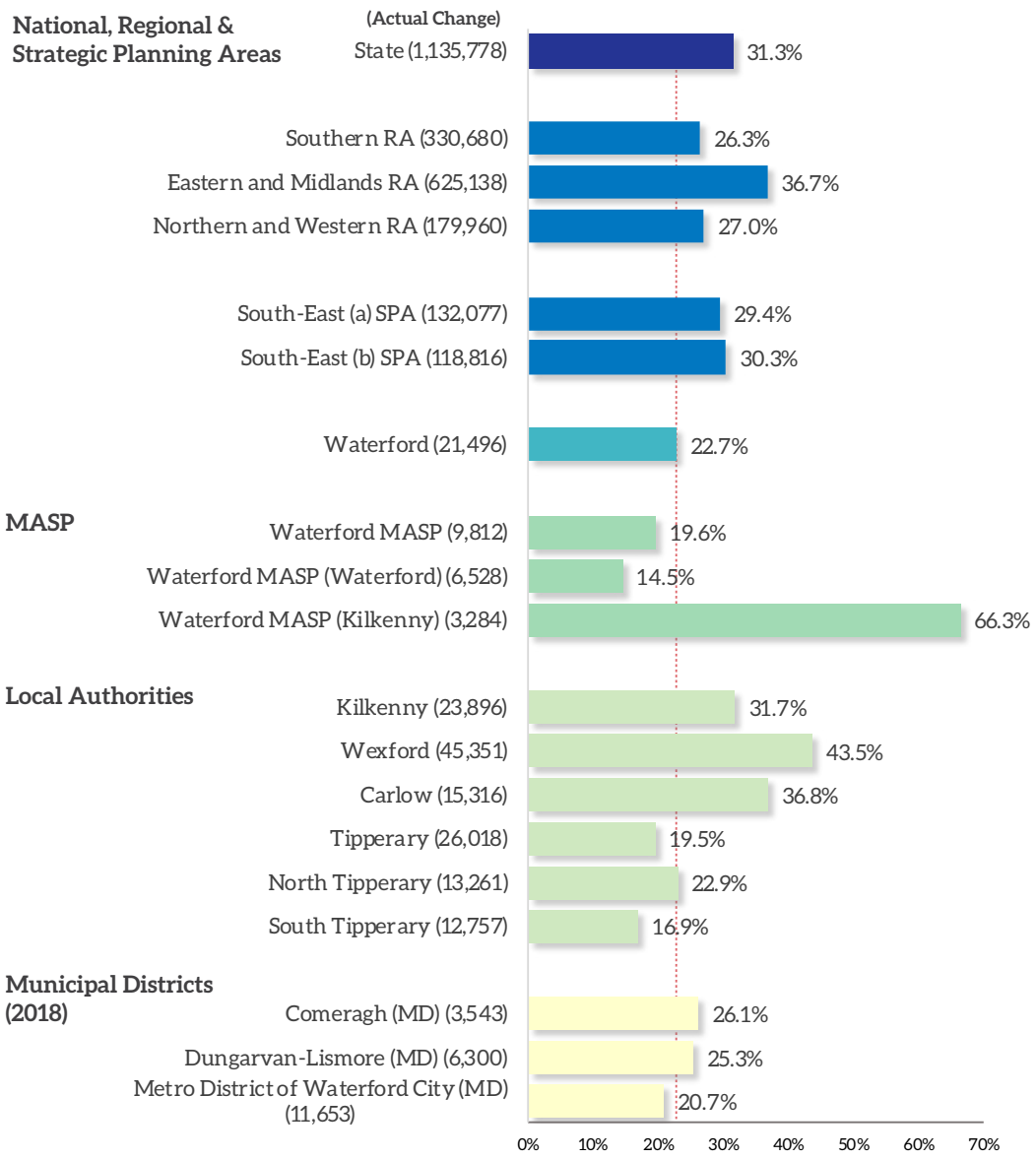


Figure 1.6: Population Change, 1996 to 2016 (Source: CSO)

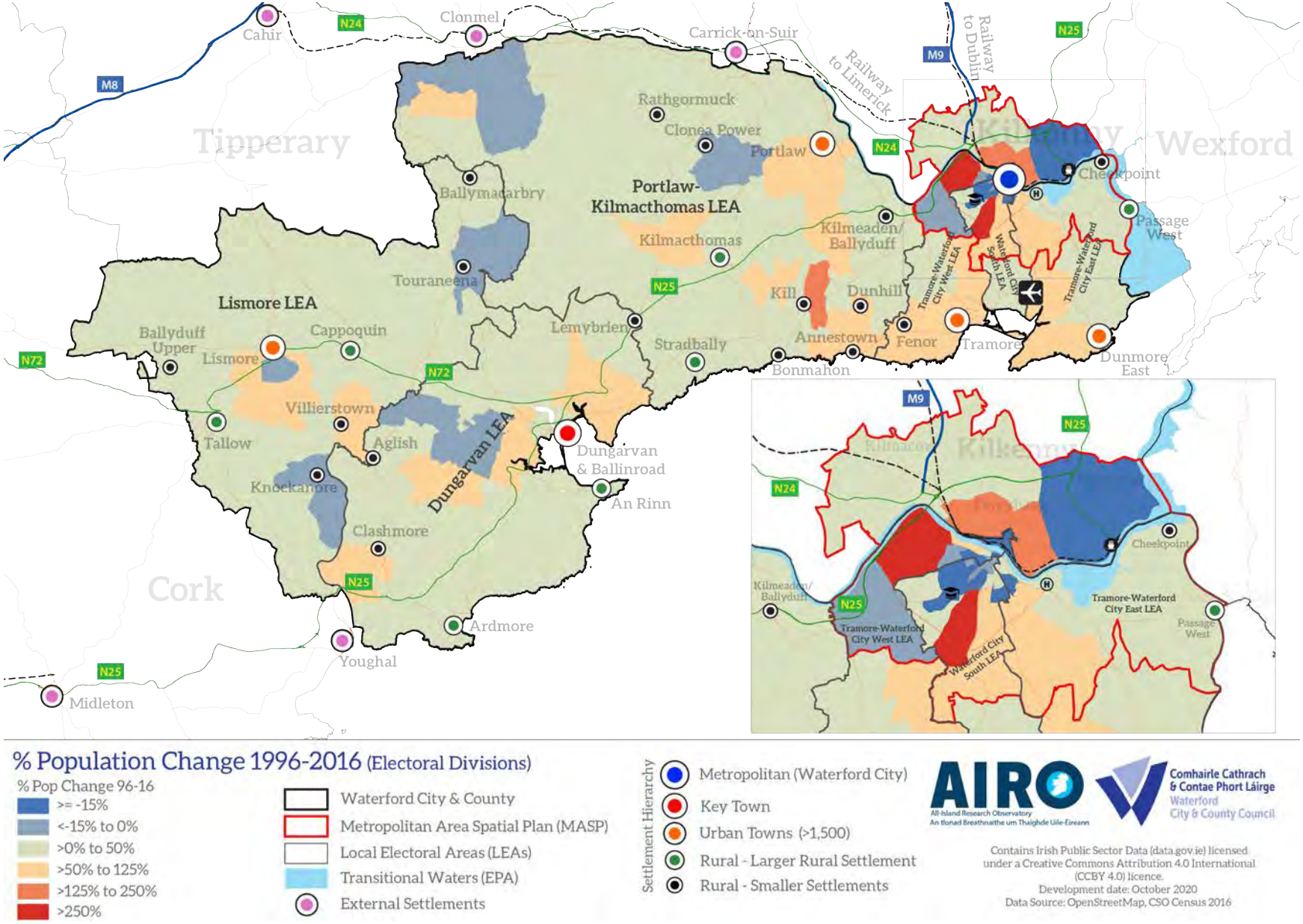
1 being the highest and 26 the lowest # or % of all counties

Change since 1996

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population residing in Waterford City and County was 116,176 and accounted for 2.4% of the State population (4.76m). Over the 20 year period from 1996, the population in Waterford has increased by +22.7% (+21,496). Relative to the State average (+31.3%), this rate of increase is lower than that witnessed in many other counties (8th lowest rate). Highest rates of increase were recorded in Dublin commuter counties such as Meath (+77.7%), Kildare (+64.8%) and Laois (+60%).
- The rate of population increase in Waterford is also lower than the Southern RA average (+26.3) with neighbouring counties of Wexford (+43.5%), Carlow (+36.8%) and Kilkenny (+31.7%) all recording higher levels of growth.
- The map on the opposite page details the population change across Waterford at the ED level. Highest levels of growth are visible in areas south of Waterford City where the population has more than doubled. The rate of change within the Waterford MASP area is quite varied with large increases in population in the Kilkenny area of the MASP (Kilculliheen (+3,600) and then large decreases in the urban core of Waterford City (-25% or -5k).
- In total, a quarter of EDs in Waterford have declined in population over the 20 year period. The map details a small number of rural EDs with declining populations. However, the vast majority (23/33) declining EDs are located in Waterford City centre.

Population Change, 1996 to 2016



Map 1.1: Population Change, 1996 to 2016 (Source: CSO)

Population Change, 2006 to 2016

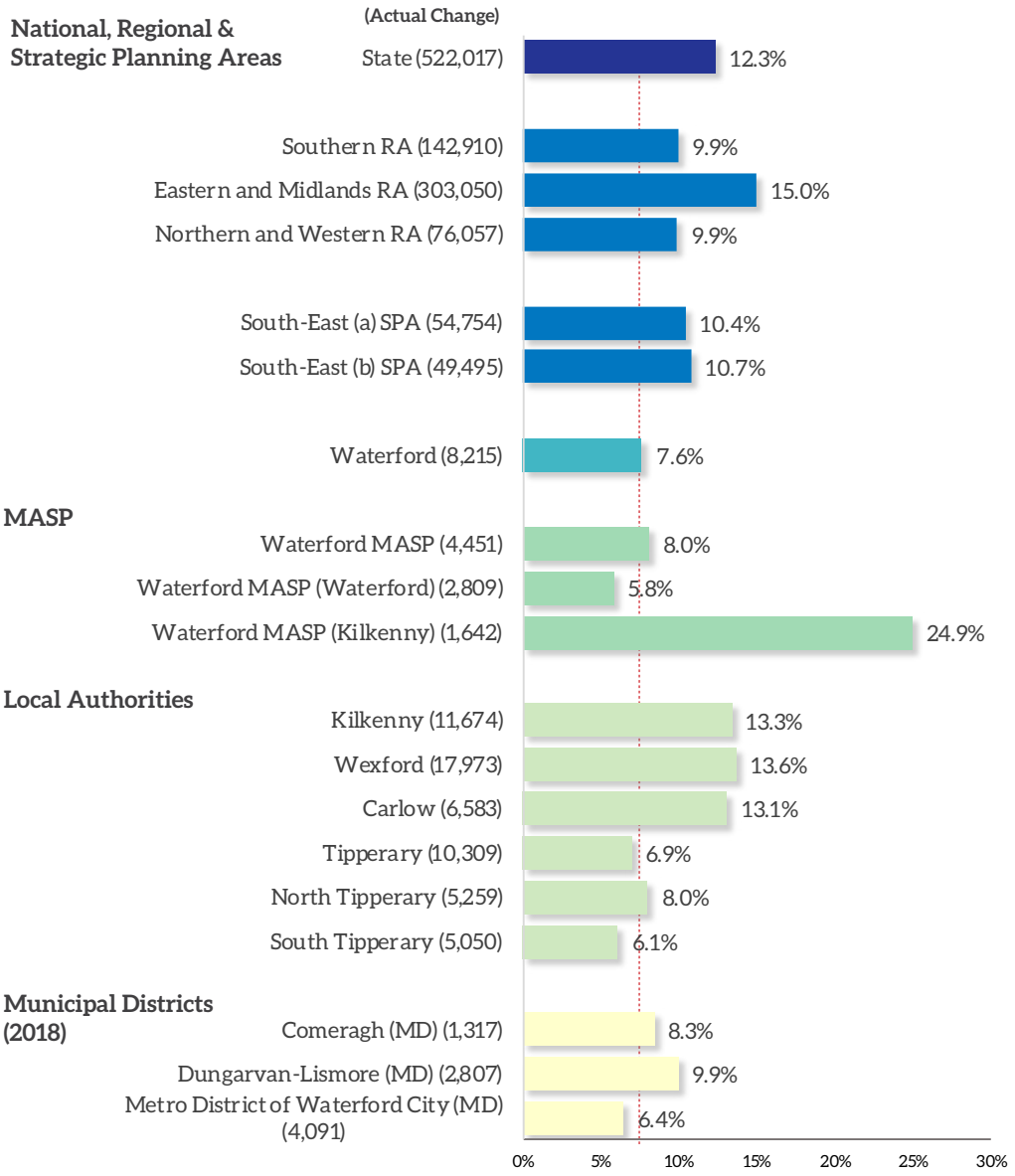
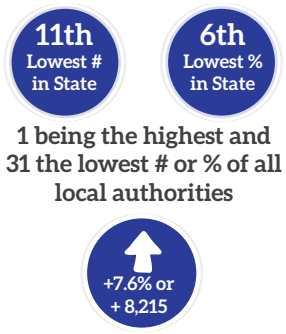


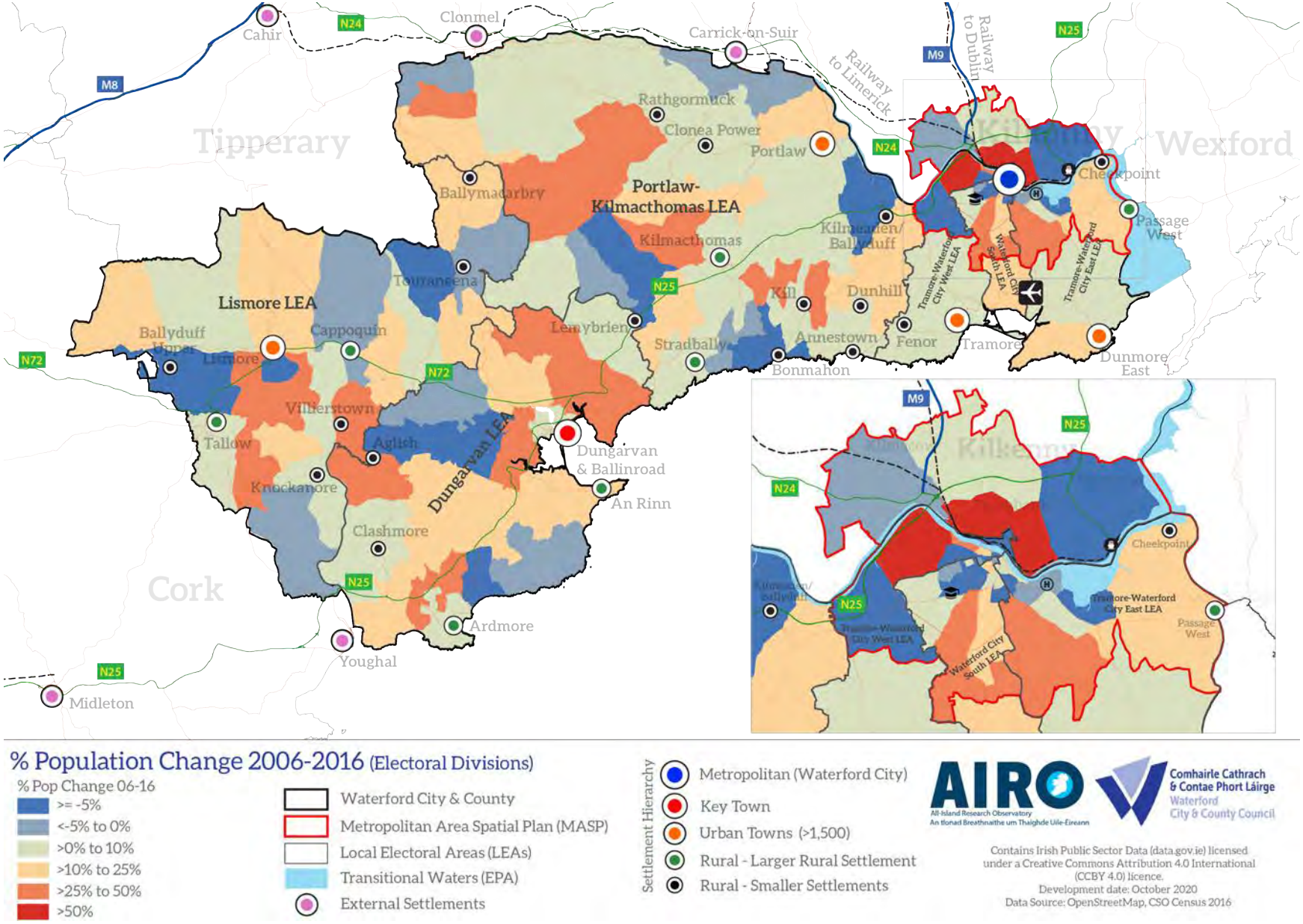
Figure 1.7: Population Change, 2006 to 2016 (Source: CSO)



Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population residing in Waterford City and County was 116,176 and accounted for 2.4% of the State population (4.76m). Over the 10 year period from 2006 the population in Waterford has increased by +7.6% (+8,215). Relative to the State average (+12.3%), this rate of increase is lower than that witnessed in many other counties (6th lowest rate). Highest rates of increase were recorded in Dublin commuter counties such as Laois (+26.3%), Meath (+19.8%) and Kildare (+19.4%).
- The rate of population increase in Waterford is also lower than the Southern RA average (+9.9%) with neighbouring counties of Wexford (+13.6%), Kilkenny (+13.3%) and Carlow (+13.1%) all recording higher levels of growth.
- The map on the opposite page details the population change across Waterford at the ED level. Over the ten year period a total of 20 EDs increased in population by more than a quarter - highest rates of growth were in Gracedieu (+177% or + 1,062) and Kilculliheen (+50% or 1,753) in Waterford City. The Waterford MASP area increased by +8% (+4,451) over this period but again this growth has been primarily driven within the Kilkenny part of the MASP.
- Over a third (34.8%) of Waterford EDs (132) witnessed a decline in population over the ten year period with highest declines in Centre B (-17.7%), Lismore Urban (-15.7%) and Grange North (-15.6%). More than 20 EDs in Waterford City centre declined in population with largest declines in Cleaboy, Kingsmeadow and Grange North.

Population Change, 2006 to 2016



Map 1.2: Population Change, 2006 to 2016 (Source: CSO)

Population Aged 0 to 4, 2016

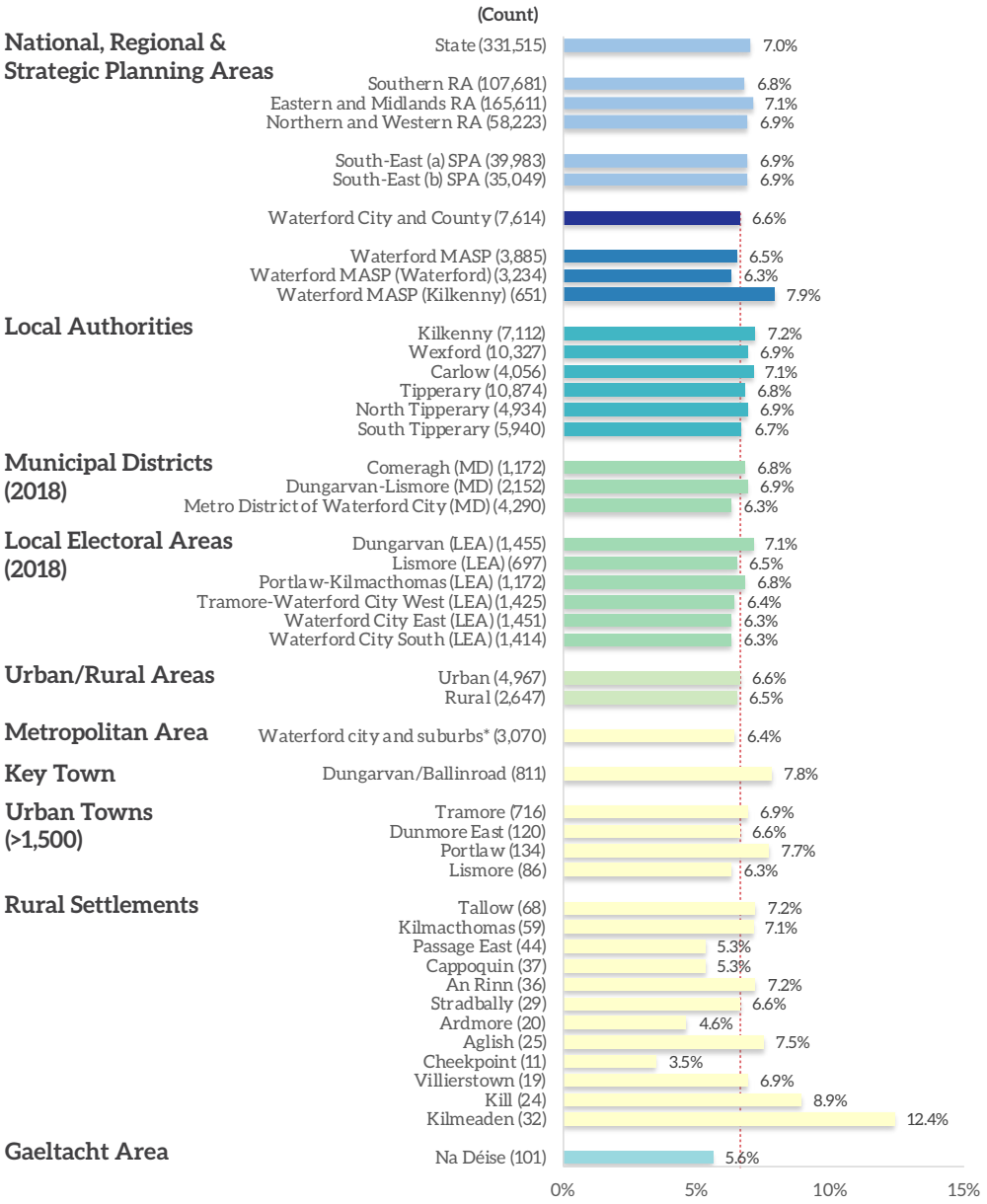


Figure 1.8: Population Aged 0 to 4, 2016 (Source: CSO)

19th Highest # in State

25th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

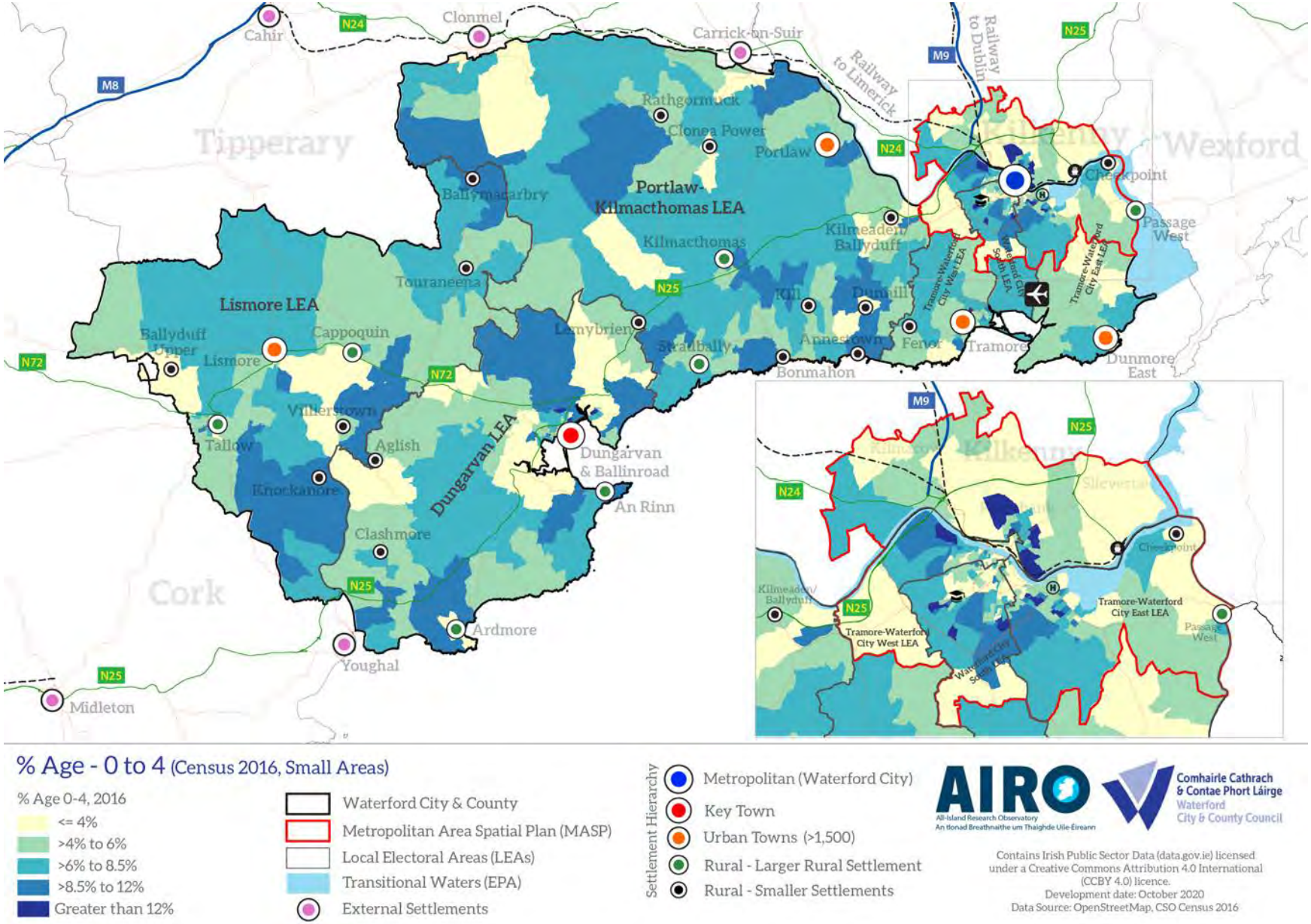
-11.9% or -1,030

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 0-4 residing in Waterford is 7,614 and accounts for 6.6% of the total population within the county and is just lower than the State average (7%). This total is approximately 2.3% of the total population 0-4 residing in the State (331,515) and 7.1% residing in the SRA (107,681).
- The proportion of people (0-4) residing in Waterford (6.6%) is very similar to the Waterford MASP average (6.5%) although the rate is higher in the Kilkenny part of the MASP (7.9%). Across the MDs, the Waterford Metro MD has the lowest rate at 6.3%. The Urban area in Waterford recorded a rate of 6.6% (4,967) and is marginally higher than Rural area with a rate of 6.5% (2,647).
- Of all the settlements detailed in the hierarchy graphic (18), only four settlements have a rate higher than 7.5%: Portlaw (7.7%), Dungarvan/ Ballinroad (7.8%), Kill (8.9%) and Kilmeaden (12.4%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 0-4 are located in the Ferrybank area of Kilkenny and locations on the outskirts of Waterford City.

Population Aged 0 to 4, 2016



Map 1.3: Population Aged 0 to 4, 2016 (Source: CSO)

Population Aged 5 to 12, 2016

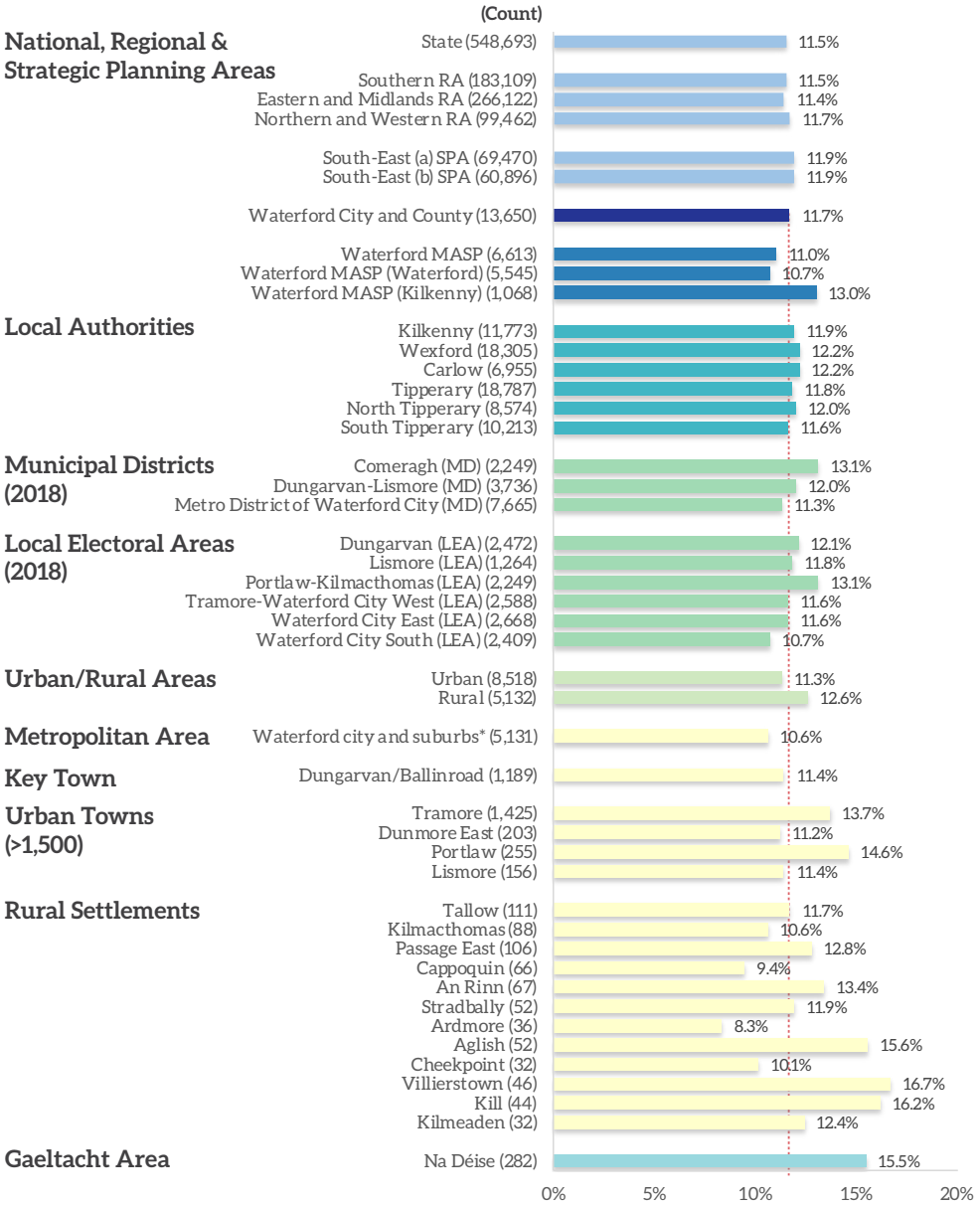


Figure 1.9: Population Aged 5 to 12, 2016 (Source: CSO)

19th Highest # in State

22nd Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

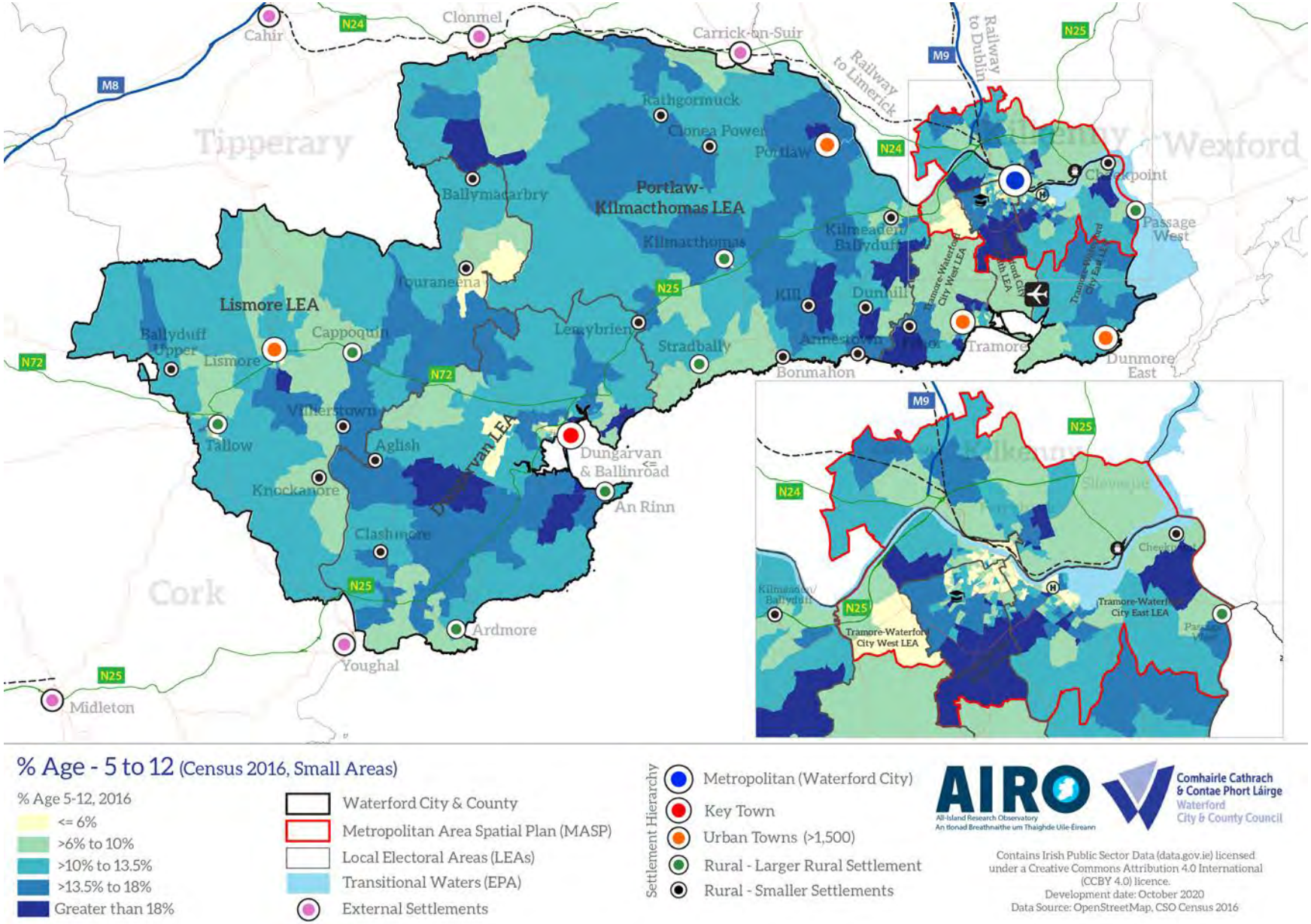
+6.4% or +822

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 5-12 residing in Waterford is 13,650 and accounts for 11.7% of the total population within the county and is just higher than the State average (11.5%). This total is approximately 2.5% of the total population 5-12 residing in the State (548,693) and 7.5% residing in the SRA (183,109).
- The proportion of people (5-12) residing in Waterford (11.7%) is higher than the Waterford MASP average (11%). Across the MDs, the Waterford Metro MD has the lowest rate at 11.3%. Urban areas in Waterford recorded a rate of 11.3% (8,518) and is lower than Rural areas with a rate of 12.6% (5,132).
- Of all the settlements detailed in the hierarchy graphic (18), three settlements have a rate in excess of 15% aged 5-12: Aglish (15.6%), Kill (16.2%) and Villierstown (16.7%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 5-12 are primarily located in areas to the south of Waterford City.

Population Aged 5 to 12, 2016



Map 1.4: Population Aged 5 to 12, 2016 (Source: CSO)

Population Aged 13 to 17, 2016

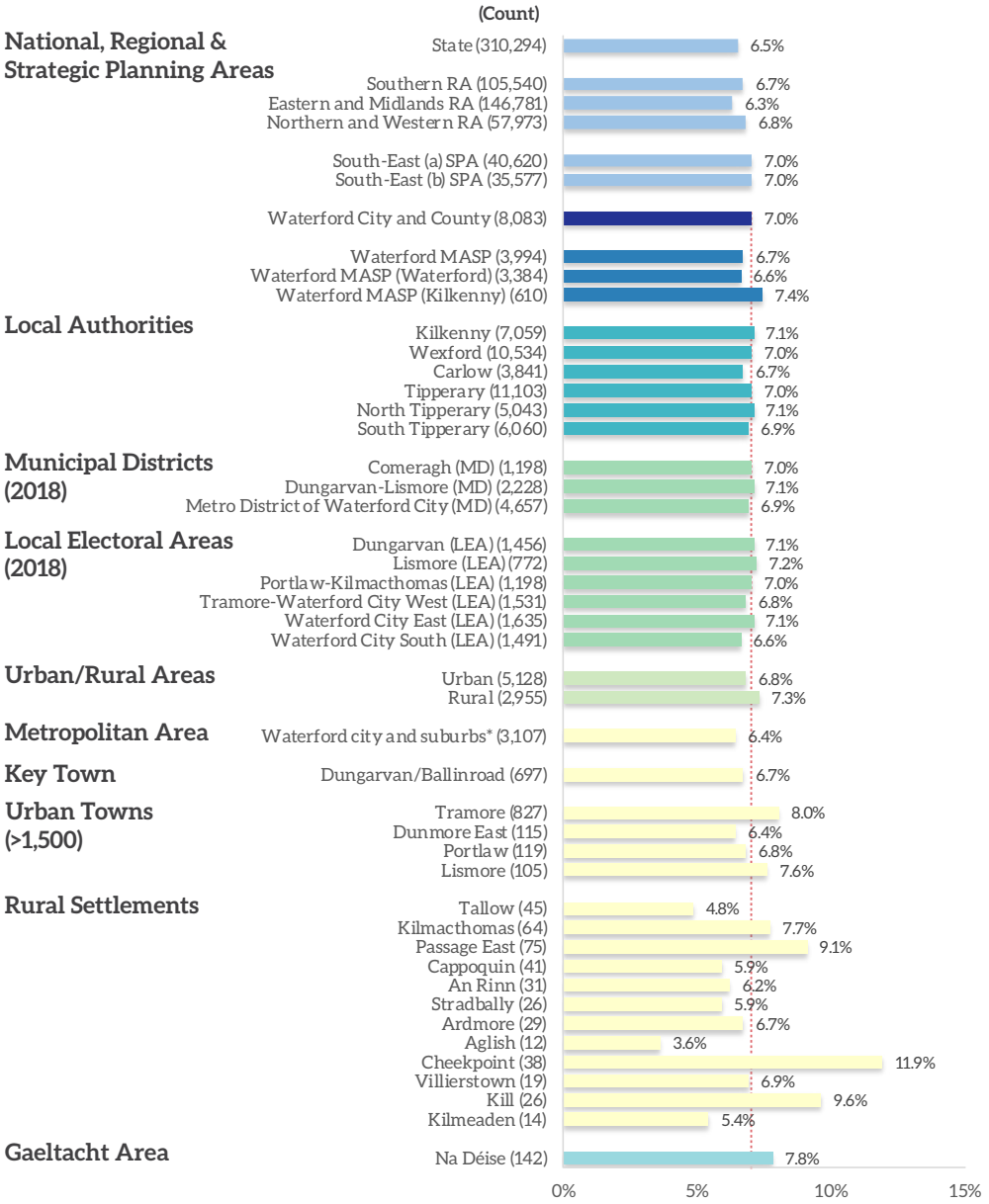
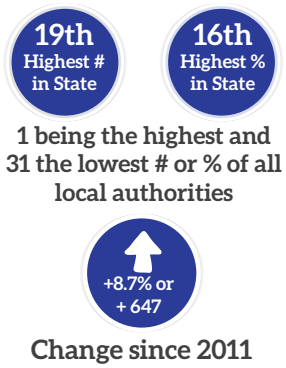


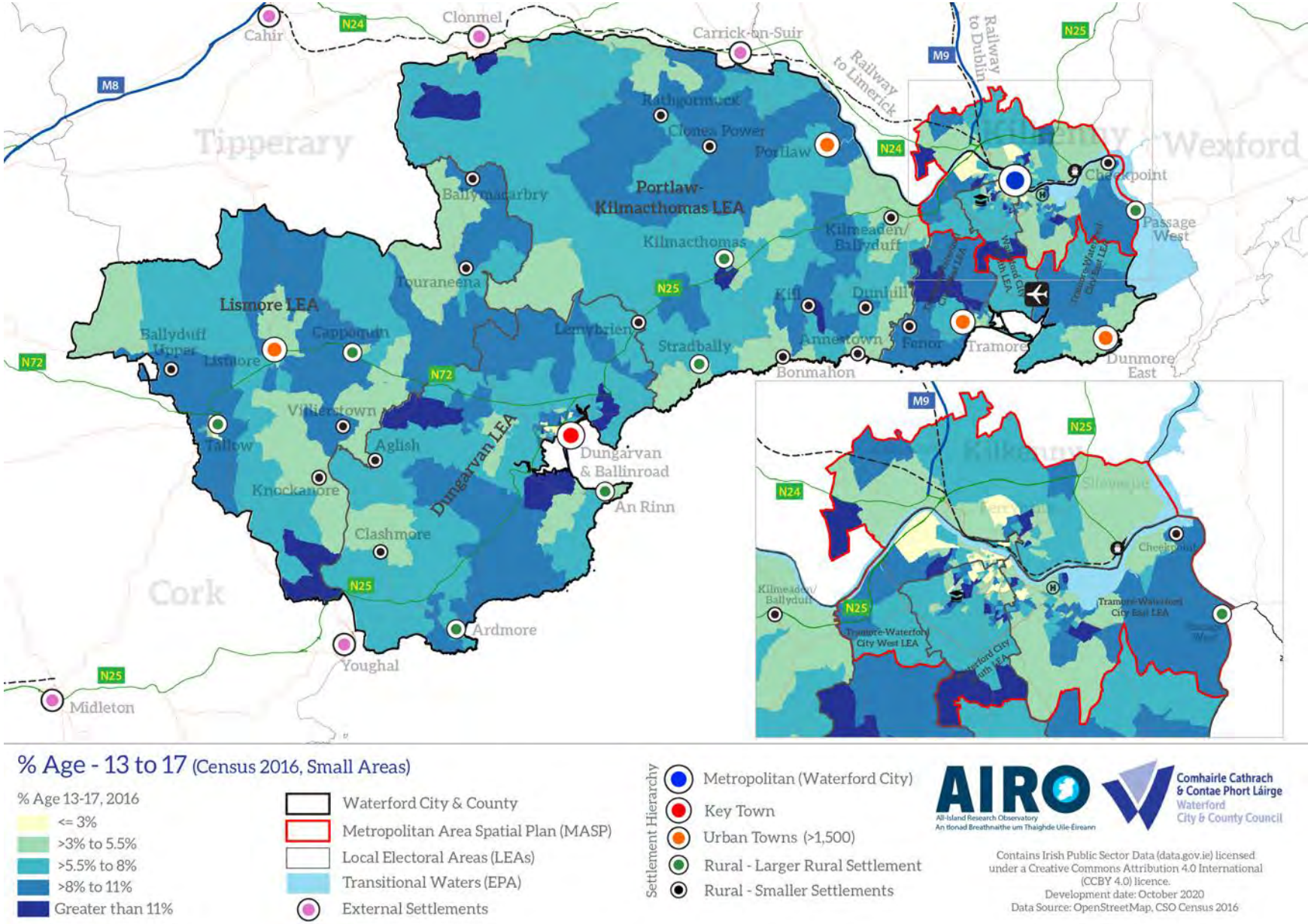
Figure 1.10: Population Aged 13 to 17, 2016 (Source: CSO)



Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 13-17 residing in Waterford is 8,083 and accounts for 7% of the total population within the county and is just higher than the State average (6.5%). This total is approximately 2.6% of the total population 13-17 residing in the State (310,294) and 7.7% residing in the SRA (105,540).
- The proportion of people (13-17) residing in Waterford (7%) is very similar to the Waterford MASP average (6.7%) although the rate is higher in the Kilkenny part (7.4%). Across the MDs, the Waterford Metro MD has the lowest rate at 6.9%. Urban areas in Waterford recorded a rate of 6.8% (5,128) and is considerably lower than Rural areas with a rate of 7.3% (2,955).
- Of all the settlements detailed in the hierarchy graphic (18), three settlements have a rate in excess of 9% aged 13-17: Passage East (9.1%), Kill (9.6%) and Villierstown (11.9%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 13-17 are primarily located in areas on the periphery of Waterford City and high rates also evident in the Ferrybank area in Kilkenny.

Population Aged 13 to 17, 2016



Map 1.5: Population Aged 13 to 17, 2016 (Source: CSO)

Population Aged 0 to 24, 2016

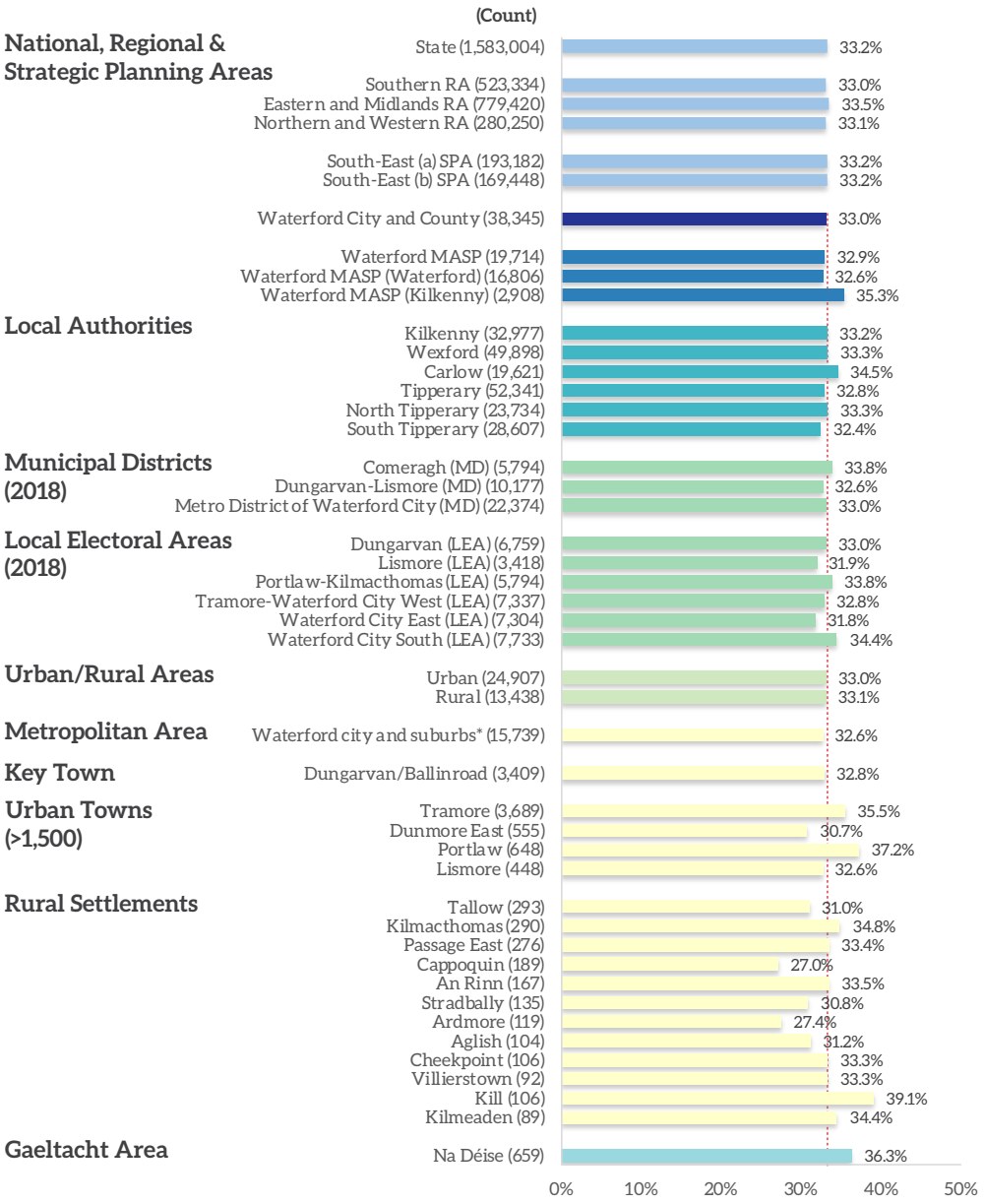


Figure 1.11: Population Aged 0 to 24, 2016 (Source: CSO)

19th Highest # in State

22nd Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

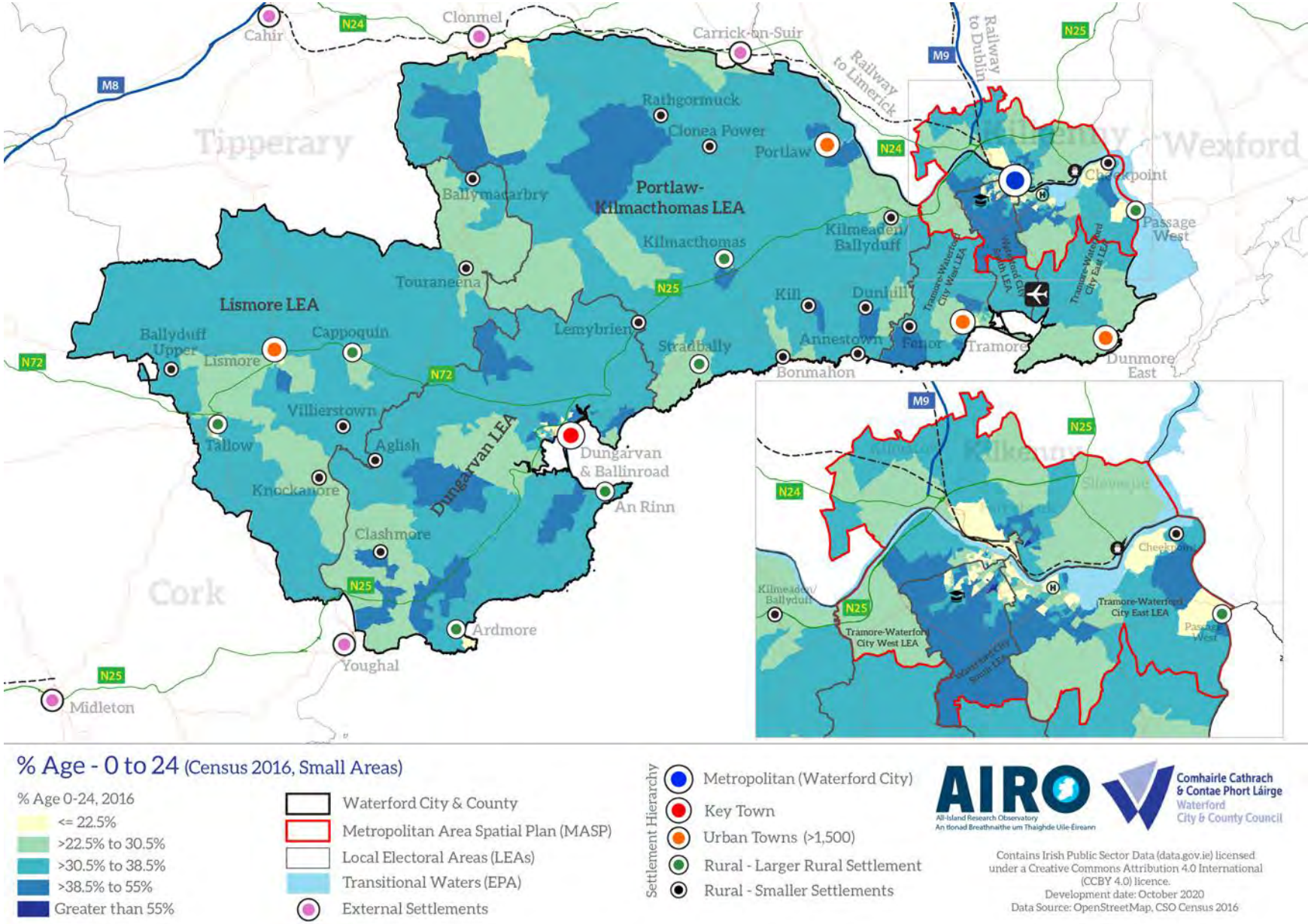
-0.5% or -181

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 0-24 residing in Waterford is 38,345 and accounts for 33% of the total population within the county and is just lower than the State average (33.2%). This total is approximately 2.4% of the total population 13-17 residing in the State (1,583,004) and 7.3% residing in the SRA (523,334).
- The proportion of people (0-24) residing in Waterford (33%) is very similar to the Waterford MASP average (32.9%). Across the MDs, the Dungarvan-Lismore MD has the lowest rate at 32.6%. Urban areas in Waterford recorded a rate of 33% (24,907) and are the same as Rural areas with a rate of 33.1% (13,438).
- Of all the settlements detailed in the hierarchy graphic (18), three settlements have rates in excess of 35% aged 0-24: Tramore (35.5%), Portlaw (37.2%) and Kill (39.1%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 0-24 are primarily located in the south and south-west areas of Waterford City.

Population Aged 0 to 24, 2016



Map 1.6: Population Aged 10 to 24, 2016 (Source: CSO)

Population Aged 15 to 64, 2016

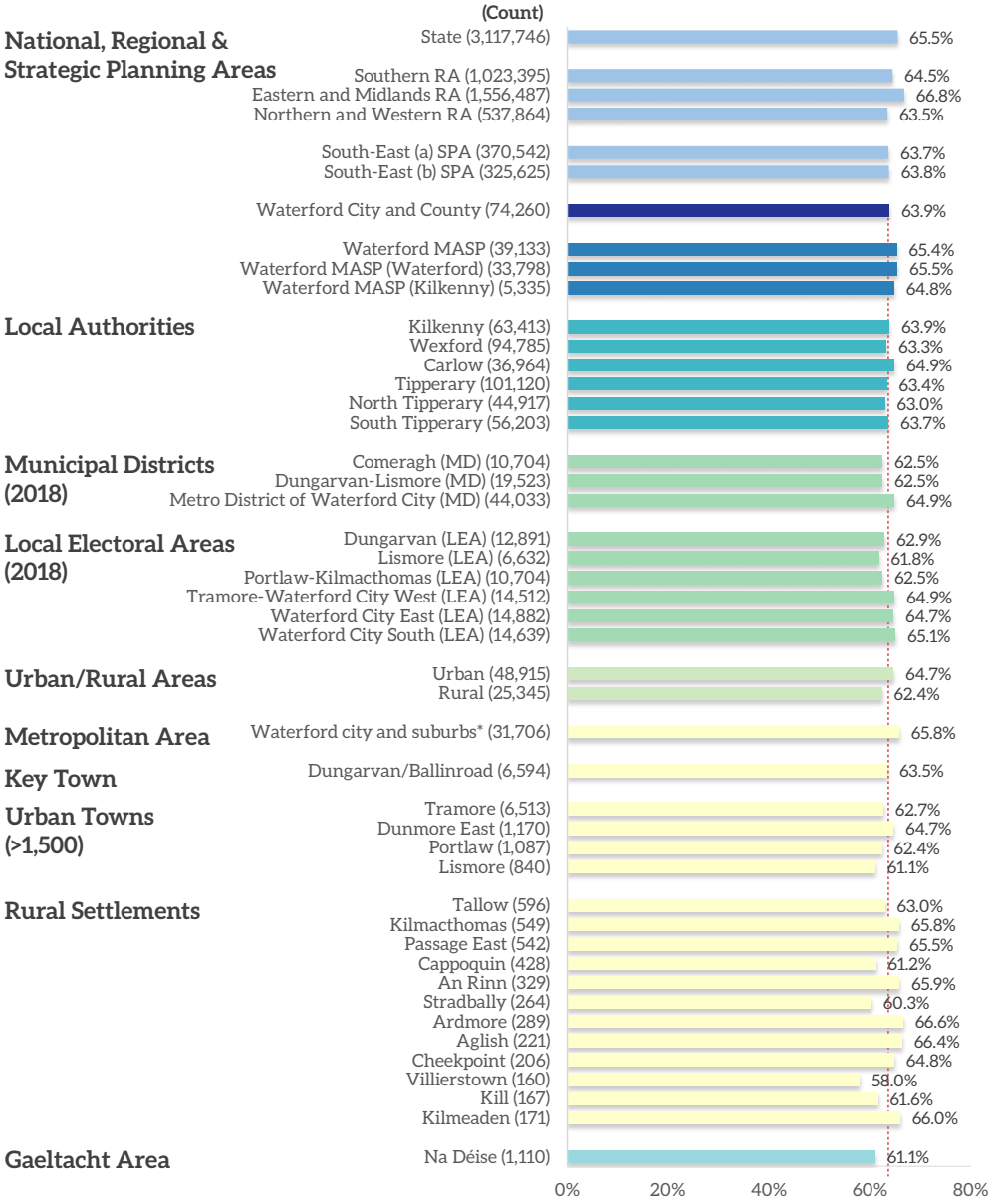


Figure 1.12: Population Aged 15 to 64, 2016 (Source: CSO)

19th Highest # in State

15th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

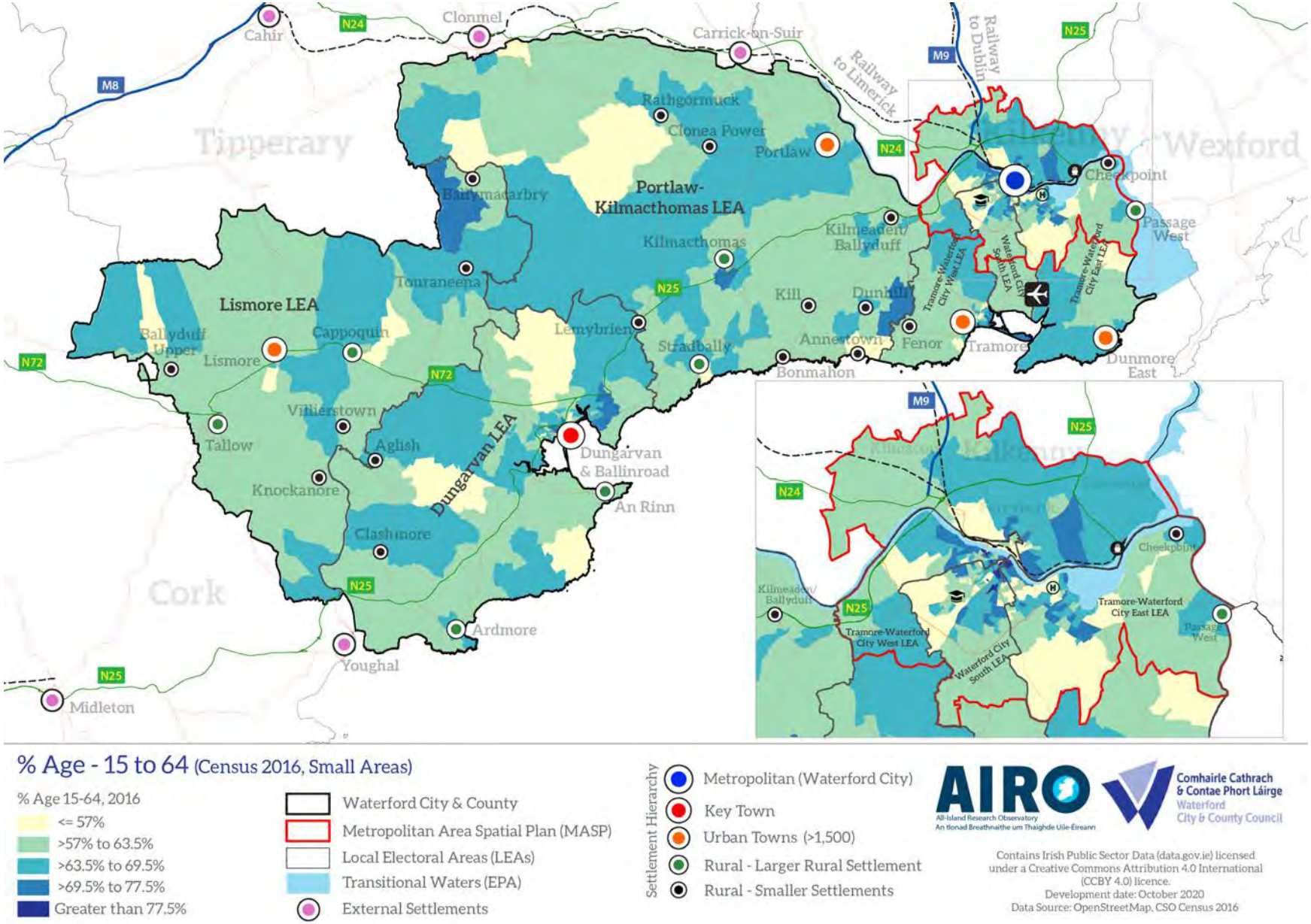
- 0.2% or - 176

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 15-64 residing in Waterford is 74,260 and accounts for 63.9% of the total population within the county and is lower than the State average (65.5%). This total is approximately 2.4% of the total population 15-64 residing in the State (3,117,746) and 7.3% residing in the SRA (1,023,395).
- The proportion of people (15-64) residing in Waterford (63.9%) is lower than the Waterford MASP average (65.4%). Across the MDs, the Waterford Metro MD has the highest rate at 64.9%. Urban areas in Waterford recorded a rate of 64.7% (48,915) while Rural areas recorded a rate of 62.4% (25,345).
- Of all the settlements detailed in the hierarchy graphic (18), five settlements have more than 1,000 resident persons aged 15-64: Waterford City and Suburbs (31,706 or 65.8%), Dungarvan/Ballinroad (6,594 or 63.5%), Tramore (6,513 or 62.7%), Dunmore East (1,170 or 64.7%), and Portlaw (1,087 or 62.4%). The highest rate across the hierarchy is Aglish at 66.6%. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 15-64 are primarily located in the central areas of Waterford City and in areas to the south-west such as Ballinakill and Ballygunner.

Population Aged 15 to 64, 2016



Map 1.7: Population Aged 15 to 64, 2016 (Source: CSO)

Population Aged 65 and Over, 2016

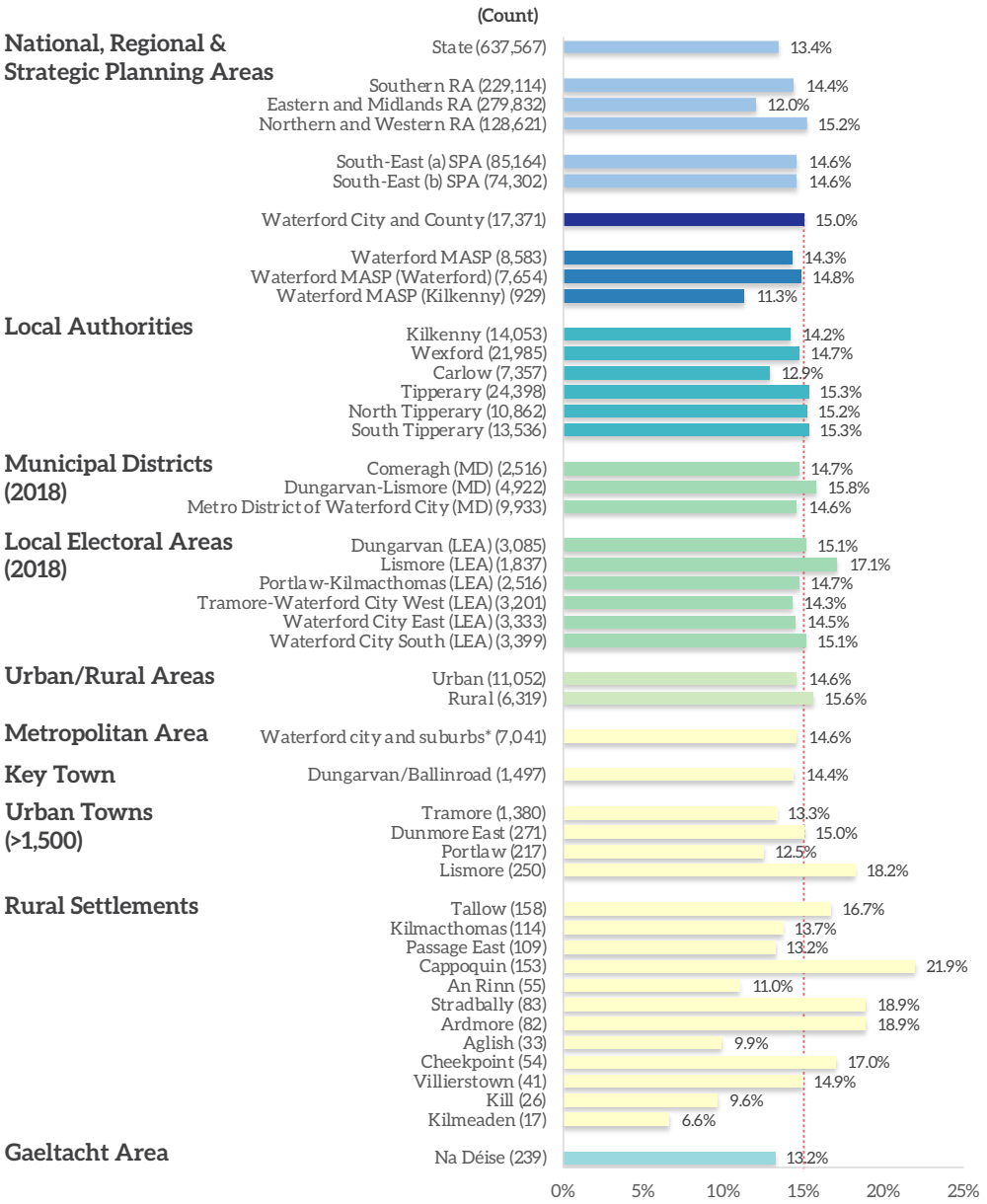


Figure 1.13: Population Aged 64 and over, 2016 (Source: CSO

18th Highest # in State

9th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

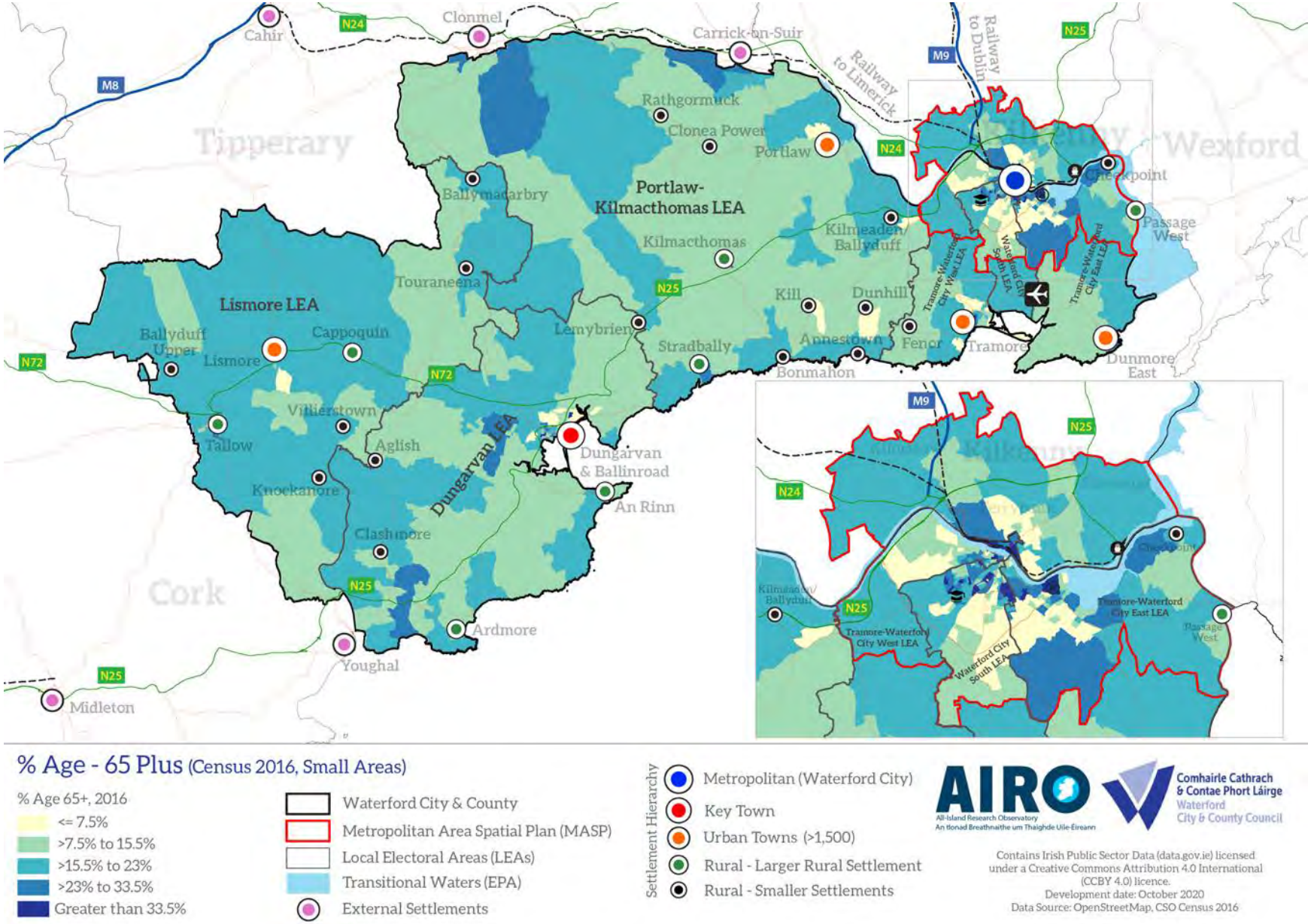
+17.5% or + 2,592

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population aged 65+ residing in Waterford is 17,371 and accounts for 15% of the total population within the county and is higher than the State average (13.4%). This total is approximately 2.7% of the total population 65+ residing in the State (637,567) and 7.6% residing in the SRA (229,114).
- According to Census 2016, the proportion of the population aged 65+ residing in Waterford is 15% and is higher than Waterford MASP (14.3%) - note that the Kilkenny part of the MASP is much lower at 11.3%. Across the MDs, the Dungarvan-Lismore MD has the highest rate at 15.8%. Urban areas in Waterford recorded a rate of 14.6% (11,052) while Rural areas recorded a much higher rate of 15.6% (6,319).
- There is quite a variation in rates across the settlement hierarchy. Of all the settlements detailed in the hierarchy graphic (18), four settlements have rates in excess of 18% aged 65+: Lismore (18.2%), Stradbally (18.9%), Ardmore (18.9%) and Cappoquin (21.9%). In contrast, Aglish (9.9%), Kill (9.6%) and Kilmeaden (6.6%) have much lower rates. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates of population aged 65+ are primarily located in the central areas of Waterford City and areas just to the north on the Kilkenny part of the urban centre.

Population Aged 65 and Over, 2016



Map 1.8: Population Aged 65 and over, 2016 (Source: CSO)

Dependency Rate, 2016

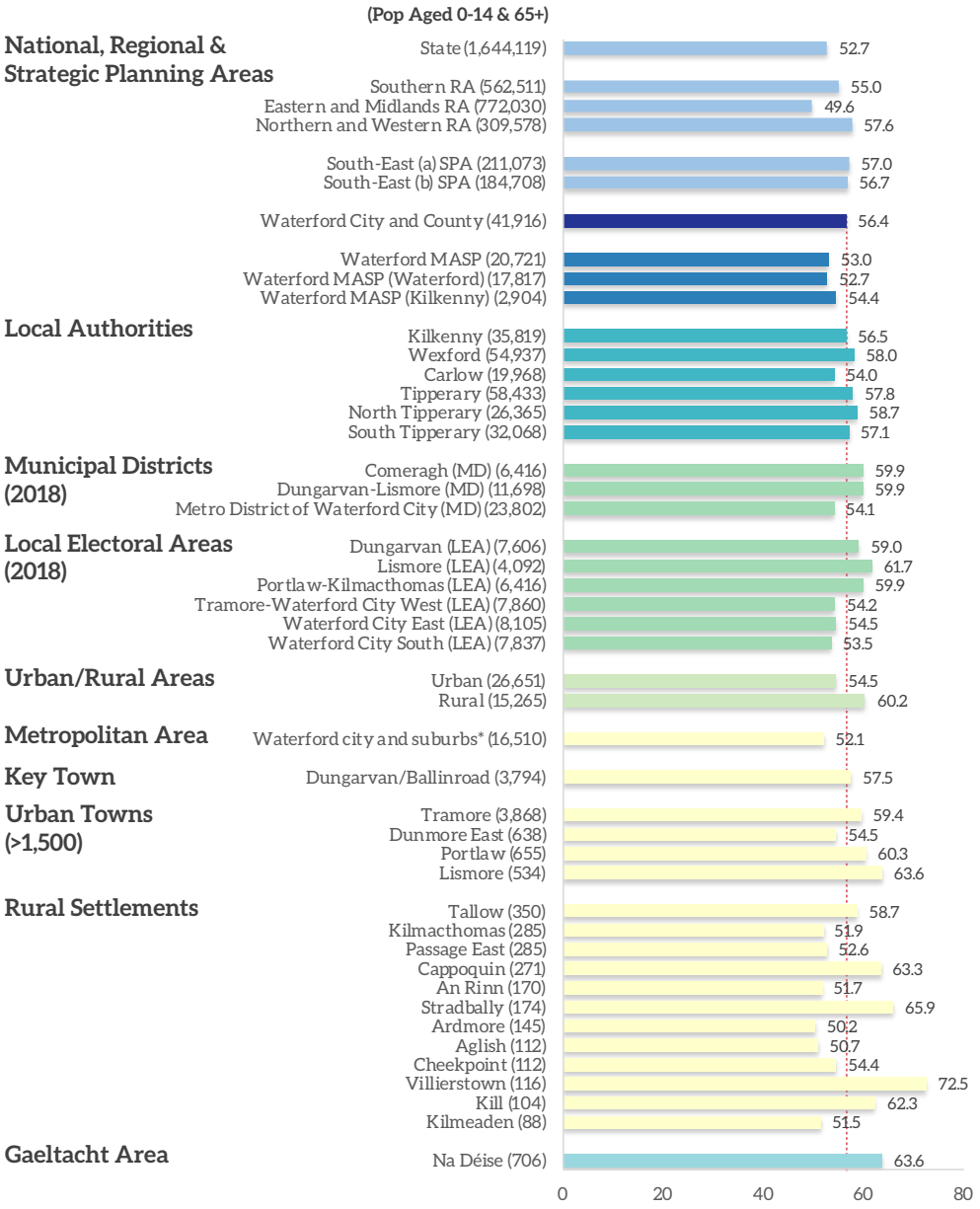


Figure 1.14: Dependency Ratio, 2016 (Source: CSO)

19th Highest # in State

17th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

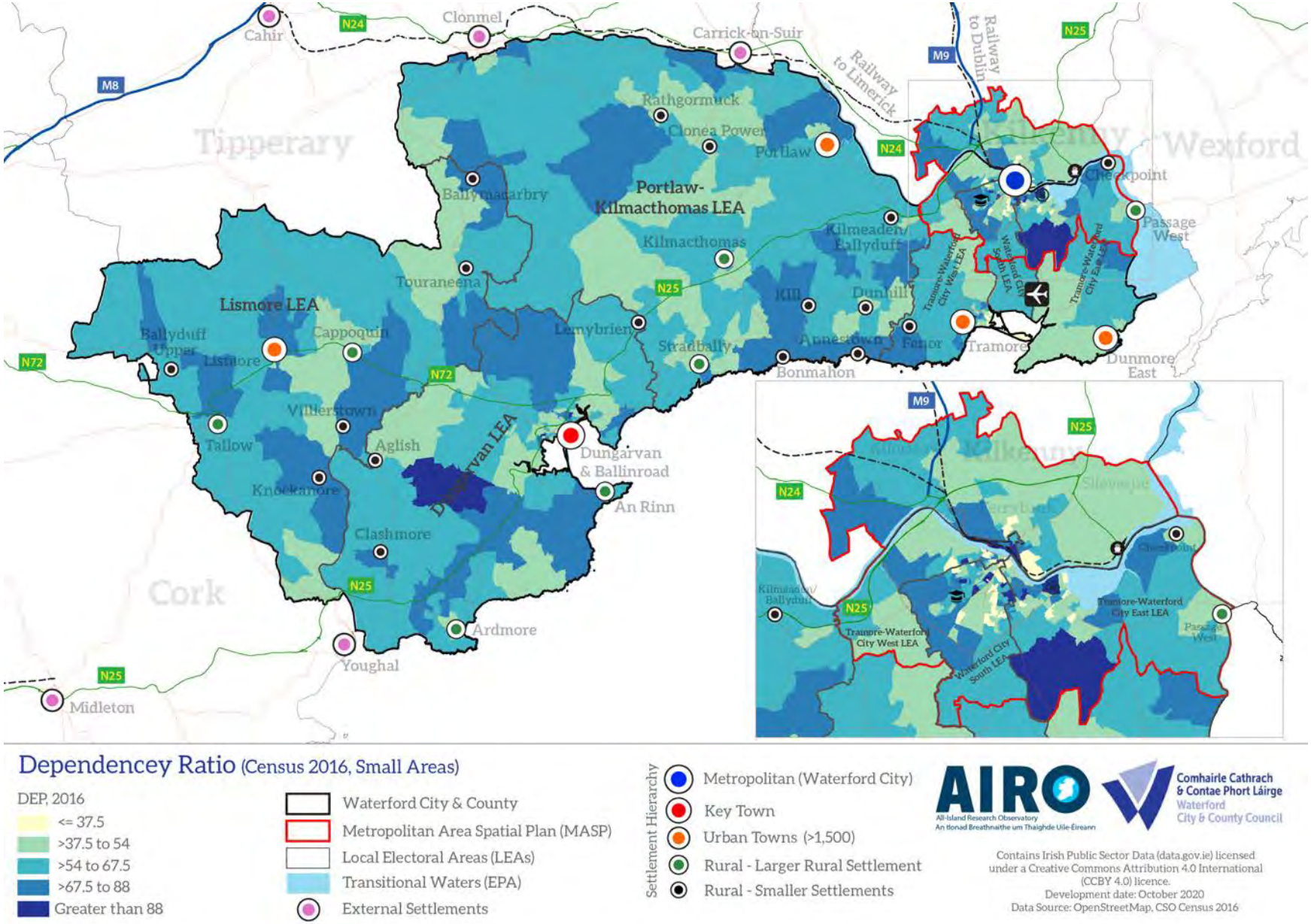
+4.1% or + 1,657

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- Waterford's age dependency ratio, which is the proportion of the population aged 0 to 14 and over 65 as a percentage of the total population and is significantly above the national dependency rate of 52.7%. The total dependent population in Waterford represents approximately 2.5% of the total dependants in the State (1,644,119) and 7.5% residing in the SRA (562,511).
- The Waterford county dependency rate (56.4%) is higher than the Waterford MASP rate of 53%. Across the MDs, both Comeragh MD and Dungarvan-Lismore (MD) have a dependency rate of 59.9%, well above the Waterford Metro MD dependency rate of 54.1% - an area with a much higher working population (15-64). Urban areas in Waterford recorded a rate of 54.5% (26,651) while Rural areas recorded much higher rate of 60.2% (15,265).
- Of all the settlements detailed in the hierarchy graphic (18), six settlements have a dependent population greater than 500: Waterford City and Suburbs (16,510 or 52.1%), Dungarvan/Ballinroad (3,794 or 57.5%), Tramore (3,868 or 59.4%), Dunmore East (638 or 54.5%), Portlaw (655 or 60.3%) and Lismore (534 or 60.3%). The highest rate across the hierarchy is Villierstown at 72.5%. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest dependency rates are primarily located in the central areas of Waterford City and areas close to Waterford Hospital.

Dependency Ratio, 2016



Map 1.9: Dependency Ratio, 2016 (Source: CSO)

Nationality: Non-Irish Nationals, 2016

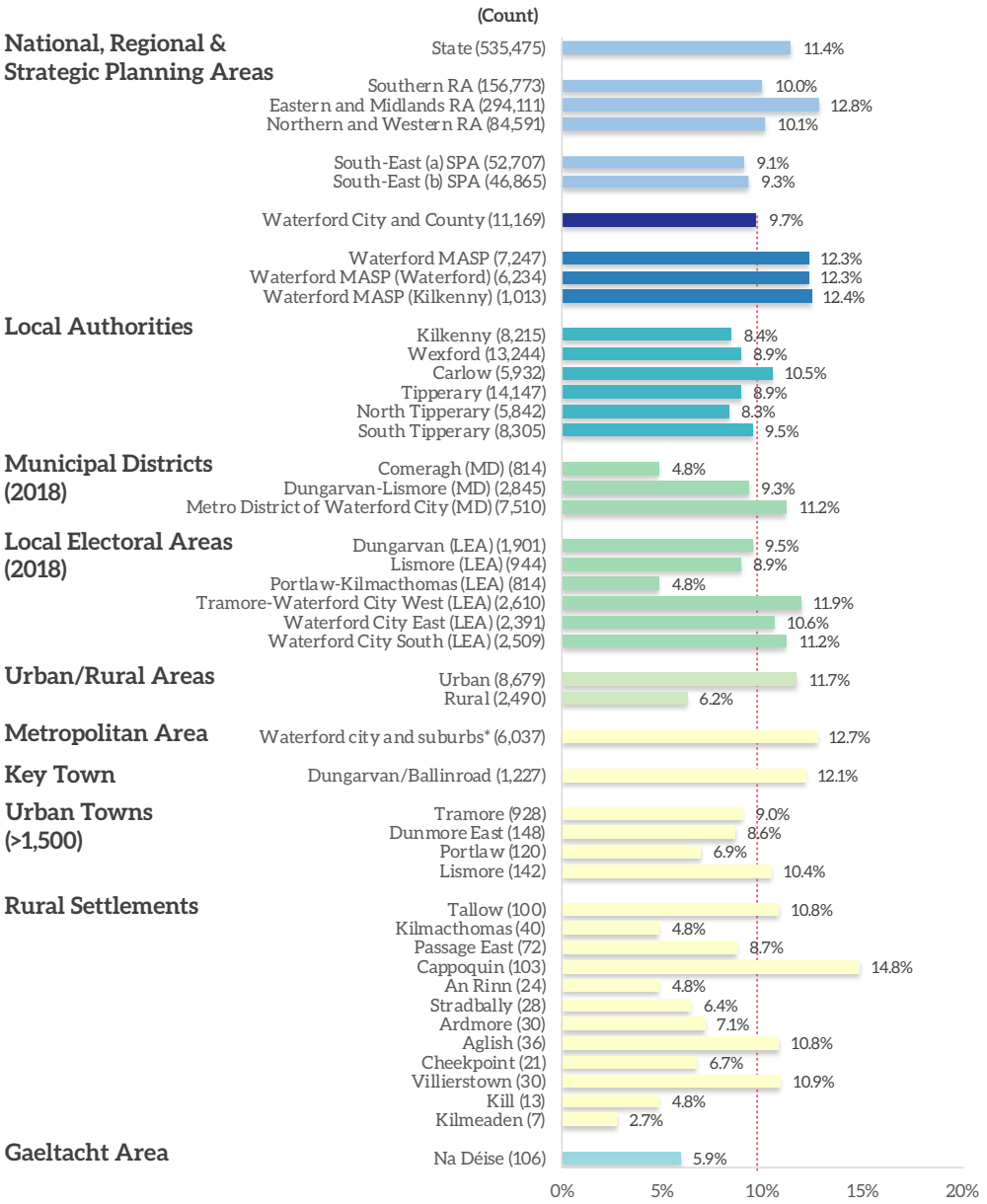


Figure 1.15: Nationality - Non-Irish nationals, 2016 (Source: CSO)

19th Highest # in State

21st Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

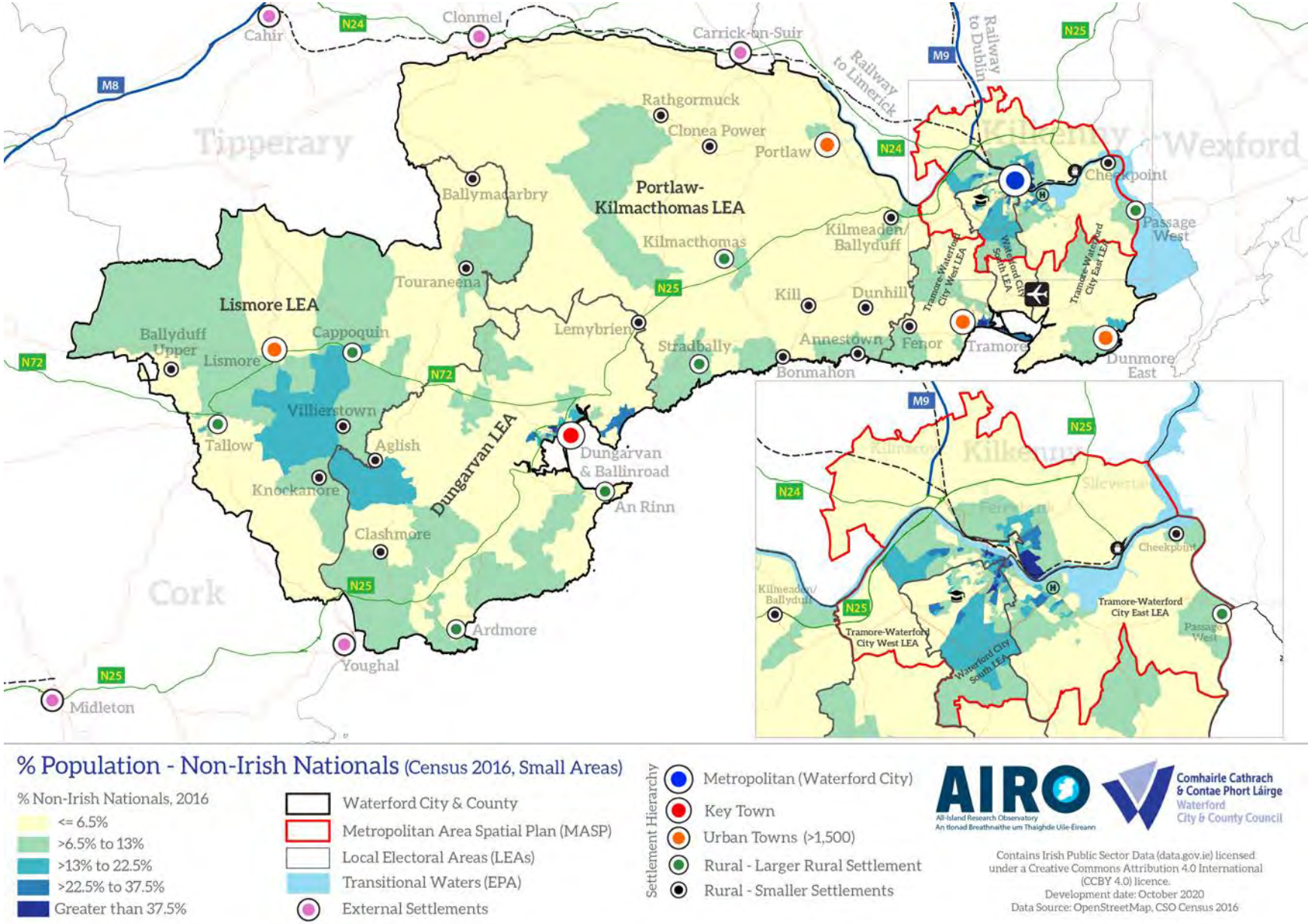
-3.3% or -383

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total Non-Irish National population in Waterford is 11,169 and accounts for 9.7% of the total population within the State. This is well below the State average of 11.4%. This total is approximately 2.1% of the total Non-Irish Nationals residing within the State (535,475) and 7.1% residing in the SRA (156,773).
- The proportion of Non-Irish Nationals in Waterford is 9.7% and considerably lower than the Waterford MASP rate of 12.3% - a far more urban and multi-cultural geographical area. Across the MDs, there is a high level of variance with Waterford Metro MD (11.2%) and Dungarvan-Lismore 9.3%) with much higher rates than the Comeragh MD (4.8%). The Urban area rate in Waterford was recorded at 11.7% (8,679) and is far higher than in Rural areas with a rate of 6.2% (2,490).
- Across the settlement hierarchy there is a very wide variation but in general rural settlements have lower rates than larger urban areas. Of all the settlements detailed in the hierarchy graphic (18), seven settlements have >10% Non-Irish National population: Waterford city and suburbs (12.7%), Dungarvan/Ballinroad (12.1%), Lismore (10.4%), Tallow (10.8%), Cappoquin (14.8%), Aglish (10.8%) and Villierstown (10.9%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in the central areas of Waterford City and areas such as Kilculiheen to the north of the city.

Nationality: Non-Irish Nationals, 2016



Map 1.10: Nationality - Non-Irish nationals, 2016 (Source: CSO)

Nationality: UK Nationals, 2016

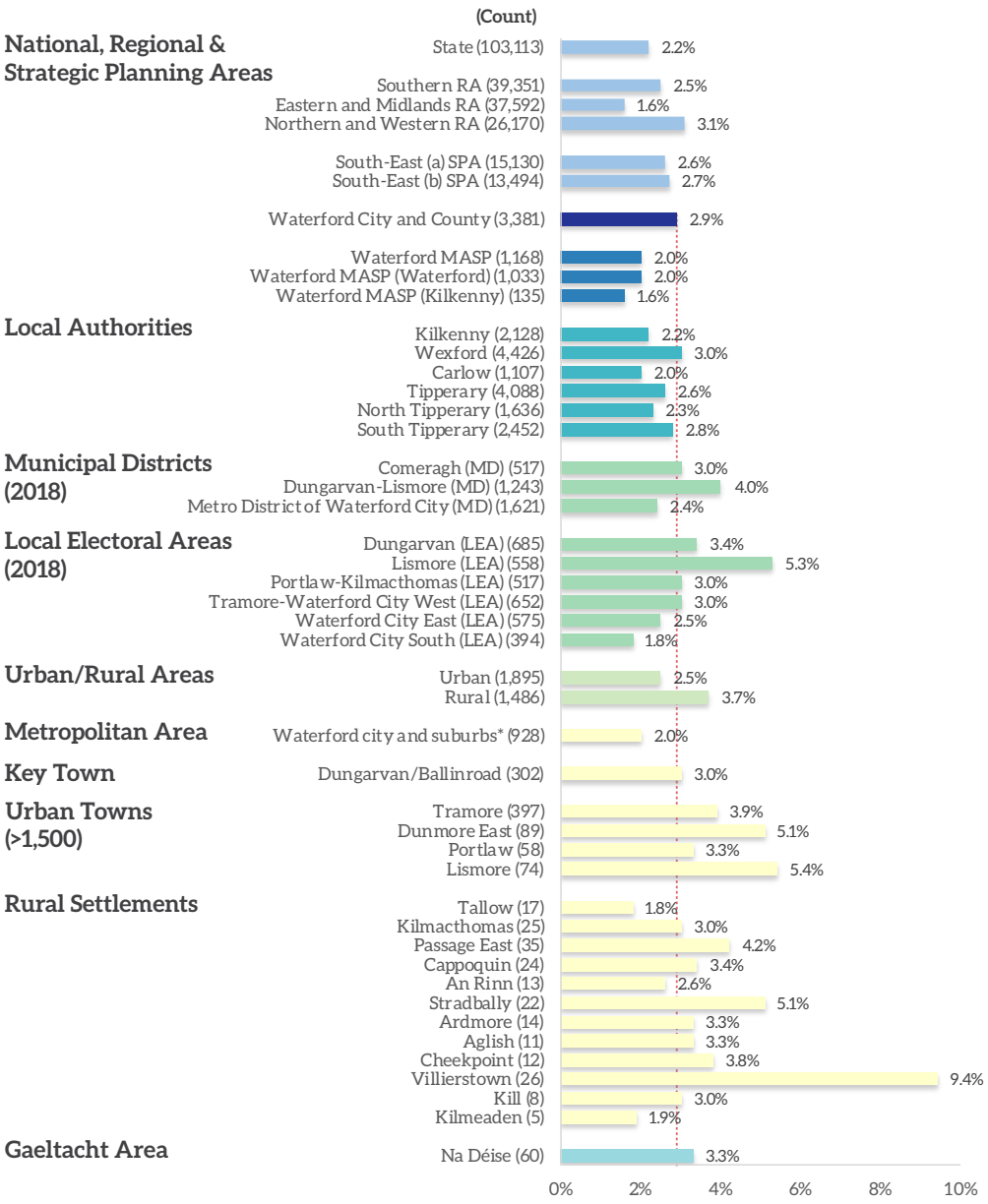


Figure 1.16: Nationality - UK nationals, 2016 (Source: CSO)

14th Highest # in State

8th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

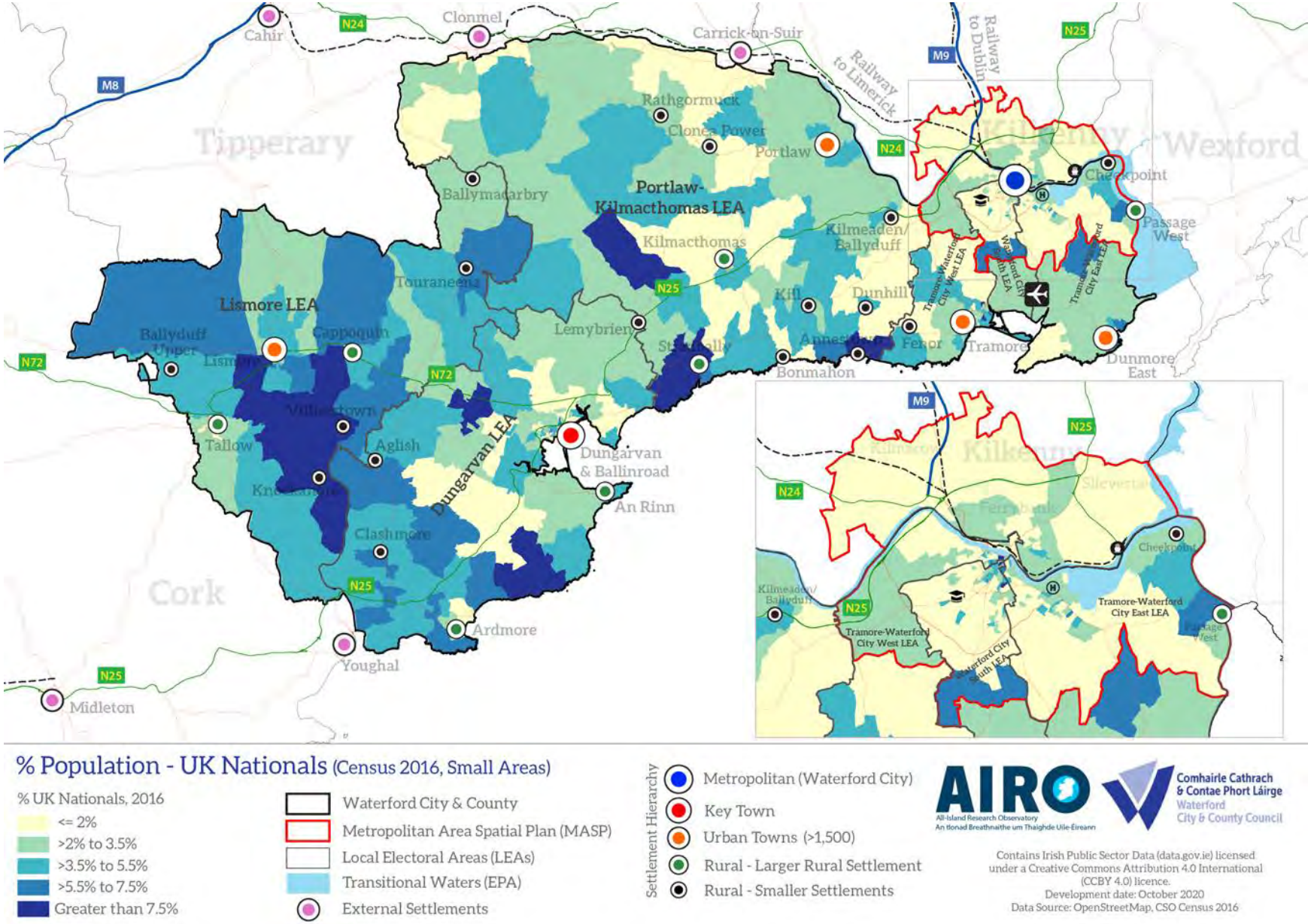
-3.3% or -383

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of UK Nationals in Waterford is 3,381 and accounts for 2.9% of the total population within the county - above the State average (2.2%). This total is approximately 3.3% of the total UK Nationals residing within the State (103,113) and 8.6% residing in the SRA (39,351).
- The proportion of UK Nationals in Waterford is 2.9% and is higher than the Waterford MASP rate (2%). Across the MDs, Dungarvan-Lismore (4%) has a higher rate then Comeragh MD (3%) and Waterford Metro MD (2.4%). Urban areas in Waterford recorded a rate of 2.5% (1,895) and is lower than Rural areas with a rate of 3.7% (1,486).
- Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than 5% of UK Nationals: Dunmore East (5.1%), Lismore (5.4%), Stradbally (5.1%) and Villierstown (9.4%). The highest rate across the hierarchy is Villierstown at 9.4% but should be noted that this a very small settlement with a total UK population of 26. The map on the opposite page details the distribution at the SA level across Waterford.
- The map details that the highest rates of UK Nationals are located in the west of the county and along coastal areas. Highest rates are within SAs in the Lismore and Dungarvan LEAs.

Nationality: UK Nationals, 2016



Map 1.11: Nationality - UK nationals, 2016 (Source: CSO)

Nationality: Polish Nationals, 2016

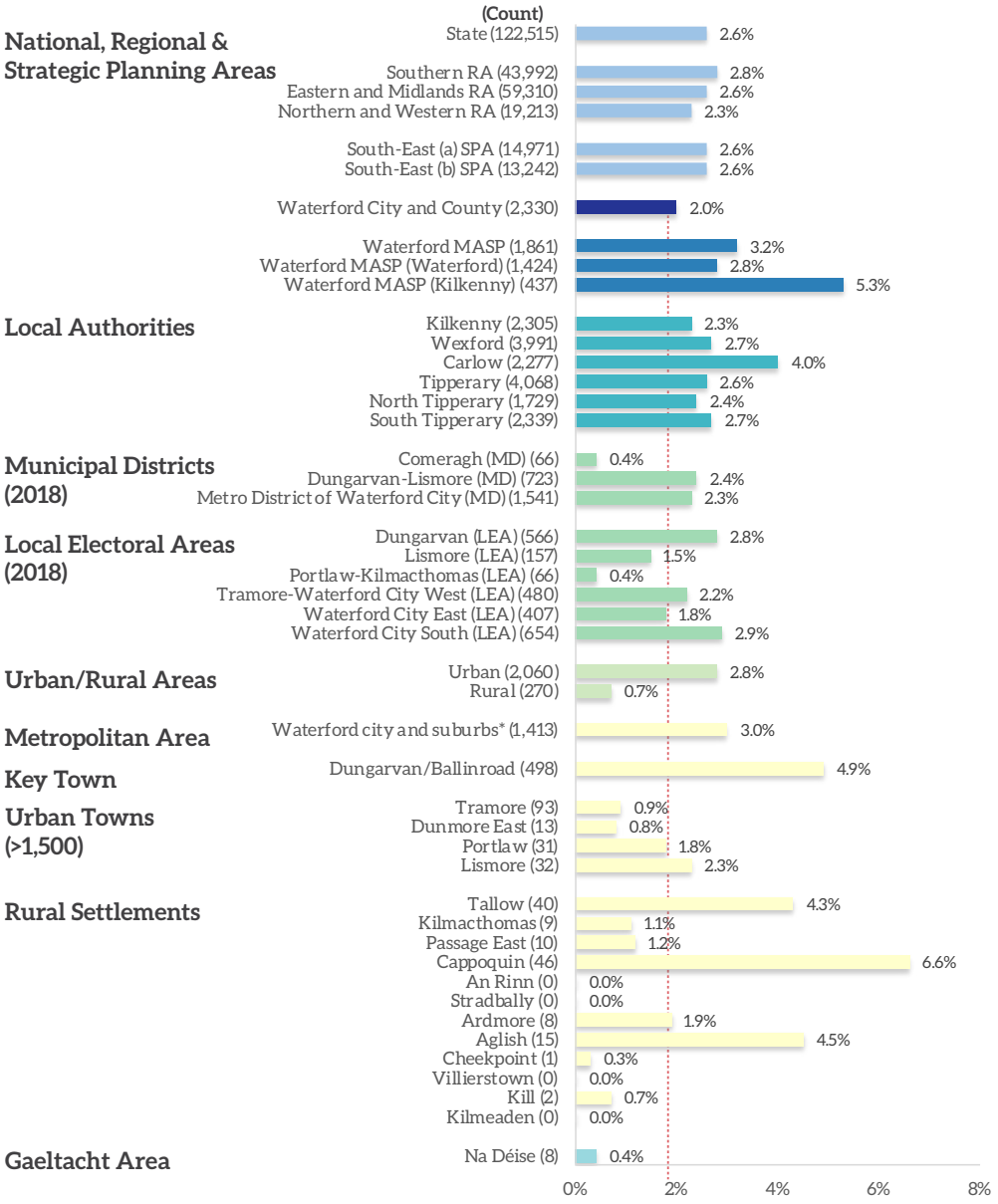


Figure 1.17: Nationality - Polish nationals, 2016 (Source: CSO)

19th Highest # in State

26th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

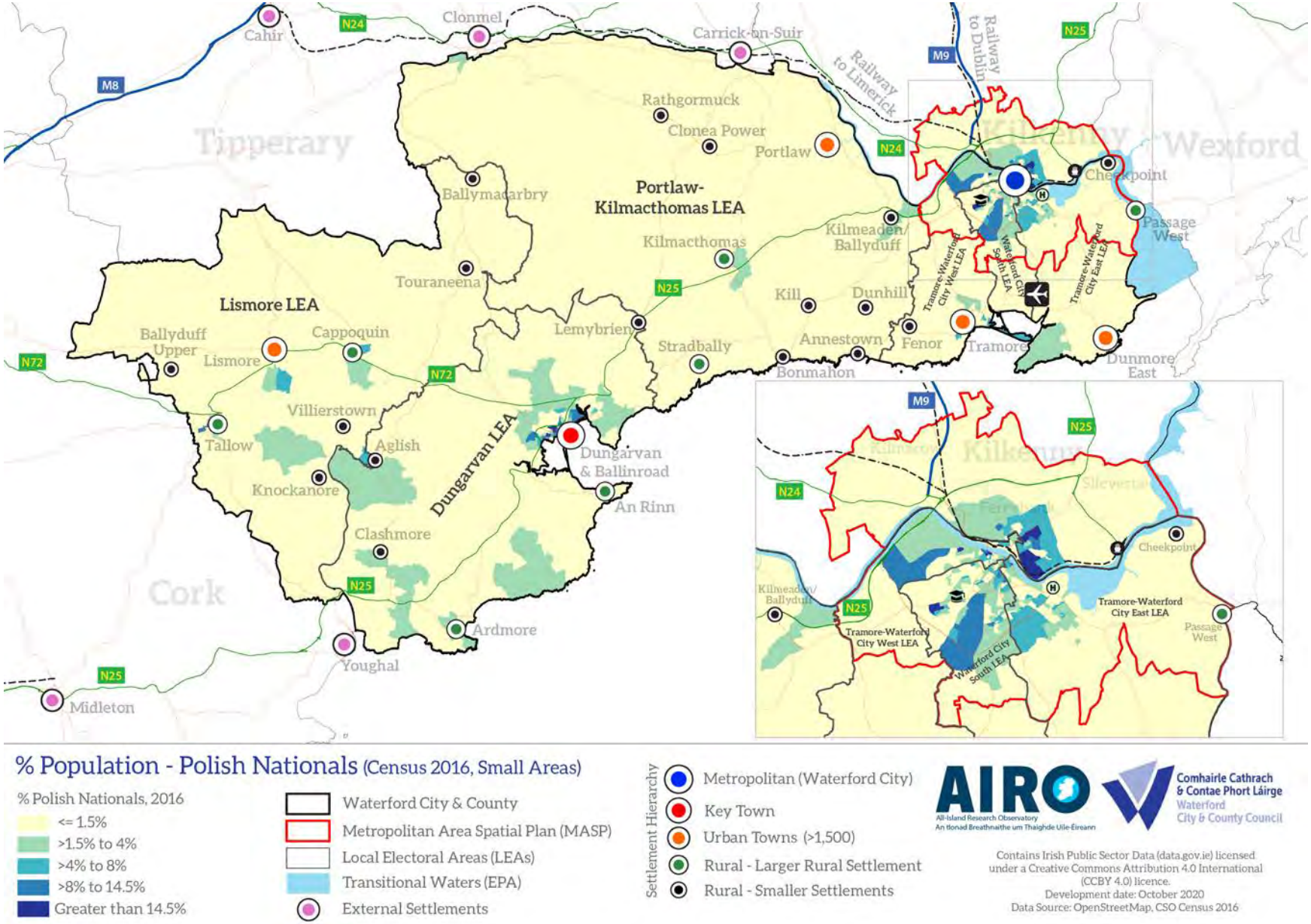
+3.5% or +79

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of Polish Nationals in Waterford is 2,330 and accounts for 2% of the total population within the county - below the State average (2.6%). This total is approximately 1.9% of the total Polish Nationals residing within the State (122,515) and 5.3% residing in the SRA (43,992).
- The proportion of Polish Nationals in Waterford is 2% and is lower than the Waterford MASP rate (3.2%). However, the rate within the Kilkenny area of the MASP is higher at 5.3%. The Comeragh MD (0.4%) has a much lower rate than both the Dungarvan-Lismore (2.4%) and Waterford Metro MD (2.3%). Urban areas in Waterford recorded a rate of 2.9% (2,060) while Rural areas recorded a much lower rate of 0.6% (270).
- Across the settlement hierarchy there is very wide variation with the vast majority of the Polish community located in a number of main settlements such as Waterford City and Dungarvan/Ballinroad. Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than 4% of Polish Nationals: Dungarvan/Ballinroad (4.9% or 498), Tallow (4.3% or 40), Cappoquin (6.6% or 46) and Aglish (4.5% or 15). The highest rate across the hierarchy is Cappoquin at 6.6%. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in the northern parts of the city centre in areas such as Kilculliheen, Ferrybank and Clover Meadows.

Nationality: Polish Nationals, 2016



Map 1.12: Nationality - Polish nationals, 2016 (Source: CSO)

Nationality: Non-Irish Nationals - Other EU28, 2016

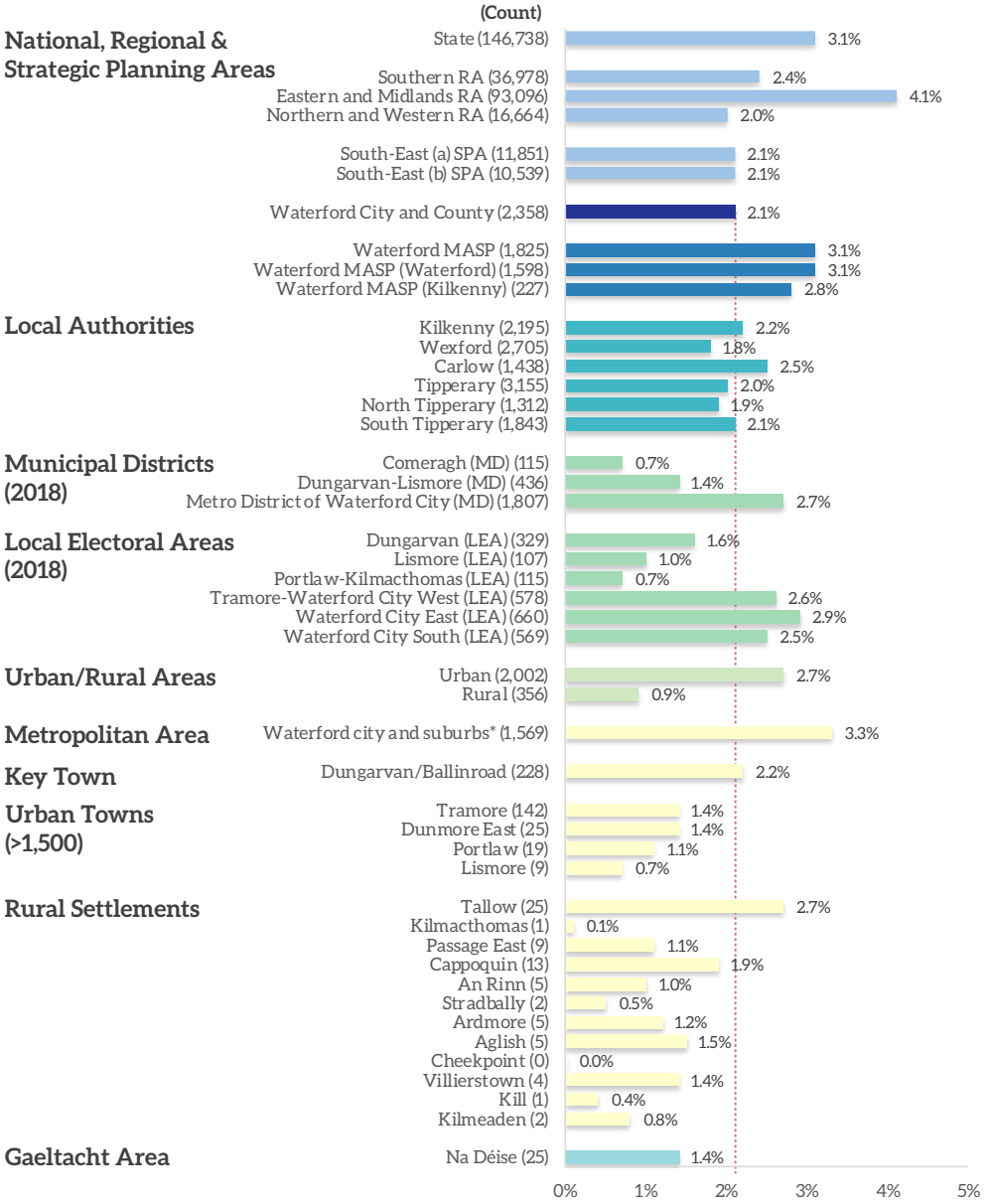


Figure 1.18: Nationality - Non-Irish Nationals - Other EU28, 2016 (Source: CSO)

18th Highest # in State

21st Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

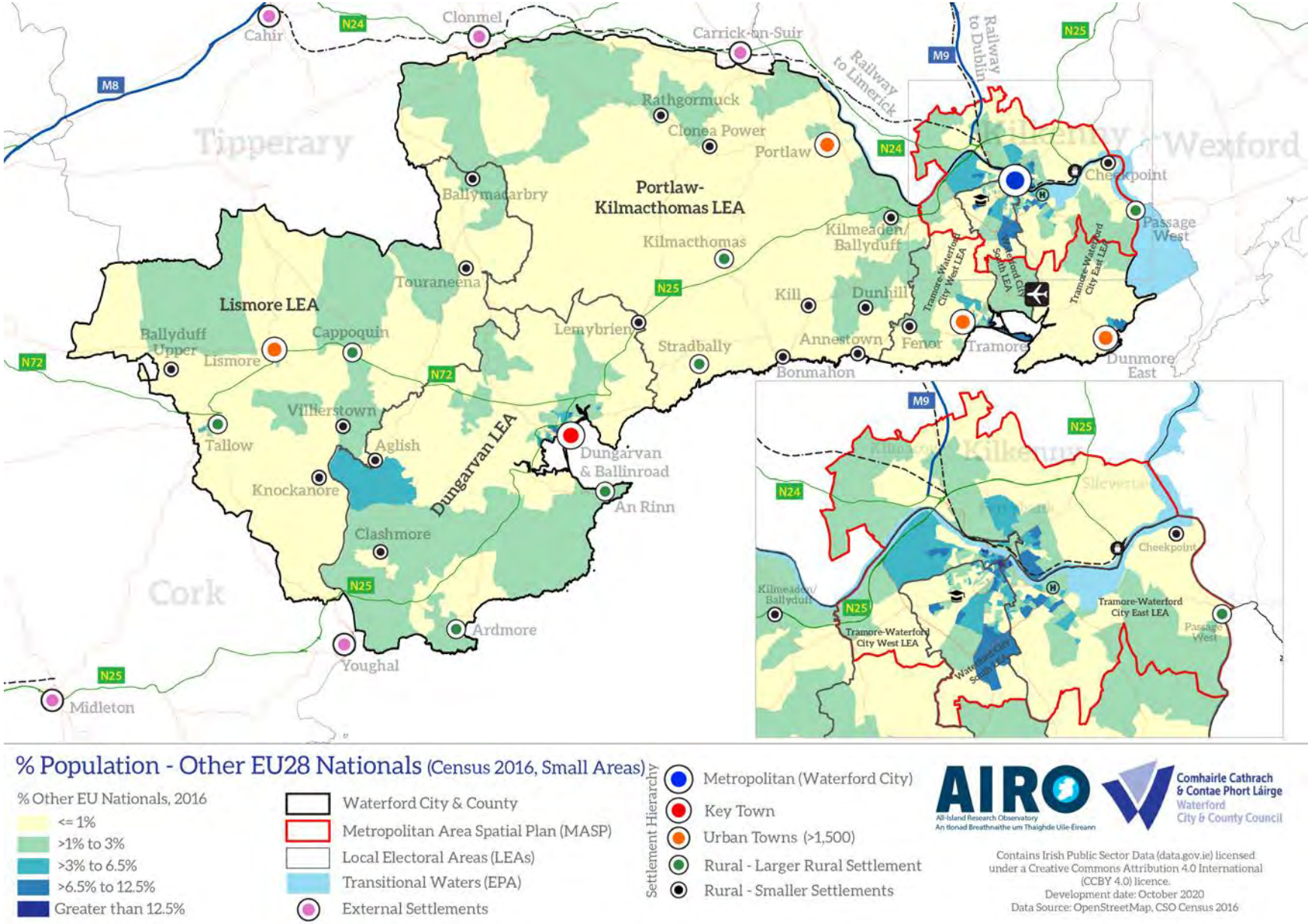
+16.3% or + 330

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of Non-Irish Nationals - Other EU28 in Waterford is 2,358 and accounts for 2.1% of the total population within the county - lower than the State average (3.1%). This total is approximately 1.6% of the total Other EU28 Nationals residing within the State (146,738) and 6.4% residing in the SRA (36,978).
- The proportion of Other EU28 Nationals in Waterford is 2.1% and is significantly lower than the Waterford MASP rate (3.1%). Across the MDs the Comeragh MD (0.7%) has a much lower rate than both the Dungarvan-Lismore (1.4%) and Waterford Metro MD (2.7%). Urban areas in Waterford recorded a rate of 2.8% (2,002) while Rural areas recorded a much lower rate of 0.9% (356).
- Of all the settlements detailed in the hierarchy graphic (18), only three settlements have more than 2% of Other EU28 Nationals: Waterford City and suburbs (3.3% or 1,569), Dungarvan/Ballinroad (2.2% or 228) and Tallow (2.7% or 25). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are located in a range of areas across the city but with highest clusters in the urban core and areas near Summerhill.

Nationality: Non-Irish Nationals - Other EU28, 2016



Map 1.13: Nationality - Non-Irish Nationals - Other EU28, 2016 (Source: CSO)

Nationality: Non-Irish Nationals - Rest of the World, 2016

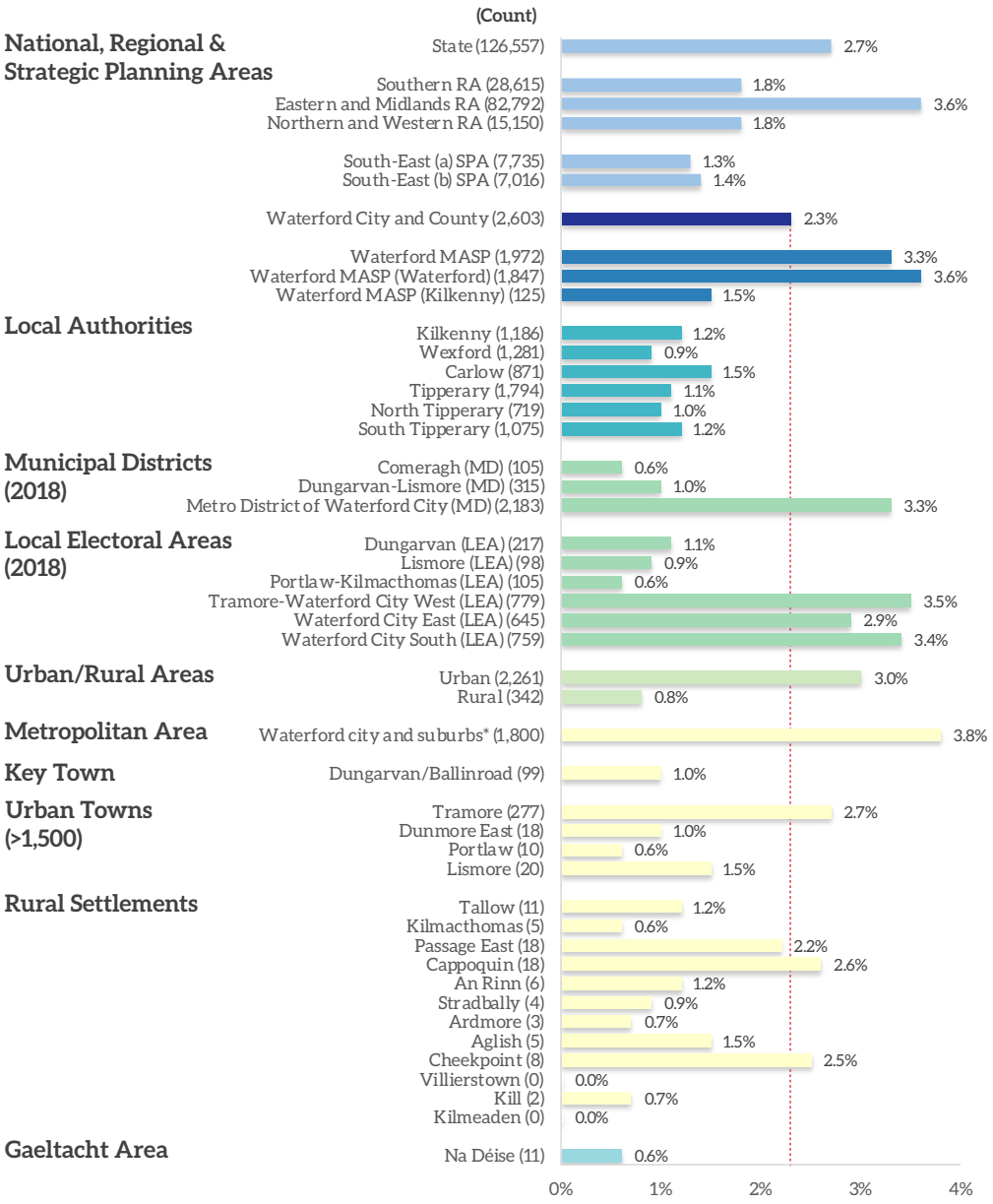


Figure 1.19: Non-Irish Nationals - Rest of the World, 2016 (Source: CSO)

14th Highest # in State

10th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

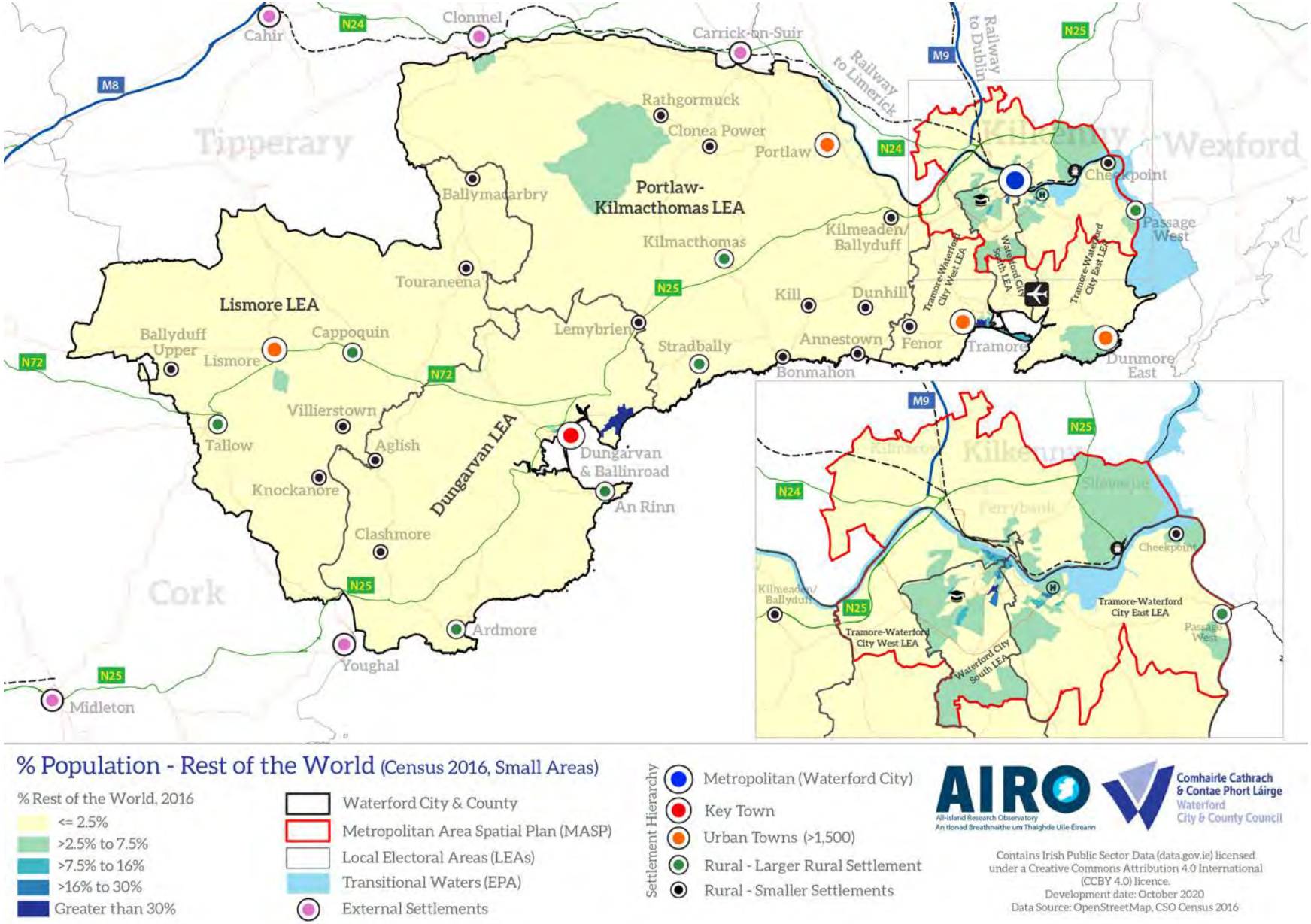
-18% or -573

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of Non-Irish Nationals - Rest of the World in Waterford is 2,603 and accounts for 2.3% of the total population within the county - slightly lower than the State average (2.7%). This total is approximately 2.1% of the total Rest of the World Nationals residing within the State (126,557) and 9.1% residing in the SRA (28,615).
- The proportion of Non-Irish Nationals in Waterford is 2.3% and is significantly lower than the Waterford MASP rate (3.3%). Across the MDs, the Comeragh MD (0.7%) has a much lower rate than both the Dungarvan-Lismore (1.4%) and Waterford Metro MD (3.3%). Urban areas in Waterford recorded a rate of 3.1%, (2,261) while Rural areas recorded a much lower rate of 0.9% (342).
- Across the settlement hierarchy there is very wide variation across urban and rural settlements. Of all the settlements detailed in the hierarchy graphic (18), only four settlements have 2.5% or more of Rest of the World Nationals: Waterford City and suburbs (3.8% or 1,800), Tramore (2.7% or 277), Cappoquin (2.6% or 18) and Cheekpoint (2.5% or 8). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in the urban core of the city in areas close to Rice Bridge and in close proximity to O'Connell Street and Summerhill.

Nationality: Non-Irish Nationals - Rest of the World, 2016



Map 1.14: Non-Irish Nationals - Rest of the World, 2016 (Source: CSO)

Ethnic Group: White Irish Traveller, 2016

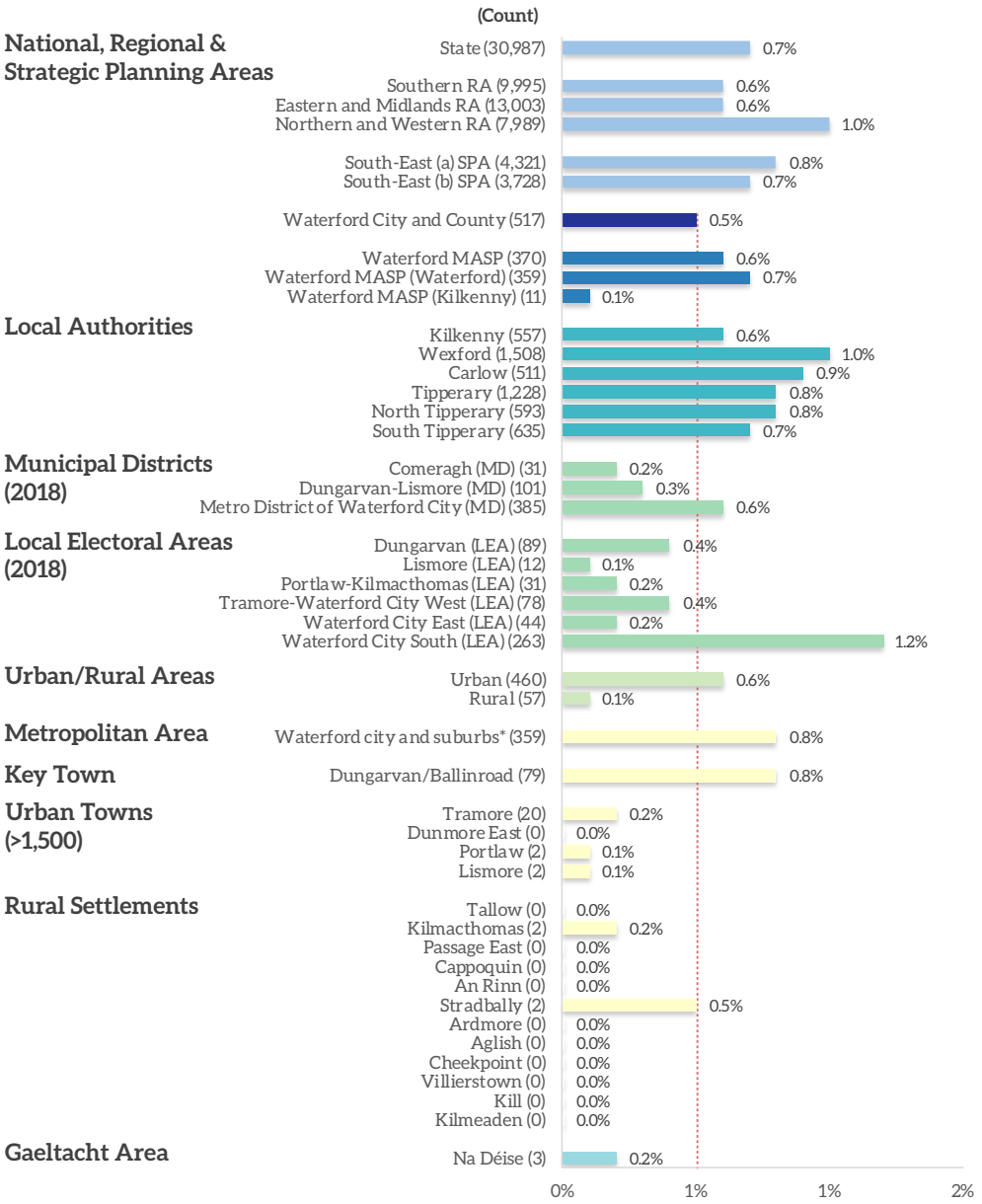


Figure 1.20: Ethnicity - White Irish Traveller, 2016 (Source: CSO)

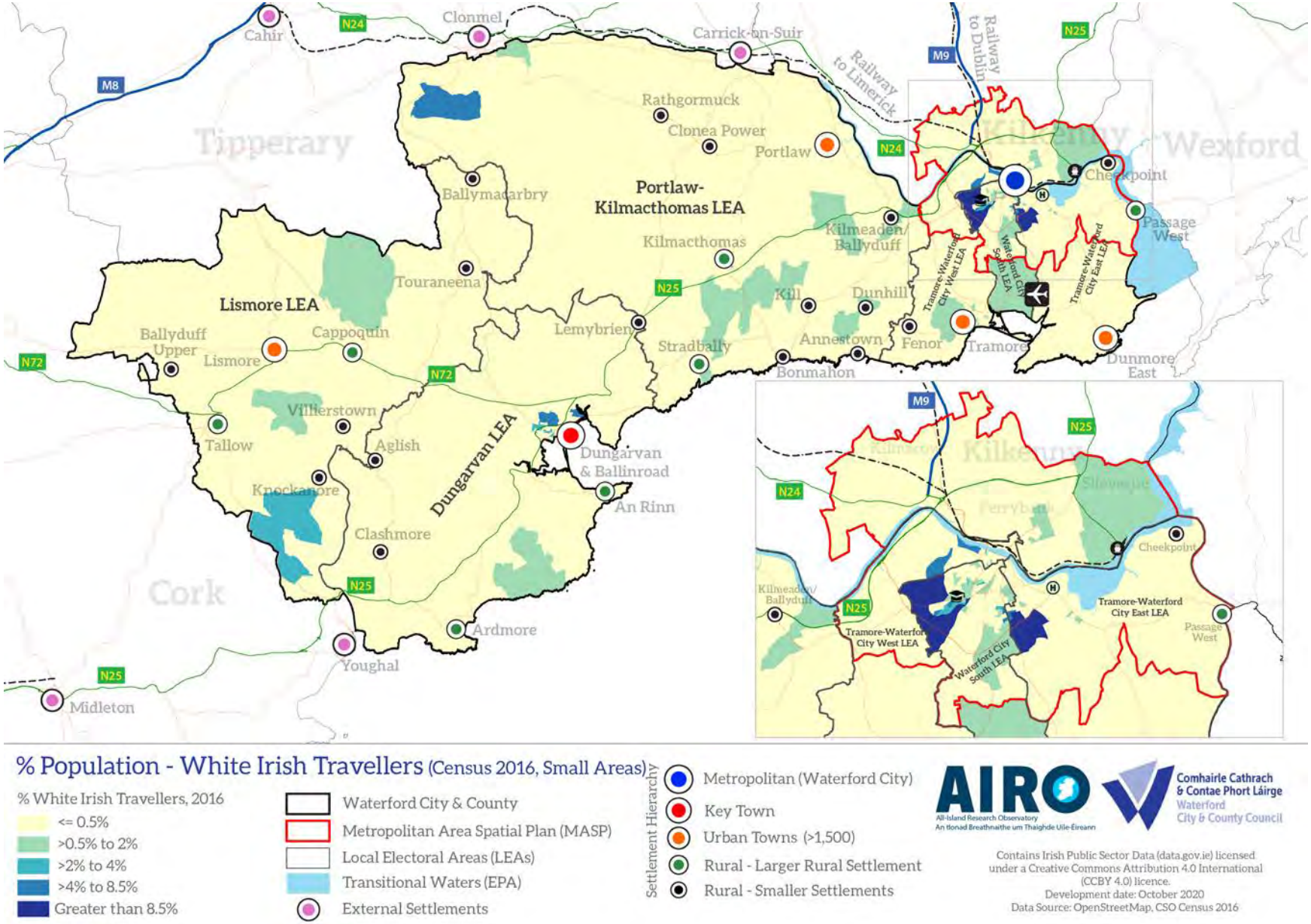
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of Irish Travellers residing in Waterford is 517 and accounts for 0.5% of the total population within the county- slightly lower than the State average (0.7%). This total is approximately 1.7% of the total White Irish Travellers residing within the State (30,987) and 5.1% residing in the SRA (28,615).
- The proportion of White Irish Travellers in Waterford is 0.5% and is lower than the Waterford MASP rate (0.6%). Across the MDs the Comeragh MD (0.2%) has a lower rate than Dungarvan-Lismore (0.3%) and much lower rate than Waterford Metro MD (0.6%). Urban areas in Waterford recorded a rate of 0.6% (460) while Rural areas recorded a much lower rate of 0.1% (57).
- Of all the settlements detailed in the hierarchy graphic (18), only three settlements have 0.5% or more of White Irish Travellers: Waterford City and suburbs (0.8%), Dungarvan/Ballinroad (0.8%) and Stradbally (0.5%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in a number of pockets such as the Ballybeg South/ Ballynaneashagh ED and the Grange South ED.

Ethnic Group: White Irish Traveller, 2016



Map 1.15: Ethnicity - White Irish Traveller, 2016 (Source: CSO) (Source: CSO)

Pobal HP Deprivation Index, 2016

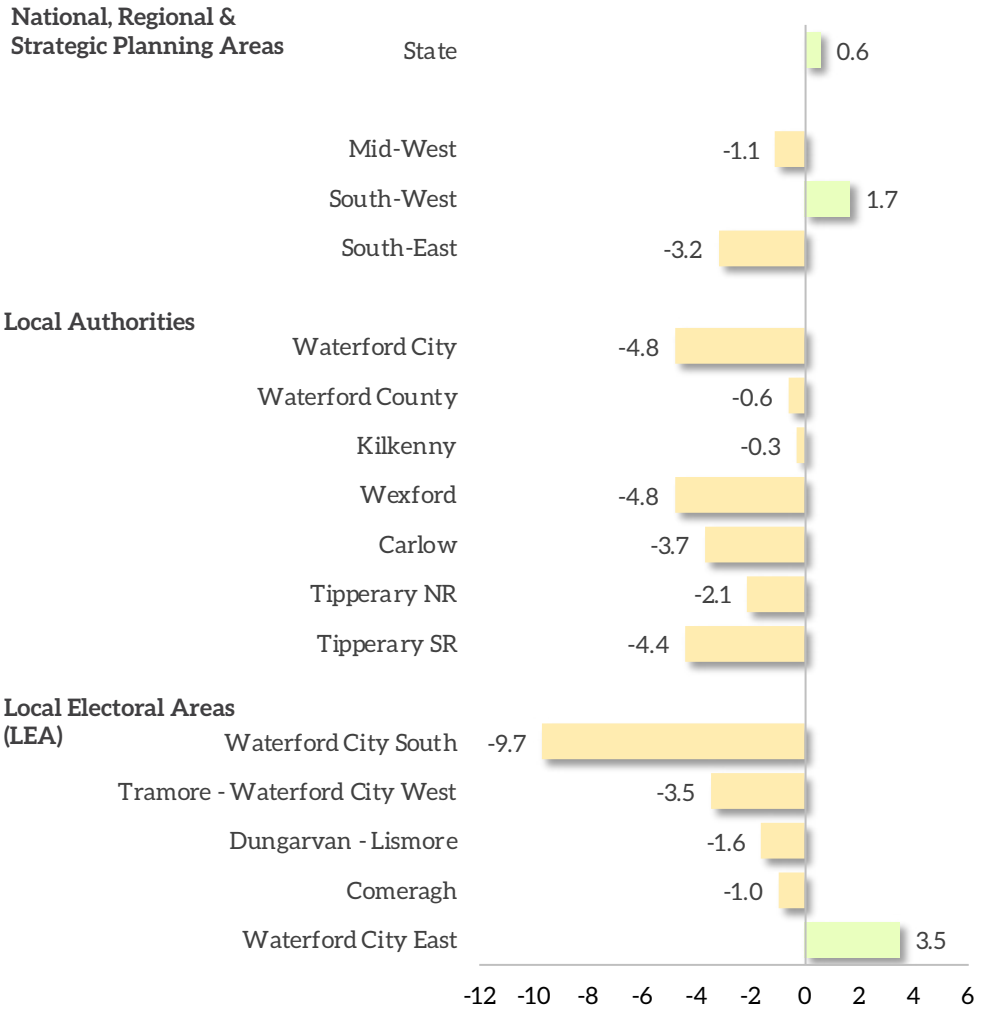
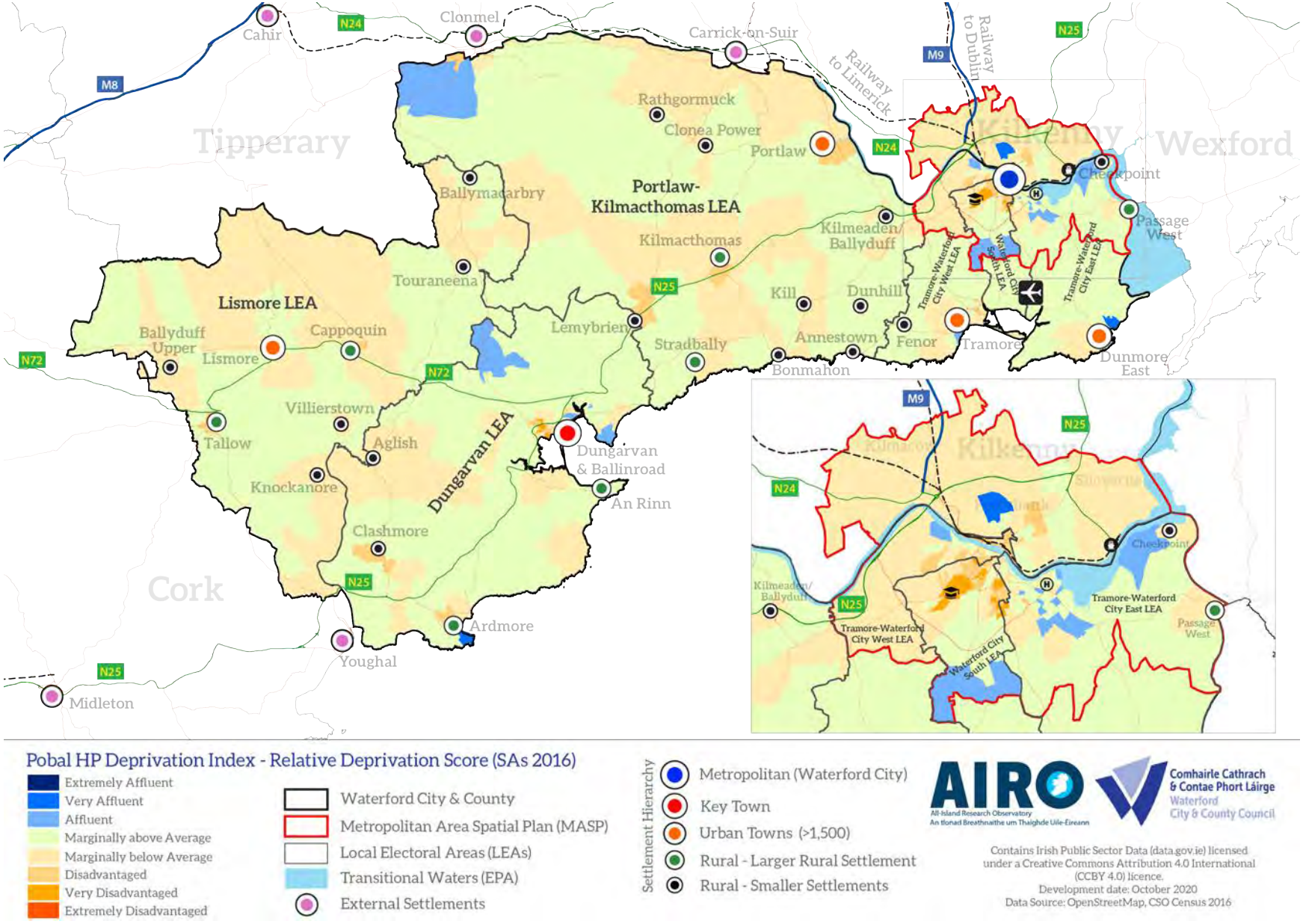


Figure 1.21: Pobal HP Deprivation Index, 2016 (Source: CSO & AIRO)

- Relative to the State, the South-East Region has a higher level of deprivation. As the graph illustrates, the relative affluence and deprivation score for the State is 0.6, while the corresponding value for the South-East Region is -3.2. Both Waterford City and County are more deprived than Ireland as a whole, with Waterford City recoding a rate of -4.8 (similar to Wexford) and Waterford County recoding a rate of -0.6.
- The Waterford City South LEA has by far the lowest level of deprivation with a score of -9.7. While still classed as marginally below average (-10 to 0) this LEA is very close to being classed as 'Disadvantaged'. With the exception of Waterford City East (3.5), all other LEAs are also classed as marginally below average.
- This map classifies each of the 504 Small Areas (SAs) in Waterford on the basis of their scores on the HP Pobal Affluence and Deprivation Index. As the map shows, most of Waterford, and in particular rural Waterford, is classified on the Pobal HP Index as being 'marginally above average' or 'marginally below average'. The northern half of the county has almost equal numbers of SAs that are classified as 'marginally below average' and 'marginally above average'. Below-average and disadvantaged values pertain in much of Waterford's MASP area and in towns such as Dungarvan and Tramore.
- Highest levels of disadvantage are located within the MASP area and is clearly evident on the map in areas such as Larchville, Lisduggan and Morrison's Road. Across Waterford City and County (including Kilkenny MASP area) a total of 110 SAs are classed as Disadvantaged or Very Disadvantaged. This accounts of a total population of 24,821 or 20% of the total population. The following pages provide maps (1.16-1.22) of the Pobal HP Deprivation Index across key settlements in Waterford.

Pobal HP Deprivation Index, 2016



Map 1.16: Pobal HP Deprivation Index, 2016 (Source: CSO & AIRO)

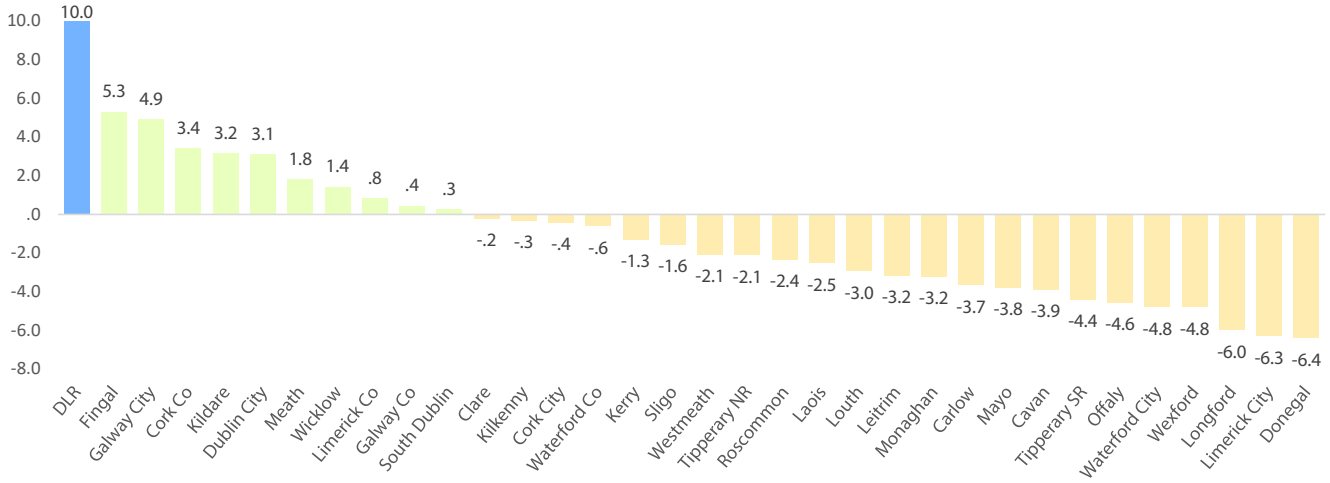


Figure 1.22: Pobal HP Deprivation Index, Relative Score 2016 - Local Authorities

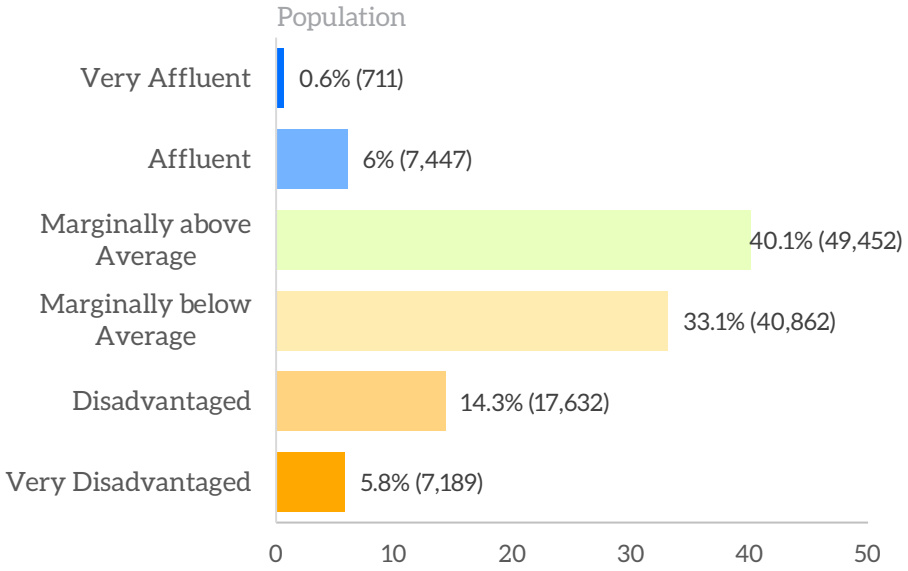
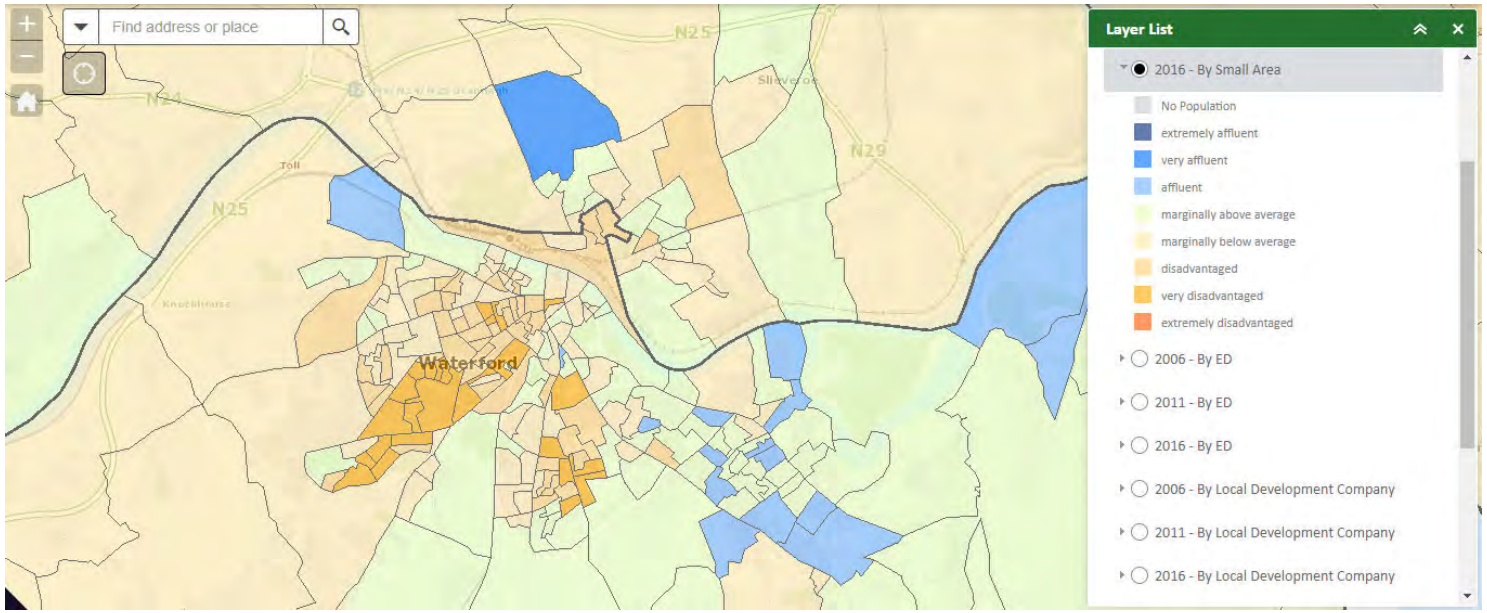
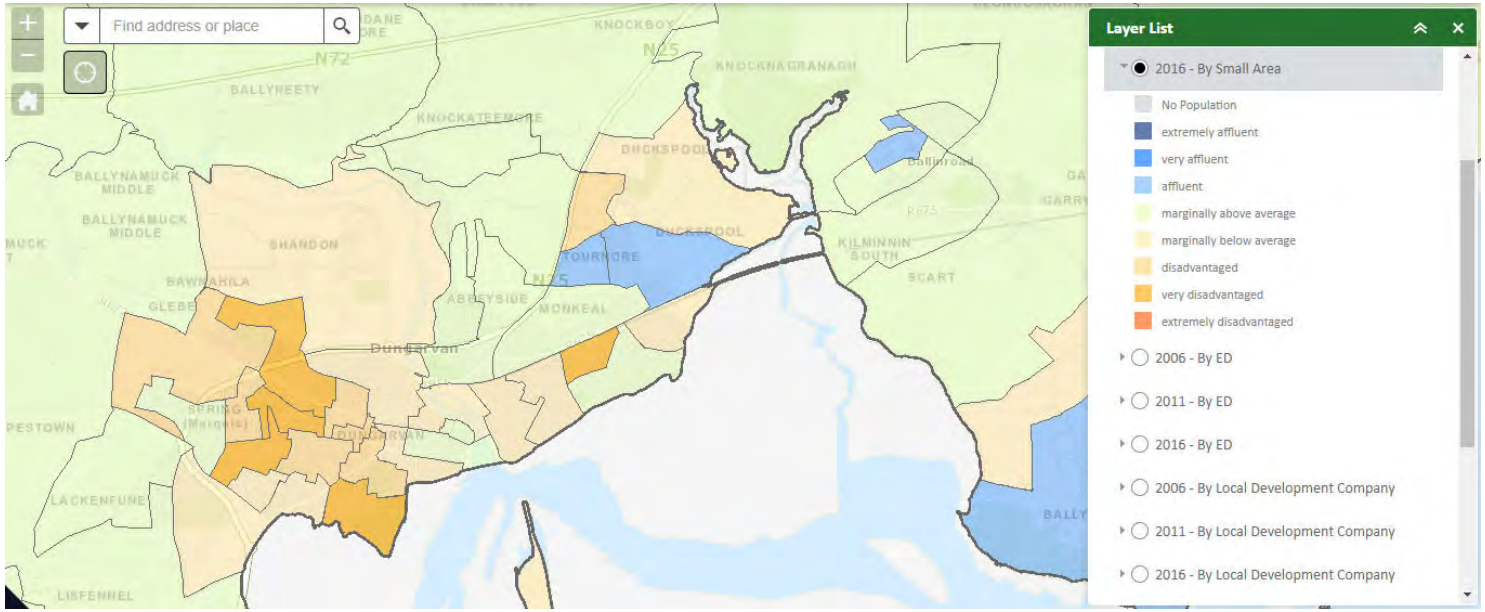


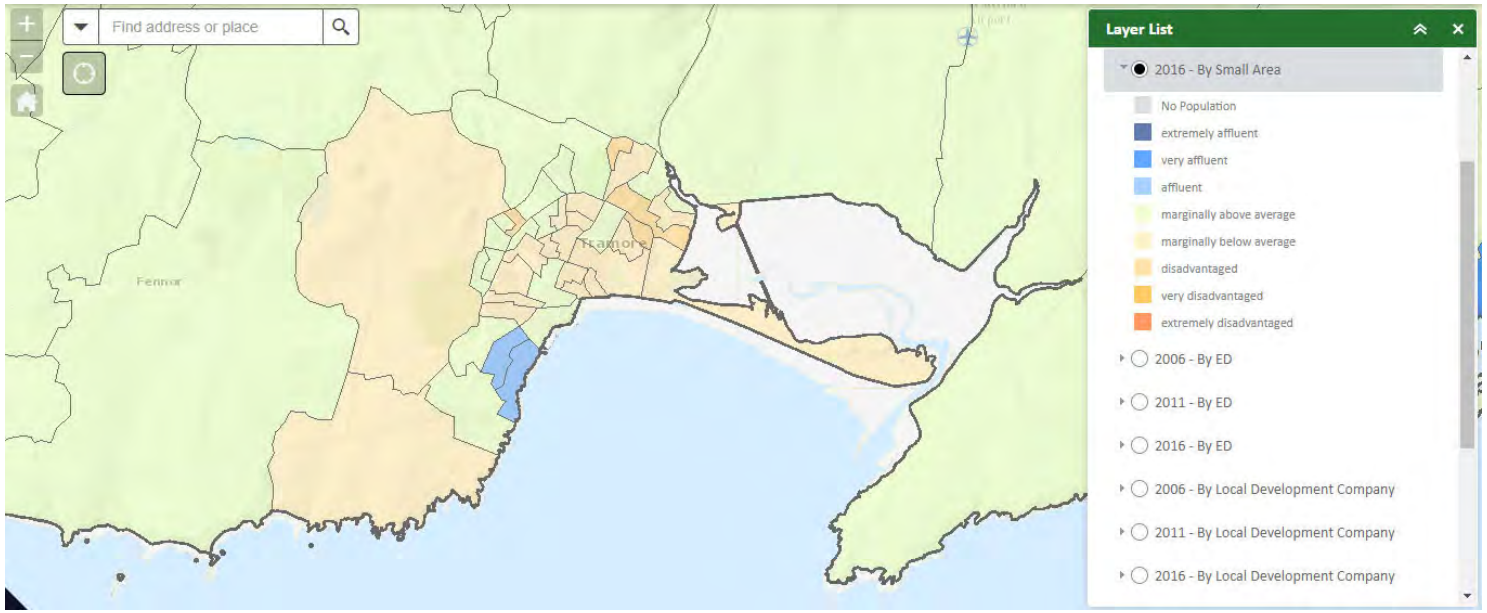
Figure 1.23: Pobal HP Deprivation Index, Relative Score 2016 - by Population



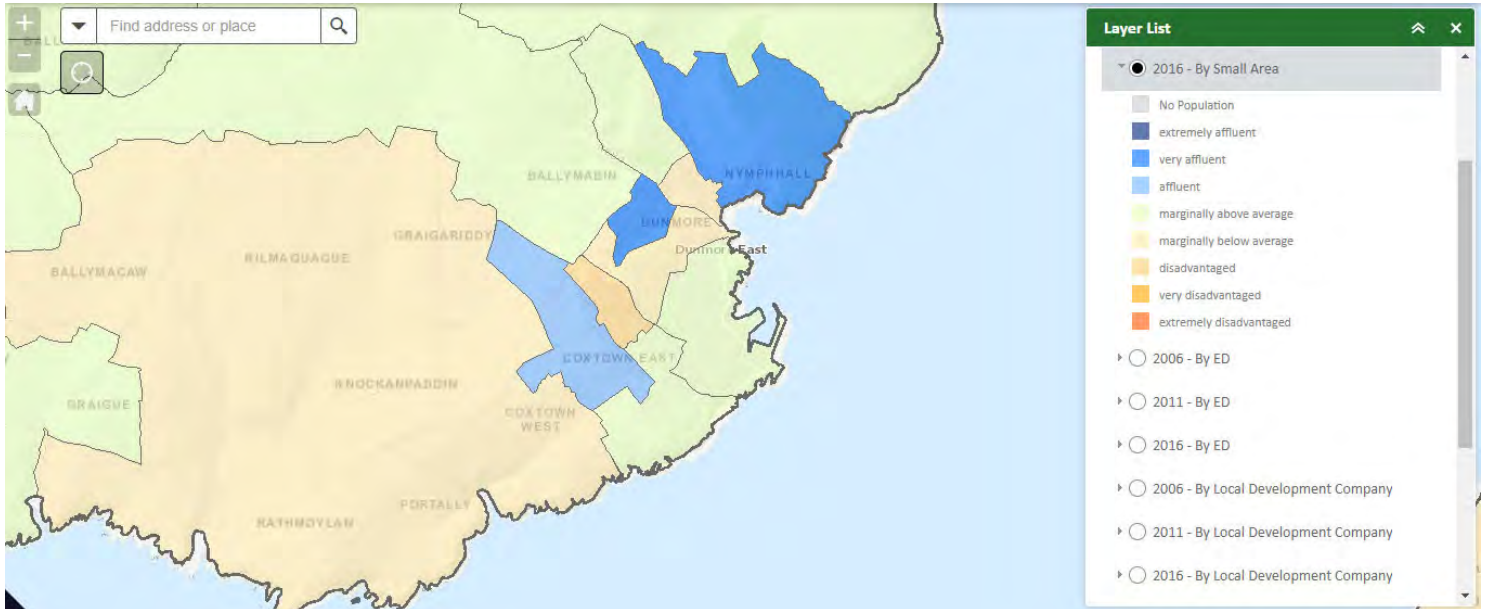
Map 1.17 Pobal HP Deprivation Index, Relative Score 2016 - Waterford City



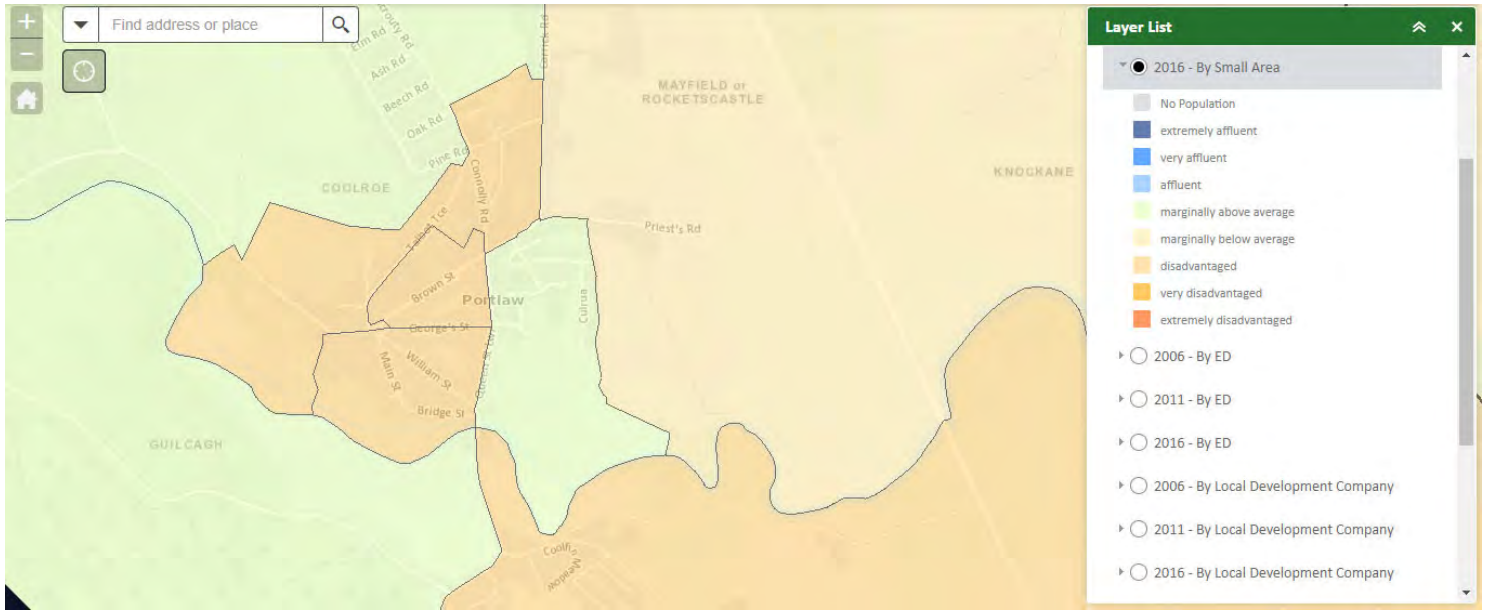
Map 1.18: Pobal HP Deprivation Index, Relative Score 2016 - Dungarvan



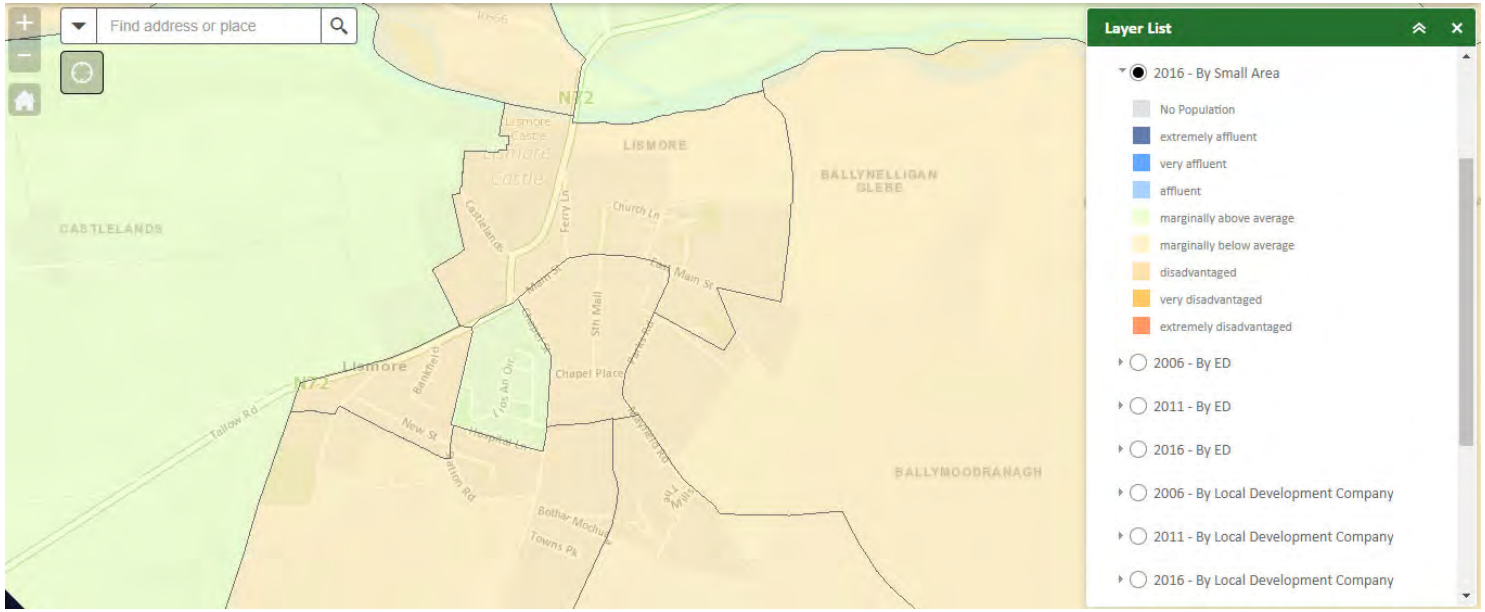
Map 1.19: Pobal HP Deprivation Index, Relative Score 2016 - Tramore



Map 1.20: Pobal HP Deprivation Index, Relative Score 2016 - Dunmore East



Map 1.21: Pobal HP Deprivation Index, Relative Score 2016 - Portlaw



Map 1.22: Pobal HP Deprivation Index, Relative Score 2016 - Lismore

Households: Lone Parents (Children under 15), 2016

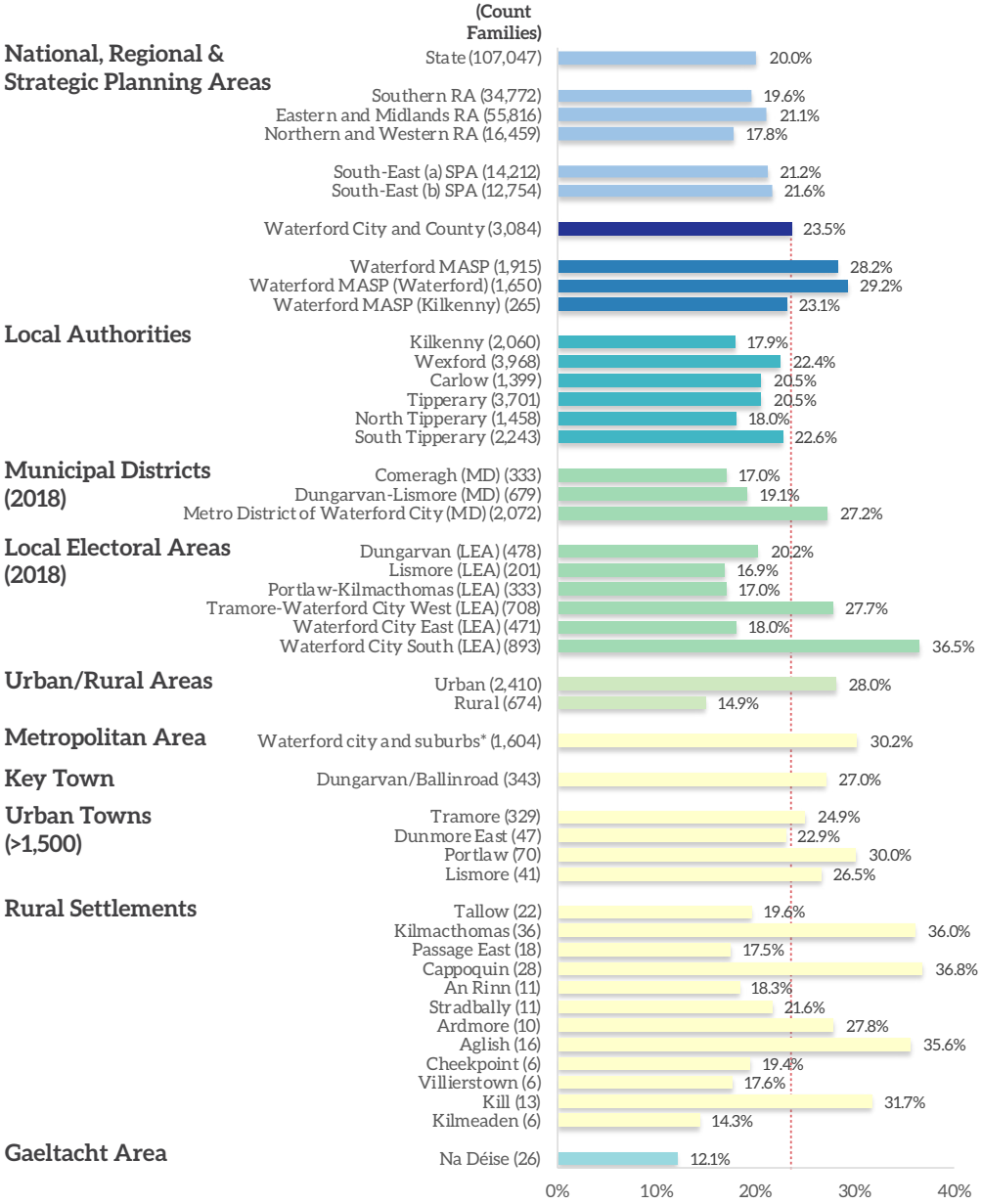


Figure 1.24: Households - One parent families, 2016 (Source: CSO)

15th Highest # in State

3rd Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

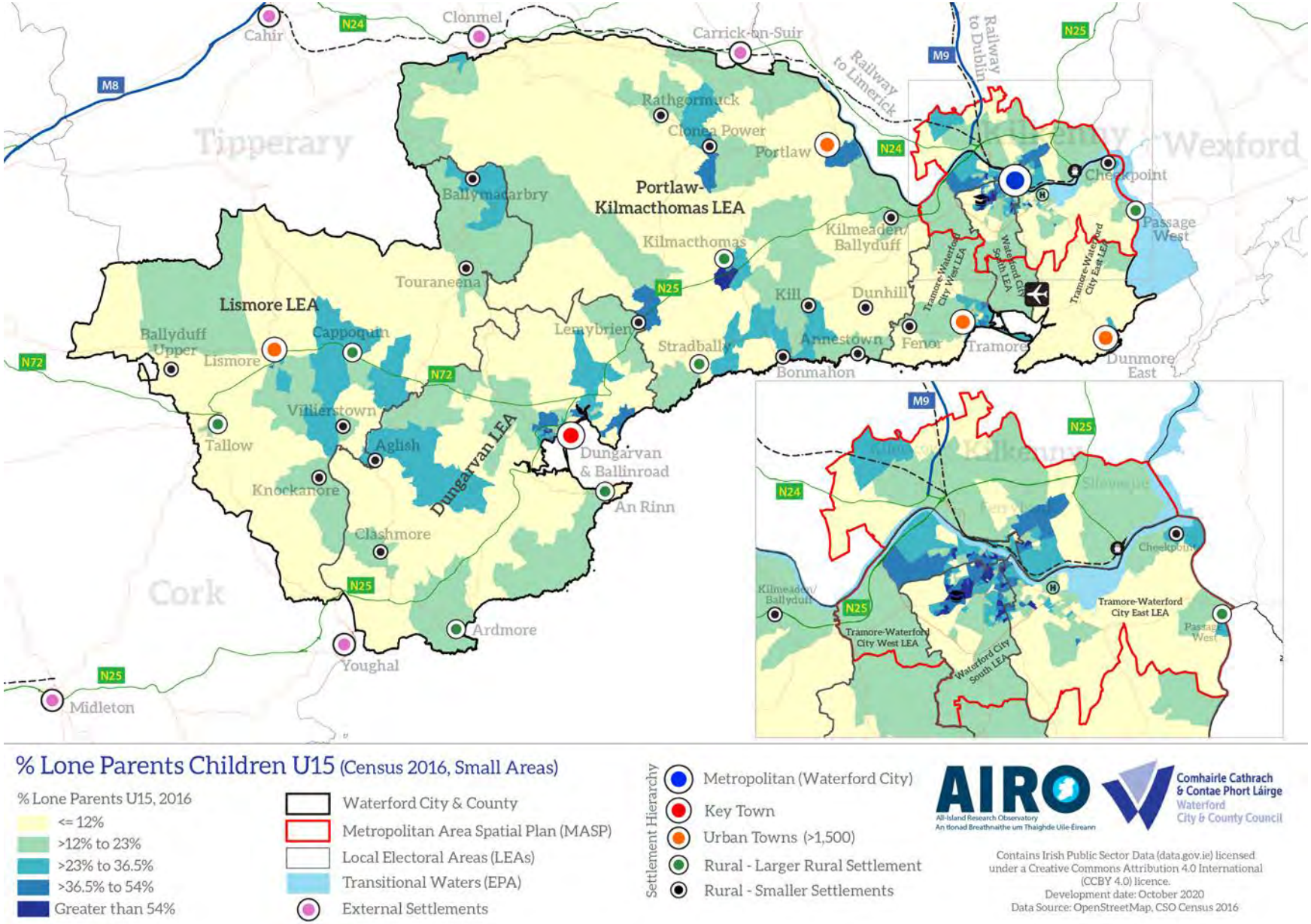
- 4.2% or - 134

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total lone parent families (with children under 15) in Waterford is 3,084 and accounts for 23.5% of the total families within the county - above the State average (20%). This total is approximately 2.9% of the total lone parent families in the State (107,047) and 8.8% residing in the SRA (34,772).
- The proportion of lone parents in Waterford is 23.5% and is much lower than the Waterford MASP rate (28.2%) - there is also a noticeable difference between the Waterford and Kilkenny parts of the MASP. Across the MDs, the Comeragh MD (17%) has a similar rate to the Dungarvan-Lismore MD (19.1%) and a much lower rate than Waterford Metro MD (27.2%). Urban areas in Waterford recorded a rate of 28.6% (2,410), this is approximately double the rate recorded in Rural areas at 14.9% (674).
- Across the settlement hierarchy there is very wide variation across both urban and rural settlements. Of all the settlements detailed in the hierarchy graphic (18), three settlements have more than a third of families classed as lone parent families: Cappoquin (36.8%), Kilmacthomas (36%) and Aglish (35.6%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in the south west of Waterford City in areas such as Larchville, Ballybeg North, Ballytruckle and Poleberry.

Households: Lone Parents (Children under 15), 2016



Map 1.23: Households - One parent families, 2016 (Source: CSO)

General Health: Bad or Very Bad, 2016

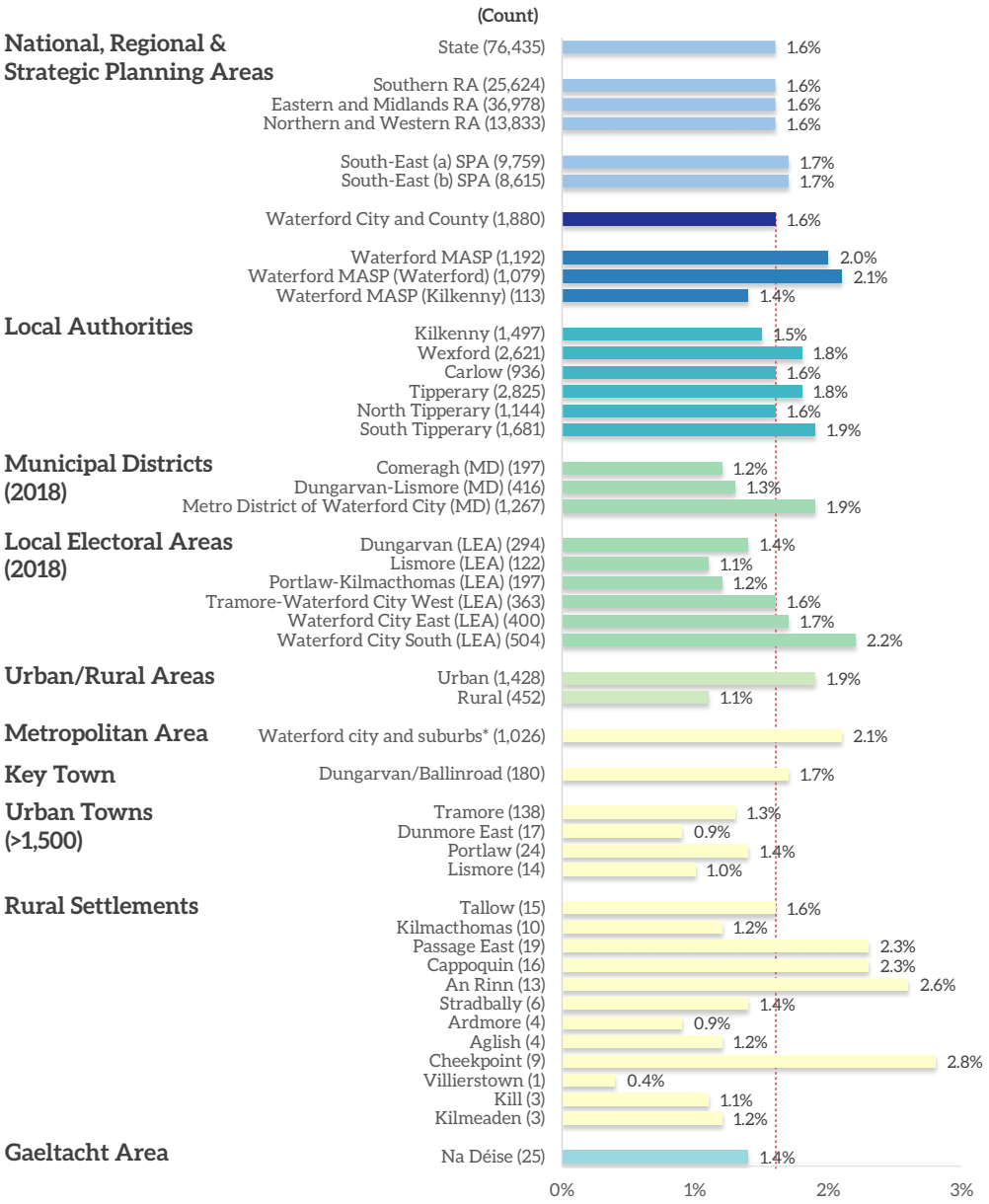


Figure 1.25: Health Status - Bad or Very Bad, 2016 (Source: CSO)

19th Highest # in State

17th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

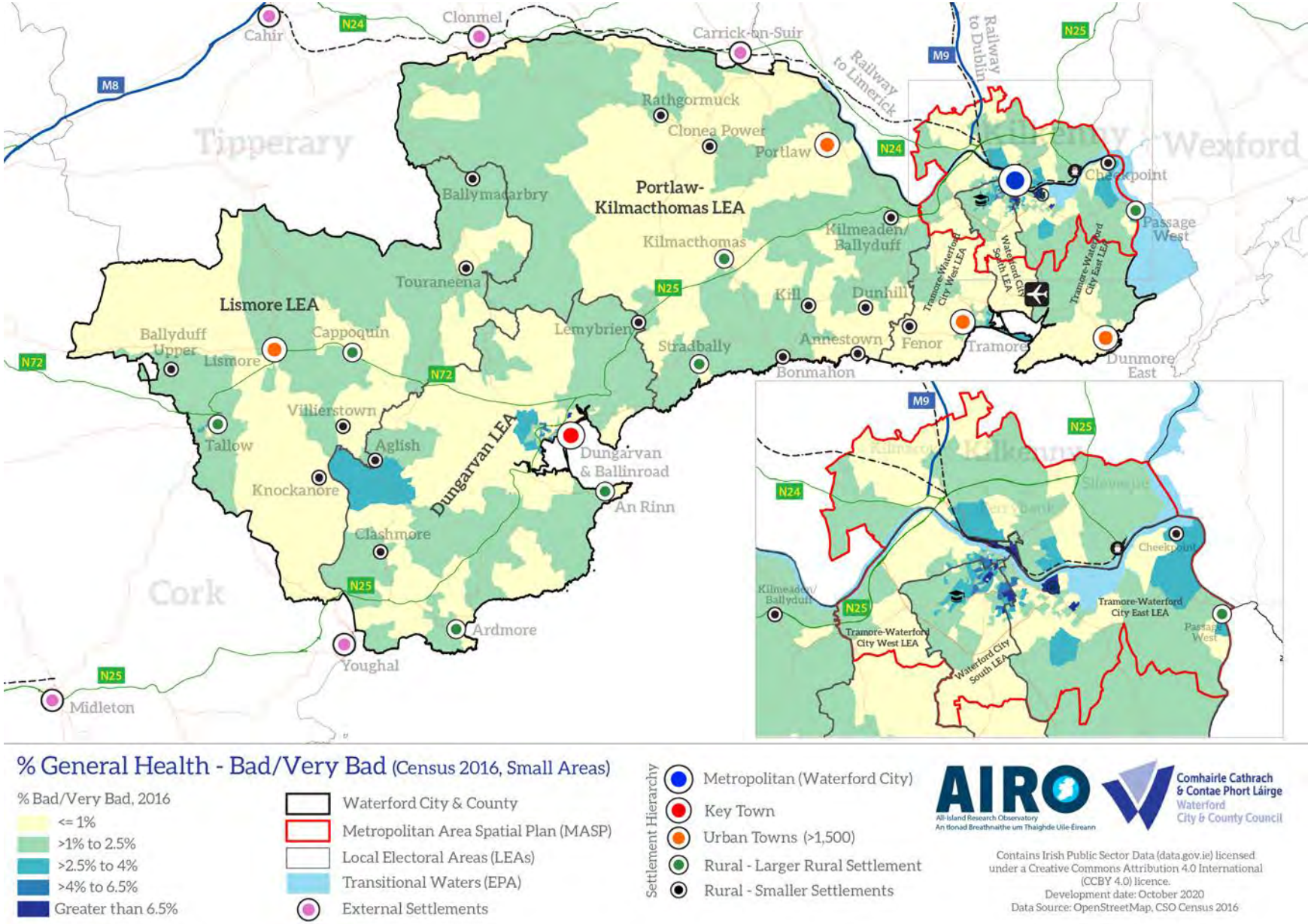
+7.9% or + 138

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population experiencing Bad/Very Bad Health in Waterford is 1,880 and accounts for 1.6% of the total population within the county - the same as the State average (1.6%). This total is approximately 2.4% of the total population experiencing Good or Very Good Health within the State (76,435) and 7.3% residing in the SRA (25,624).
- The proportion the total population experiencing Bad/Very Bad Health in Waterford is 1.6% and is lower than the Waterford MASP rate (2%). Across the MDs the Waterford Metro MD (1.9%) has the highest rate with Dungarvan-Lismore (1.3%) and Comeragh MD (1.2%) with lower rates. Urban areas in Waterford recorded a rate of 1.9% (1,428) and is much higher than Rural areas where the rate was 1.1% (452).
- Of all the settlements detailed in the hierarchy graphic (18), five settlements have more than 2% experiencing Bad/Very Bad Health: Cheekpoint (2.8%), An Rinn (2.6%), Passage East and Cappoquin (2.3%) and Waterford City and Suburbs (2.1%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are in central areas in Waterford City. High rates, as expected, are also evident in areas close to Waterford Hospital.

General Health: Bad or Very Bad, 2016



Map 1.24: Health Status - Bad or Very Bad, 2016 (Source: CSO)

Disability: % of Total Population, 2016

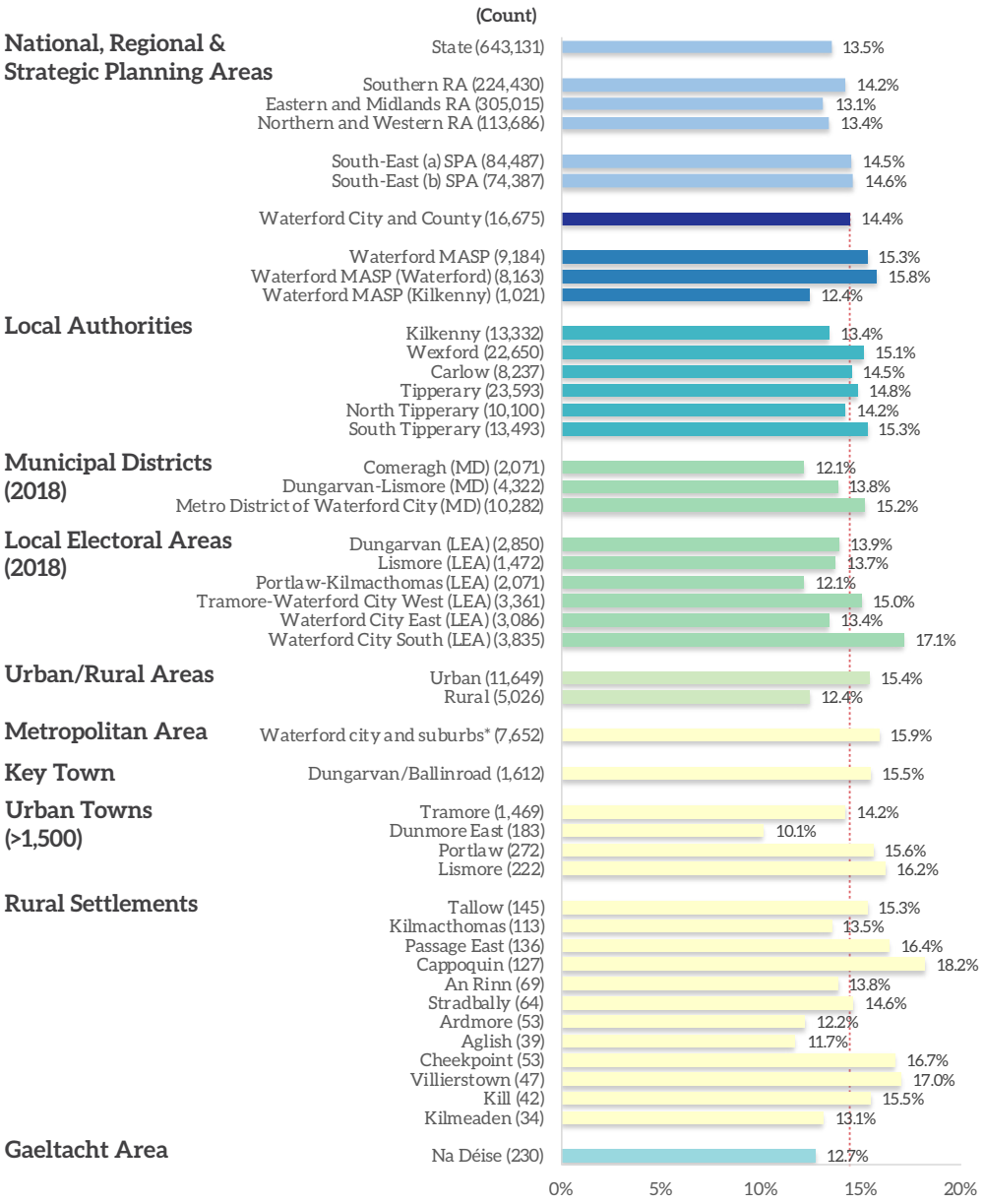


Figure 1.26: Disability - % Total Population, 2016 (Source: CSO)

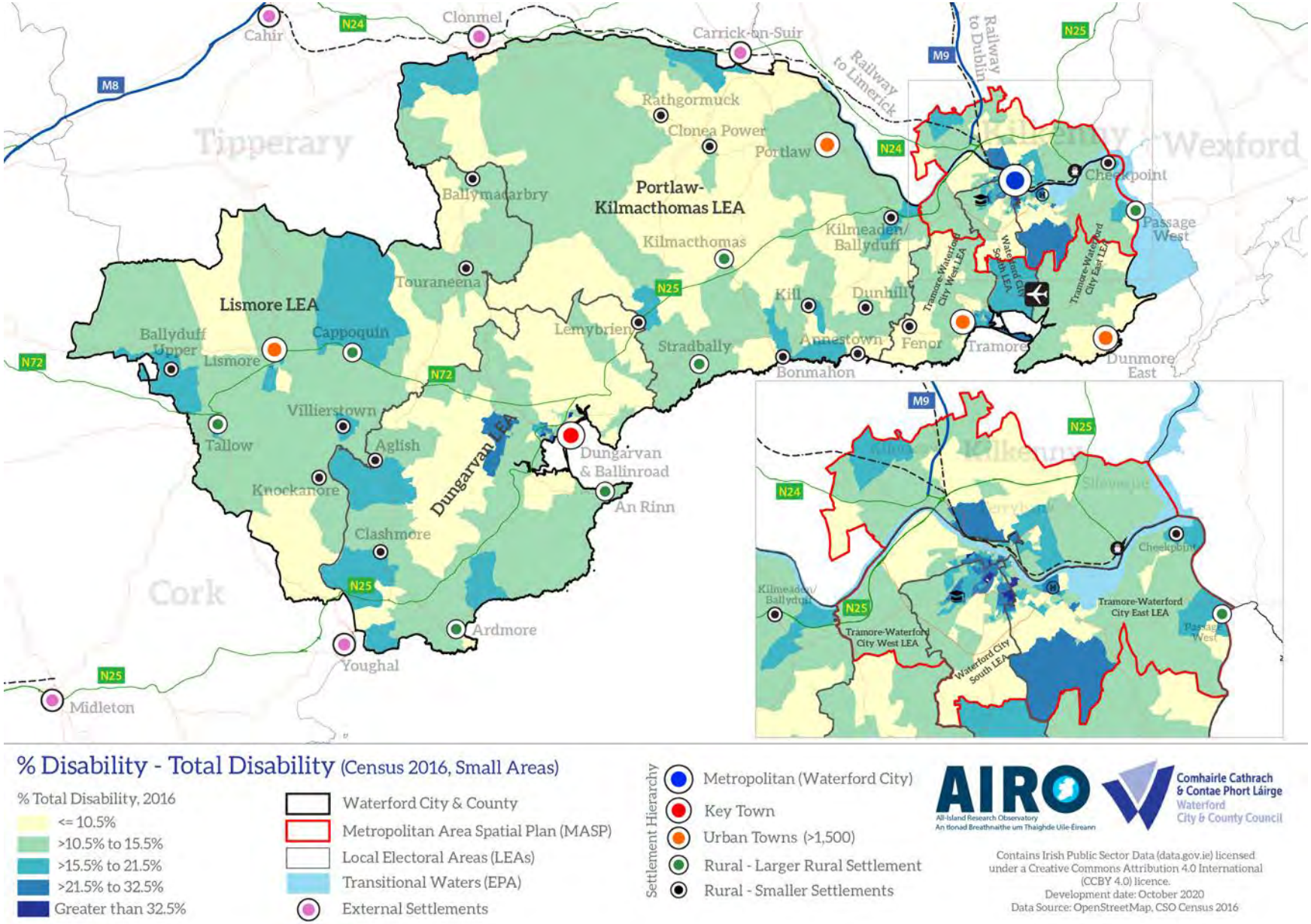
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population with a disability residing in Waterford is 16,675 and accounts for 14.4% of the total population within the county - slightly higher than the State average (13.5%). This total is approximately 2.6% of the total population with a disability residing within the State (643,131) and 7.4% residing in the SRA (224,430).
- The proportion the total population with a disability residing in Waterford is 14.4% and is lower than the Waterford MASP rate (15.3%). Across the MDs, the Comeragh MD (12.1%) is lower than Dungarvan-Lismore (13.8%) and Waterford Metro MD (15.2%). Urban areas in Waterford recorded a rate of 15.4% (11,649) while Rural areas recorded a significantly lower rate of 12.6% (5,026).
- Of all the settlements detailed in the hierarchy graphic (18), five settlements have more than 16% the total population with a disability: Cappoquin (18.2%), Cheekpoint (16.7%), Villierstown (17%), Lismore (16.2%) and Passage East (16.4%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in central and south east Waterford City in areas such as Grange North, Newtown, Kingsmeadow and Shortcourse.

Disability: % of Total Population, 2016



Map 1.25: Disability - % Total Population, 2016 (Source: CSO)

Carers: % of Total Population, 2016

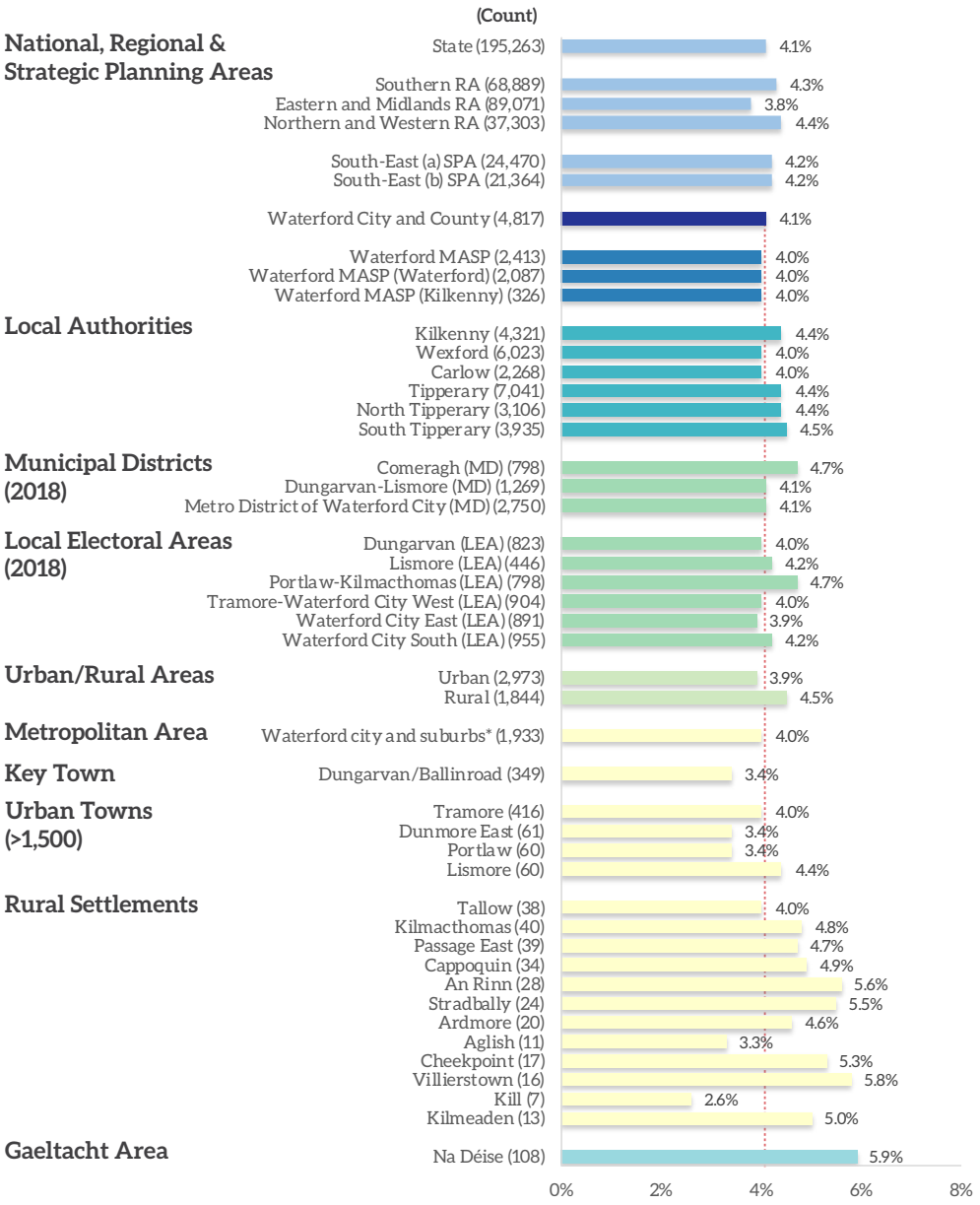


Figure 1.27: % Carers, 2016 (Source: CSO)

19th Highest # in State

19th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

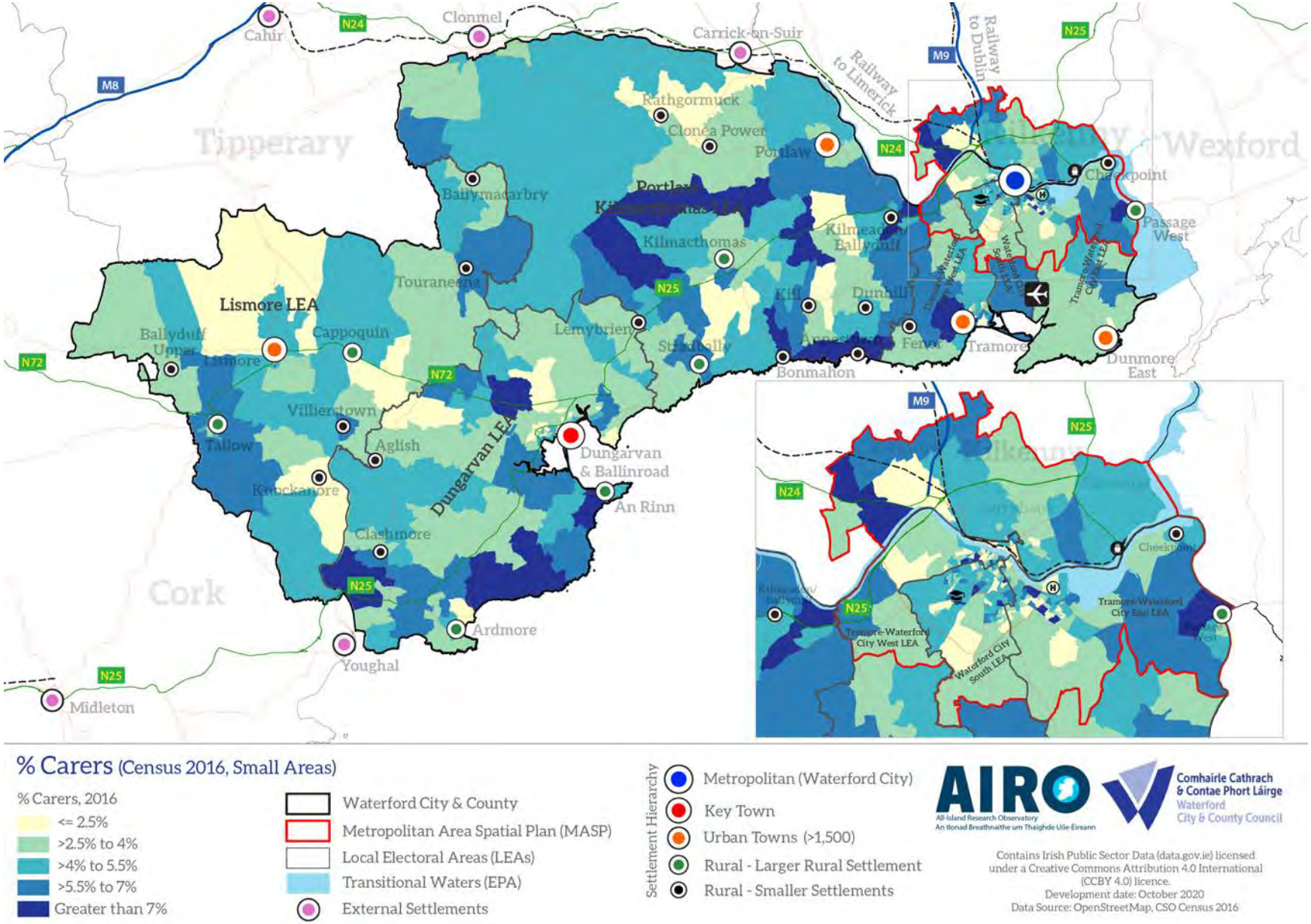
-0.1% or -6

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population classed are Carers residing in Waterford is 4,817 and accounts for 4.1% of the total population within the county - the same as the State average (4.1%). This total is approximately 2.5% of the total population with a disability residing within the State (643,131) and 7.4% residing in the SRA (224,430).
- The proportion the total population who are Carers residing in Waterford is 4.1% and is slightly higher than the Waterford MASP rate (4%). Across the MDs the Comeragh MD (4.7%) has a higher rate than both the Dungarvan-Lismore and Waterford Metro MD (4.1%). Urban areas in Waterford recorded a rate of 3.9% (2,973) while Rural areas recorded a higher rate of 4.5% (1,844).
- Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than 5% the total population with a caring responsibility: Villierstown (5.8%), An Rinn (5.6%), Stradbally (5.5%) and Cheekpoint (5.3%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in the south west of Waterford City and in areas close to Waterford Hospital.

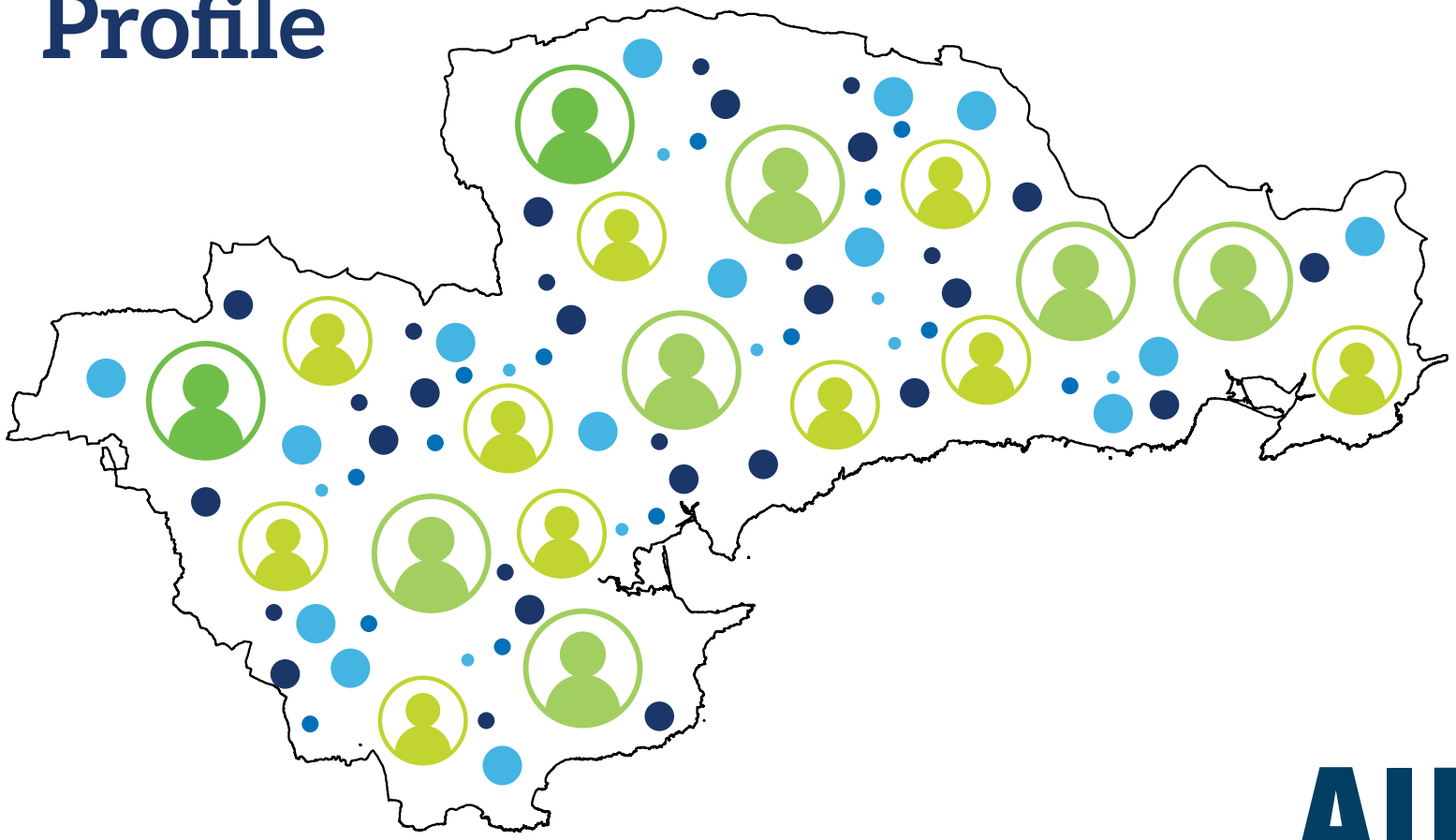
Carers: % of Total Population, 2016



Map 1.26: % Carers, 2016 (Source: CSO)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 2:
Housing Profile



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Housing Tenure: Owned with Mortgage or Loan, 2016

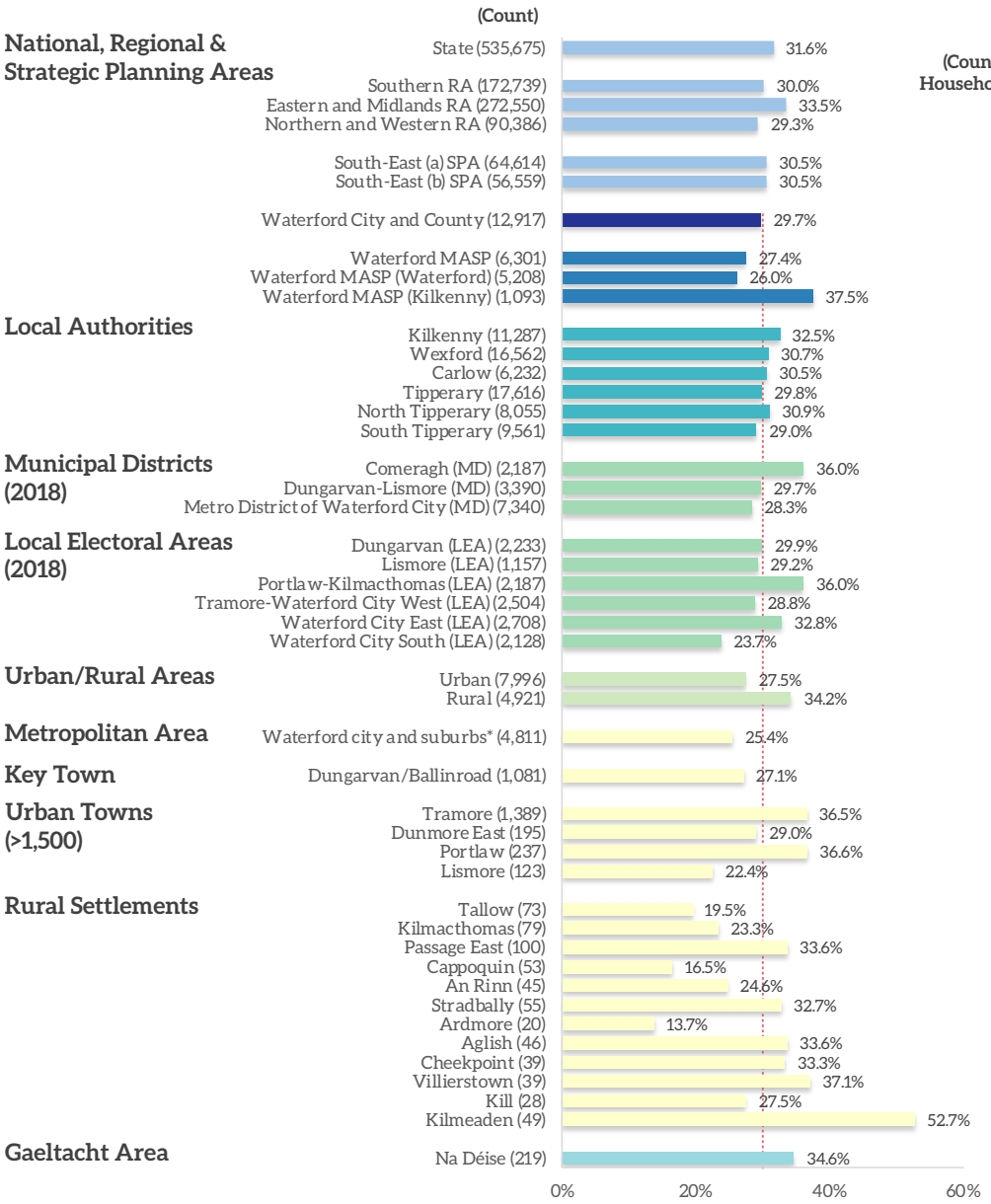


Figure 2.1: Housing Tenure - Owned with mortgage or loan, 2016 (Source: CSO)

19th Highest # in State

21st Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

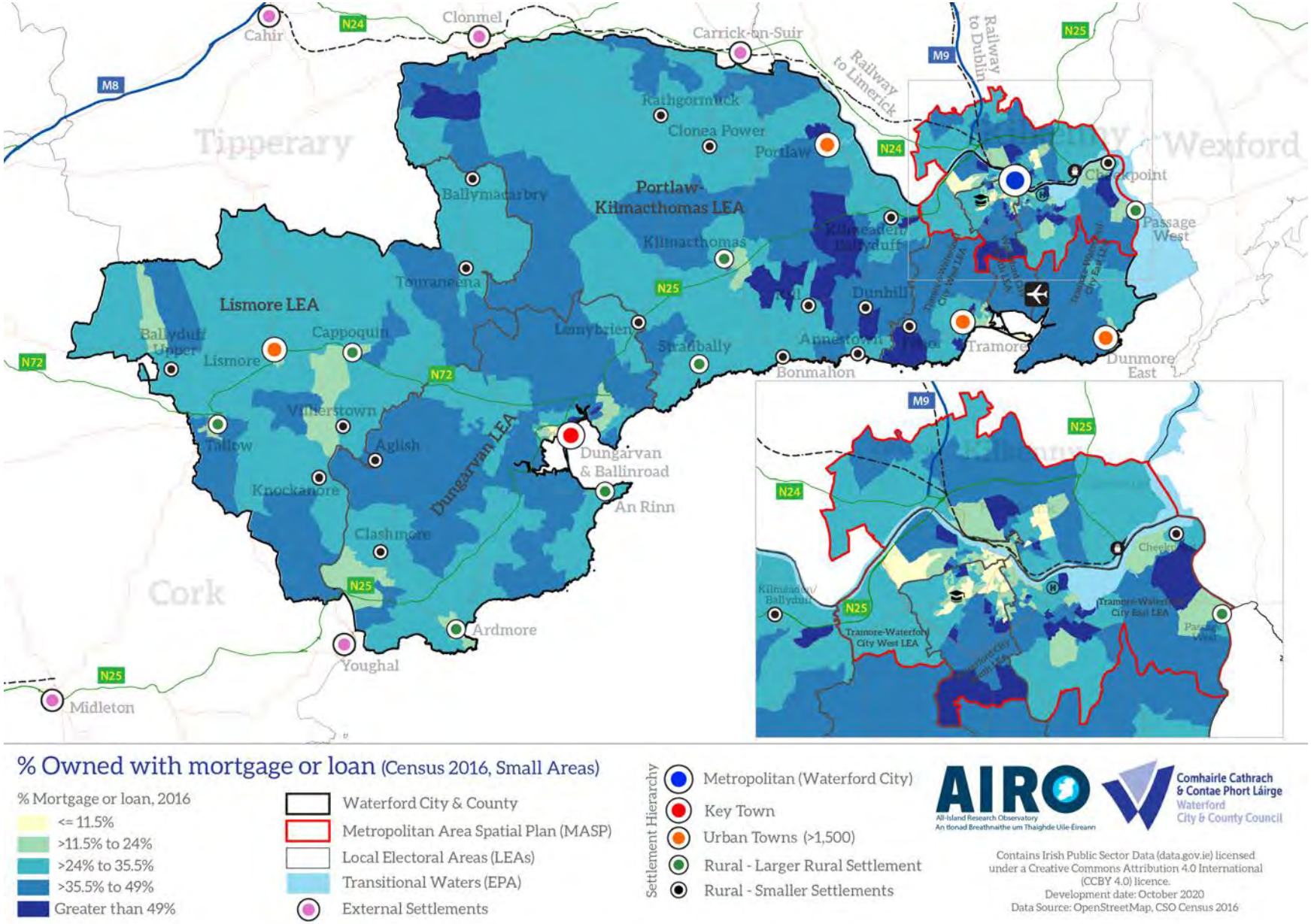
- 10.4% or -1, 502

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total households with a tenure of Owner Occupied with a Mortgage or Loan within the county is 12,917 which accounts for 29.7% of the total households - marginally below the State proportion (31.6%). This total is approximately 2.4% of the total households with a mortgage within in the State (553,567) and 7.5% residing in the SRA (172,739).
- The proportion of home ownership with a mortgage or loan in Waterford is 29.7% and is above the Waterford MASP rate (27.4%) with the Kilkenny area of the MASP recording a much higher rate at 37.5%. Across the MDs, the Comeragh MD has a rate of 36% well above the Dungarvan-Lismore (29.7%) and Waterford Metro MD (28.3%) rates. Urban areas in Waterford recorded a rate of 27.2% (7,996) while Rural areas recorded a significantly higher rate of 34.3% (4,921).
- Across the settlement hierarchy there is a great deal of variation with rural areas having a much greater variation than urban towns. Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than 35% of households with a tenure of owner occupied with a mortgage or loan: Kilmeaden (52.7%), Villierstown (37.1%), Portlaw (36.6%) and Tramore (36.5%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in peripheral areas of the city with lowest rates within the urban core.

Housing Tenure: Owned with Mortgage or Loan, 2016



Map 2.1: Housing Tenure - Owned with mortgage or loan, 2016 (Source: CSO)

Housing Tenure: Owned Outright, 2016

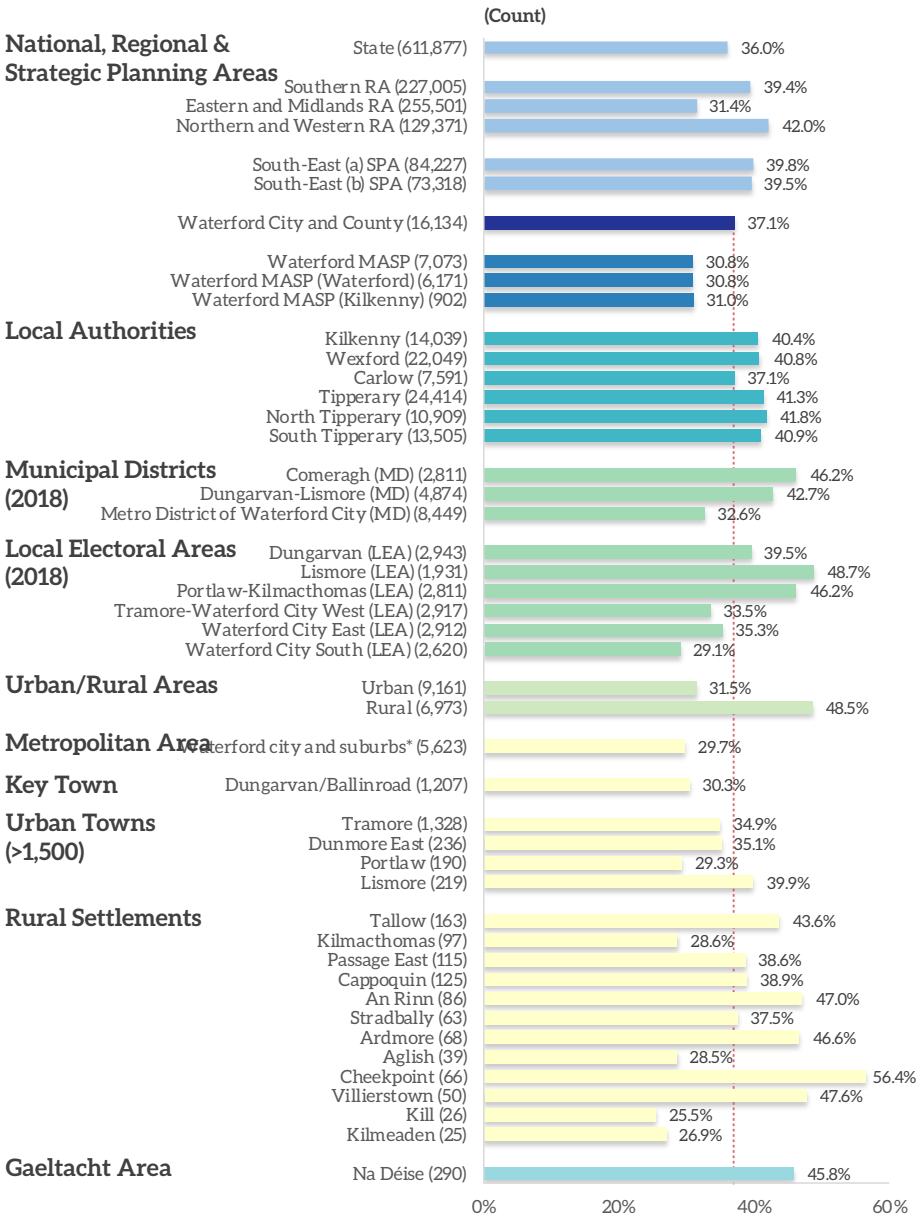


Figure 2.2: Housing Tenure - Owned outright, 2016 (Source: CSO)

18th Highest # in State

19th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

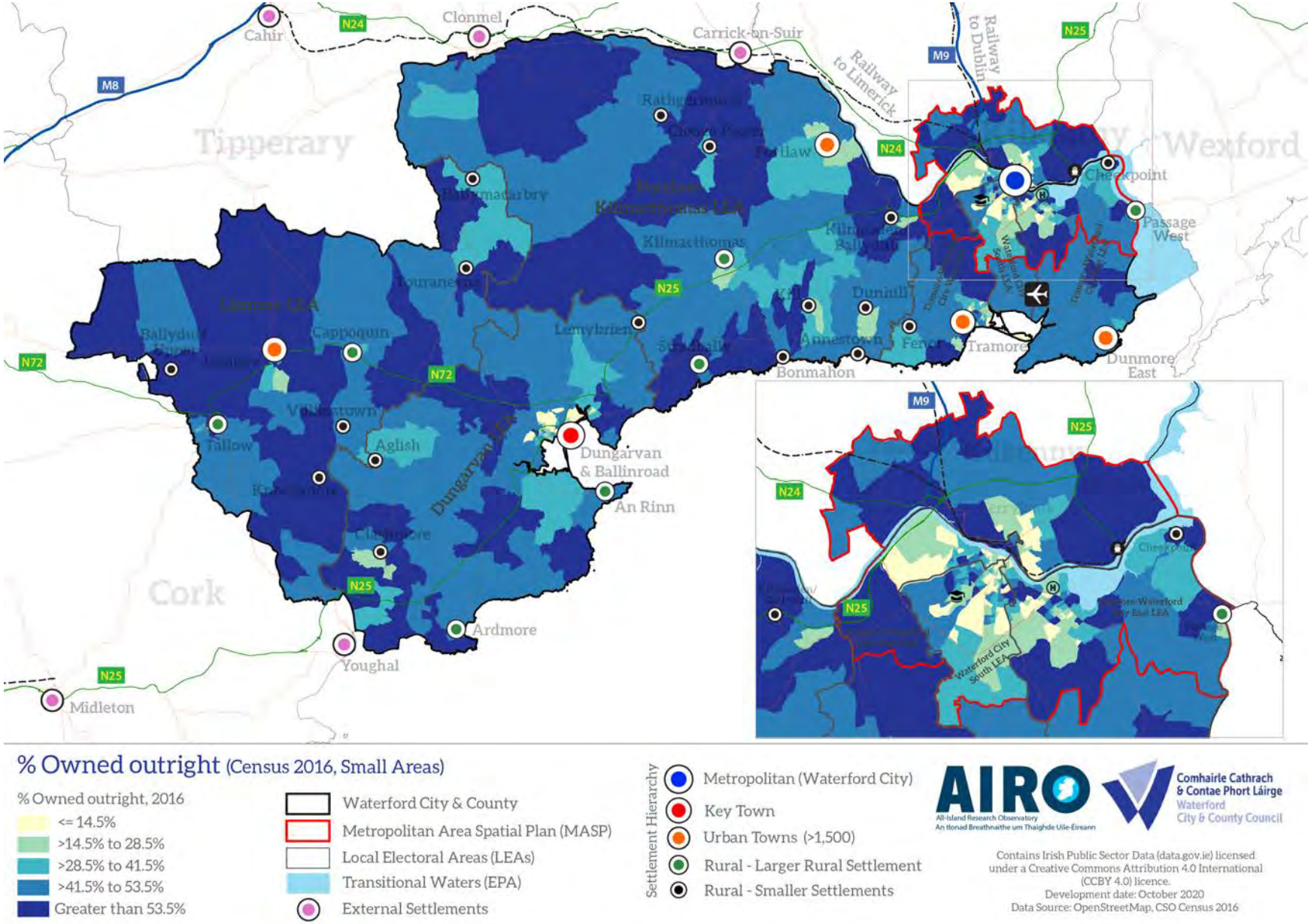
+7.2% or + 1,087

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total households Owned Outright in Waterford is 16,134 which accounts for 37.1% of the total households within the county - similar to the State proportion (36%). This total is approximately 2.6% of the total households owned outright within in the State (611,877) and 7.1% residing in the SRA (227,005).
- The proportion of home ownership without a mortgage in Waterford is 37.1% and is above the Waterford MASP rate (27.4%) - due to a higher mix of rental and social housing. Across the MDs, Comeragh MD (46.2%) has a higher rate than Dungarvan-Lismore (42.7%) and much higher than Waterford Metro MD (32.6%). Rural areas in Waterford that recorded a rate of 48.5% 6,973) and much higher than Urban areas with a rate of 30.8% (9,161).
- Across the settlement hierarchy there is a great deal of variation with rural areas generally having a higher rate than urban towns. Of all the settlements detailed in the hierarchy graphic (18), five settlements have more than 40% of households owned outright: Cheekpoint (56.4%), Villierstown (47.6%), An Rinn (47%), Ardmore (46.6%) Cheekpoint (56.4%). and Tallow (43.6%), The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area it is evident that the highest rates are primarily located in central urban core areas (older housing developments) and then in areas outside the urban footprint such as Passage West, Cheekpoint, Killoteran and Rathpatrick (Kilkenny).

Housing Tenure: Owned Outright, 2016



Map 2.2: Housing Tenure - Owned outright, 2016 (Source: CSO)

Housing Tenure: Rented from Private Landlord, 2016

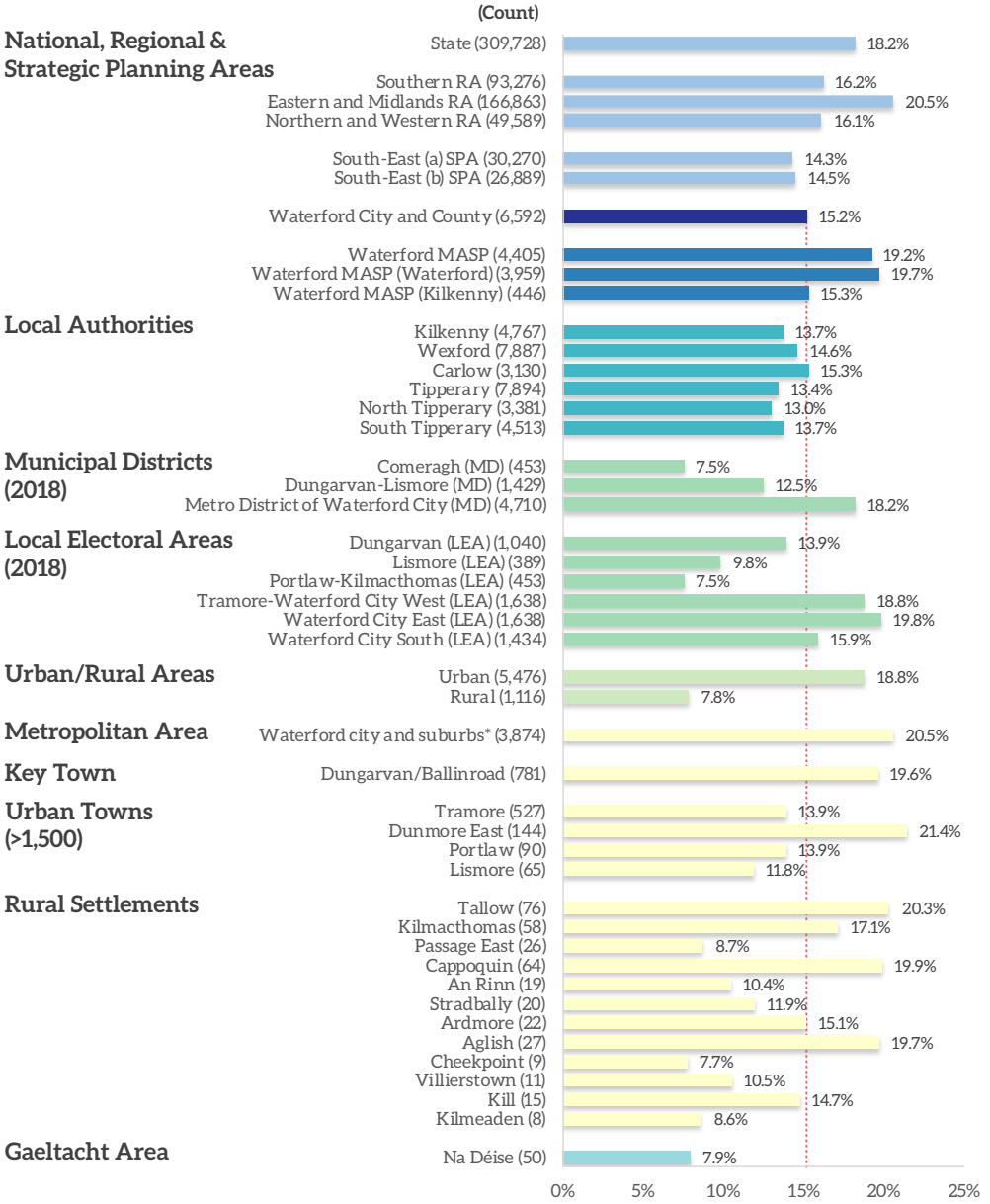


Figure 2.3: Housing Tenure - Rented from private landlord, 2016 (Source: CSO)

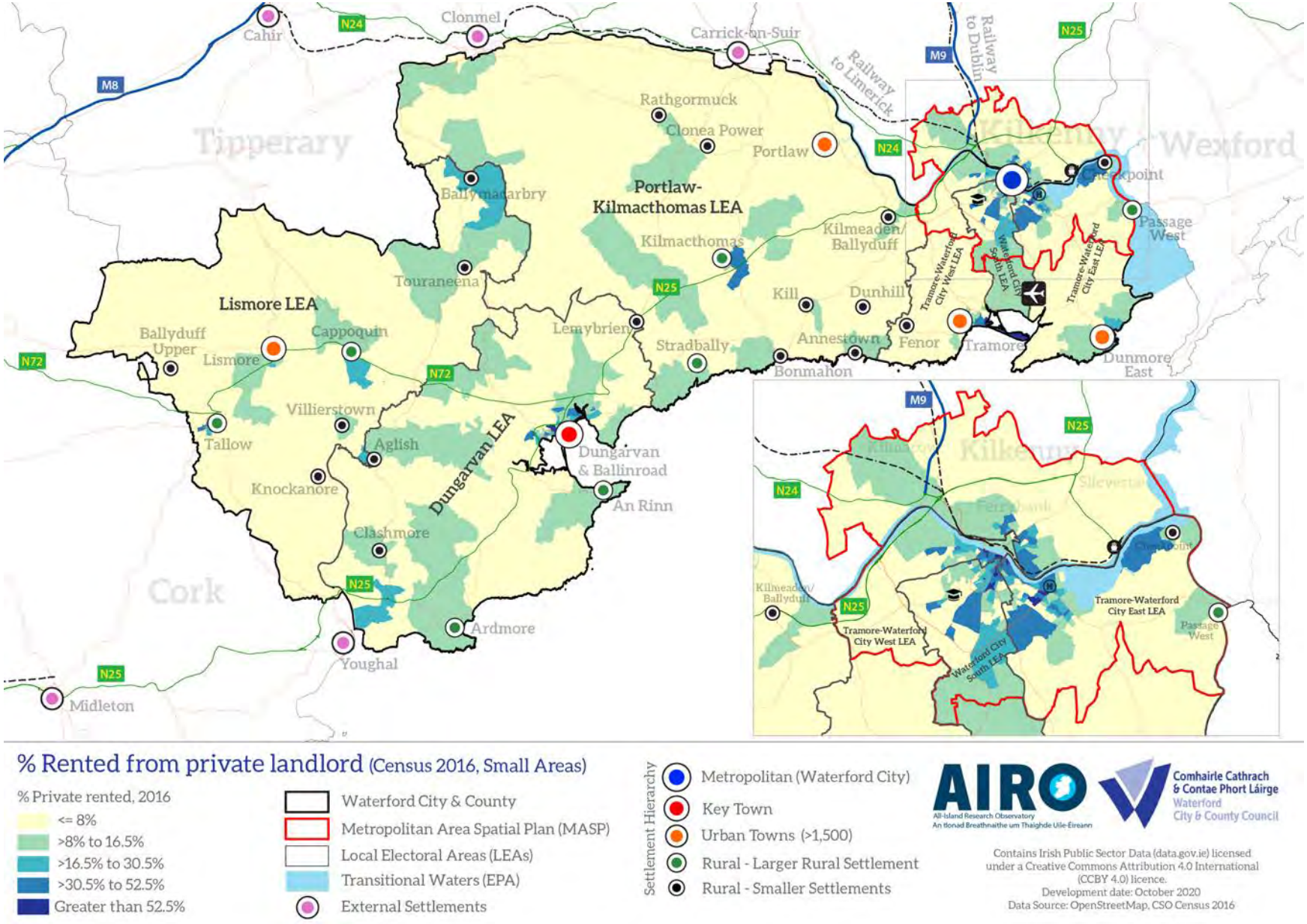
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total households Privately Rented in Waterford is 6,592 which accounts for 15.2% of the total households within the county - slightly lower than the State proportion (18.2%). This total is approximately 2.1% of the total households privately rented within in the State (309,728) and 7.1% in the SRA (93,276).
- The proportion of private renting in Waterford is 15.2% and is below the Waterford MASP rate (19.2%). Across the MDs the Comeragh MD (7.5%) is less than half than Dungarvan-Lismore (12.5%) and Waterford Metro MD (18.2%). Urban areas in Waterford recorded a rate of 18.8% (5,476) and is more than twice the rate in Rural areas at 7.8% (1,116).
- In general, there is a high degree of variation in rates across the settlement hierarchy. Of all the settlements detailed in the hierarchy graphic (18), three settlements have more than 20% of households classed as privately rented: Dunmore East (21.4%), Waterford City and Suburbs (20.5%) and Tallow (20.3%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area high pockets of private rented housing (>40%) are located in a range of locations such as the city centre (The Glen, Bilberry, Park ED), areas to the south of the Waterford Hospital (Grange Upper), Poleberry in the south of the city and then rates also >40% in areas of Kilculliheen in the Kilkenny part of the MASP.

Housing Tenure: Rented from Private Landlord, 2016



Map 2.3: Housing Tenure - Rented from private landlord, 2016 (Source: CSO)

Housing Tenure: Social Rented, 2016

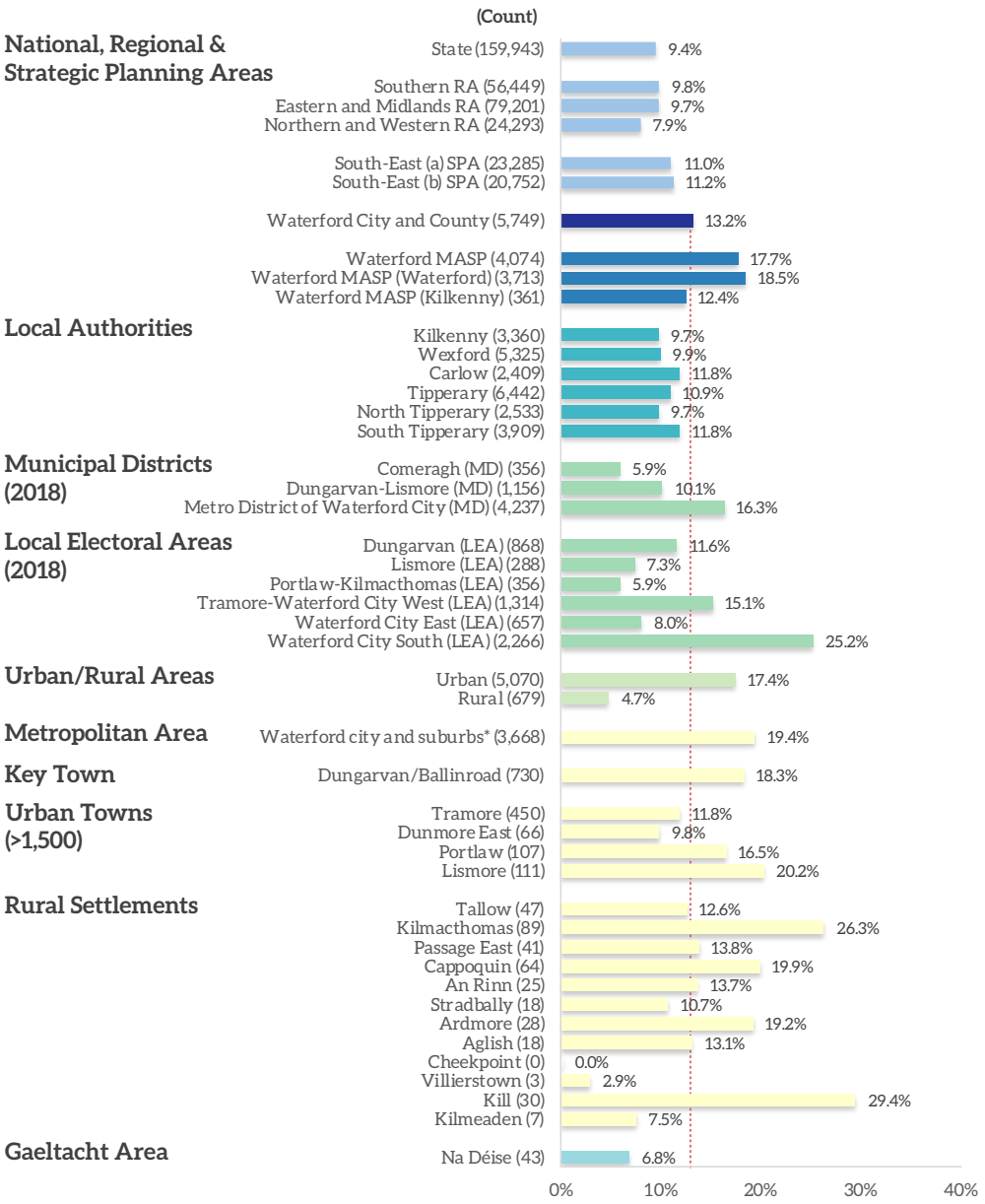


Figure 2.4: Housing Tenure - Social rented, 2016 (Source: CSO)

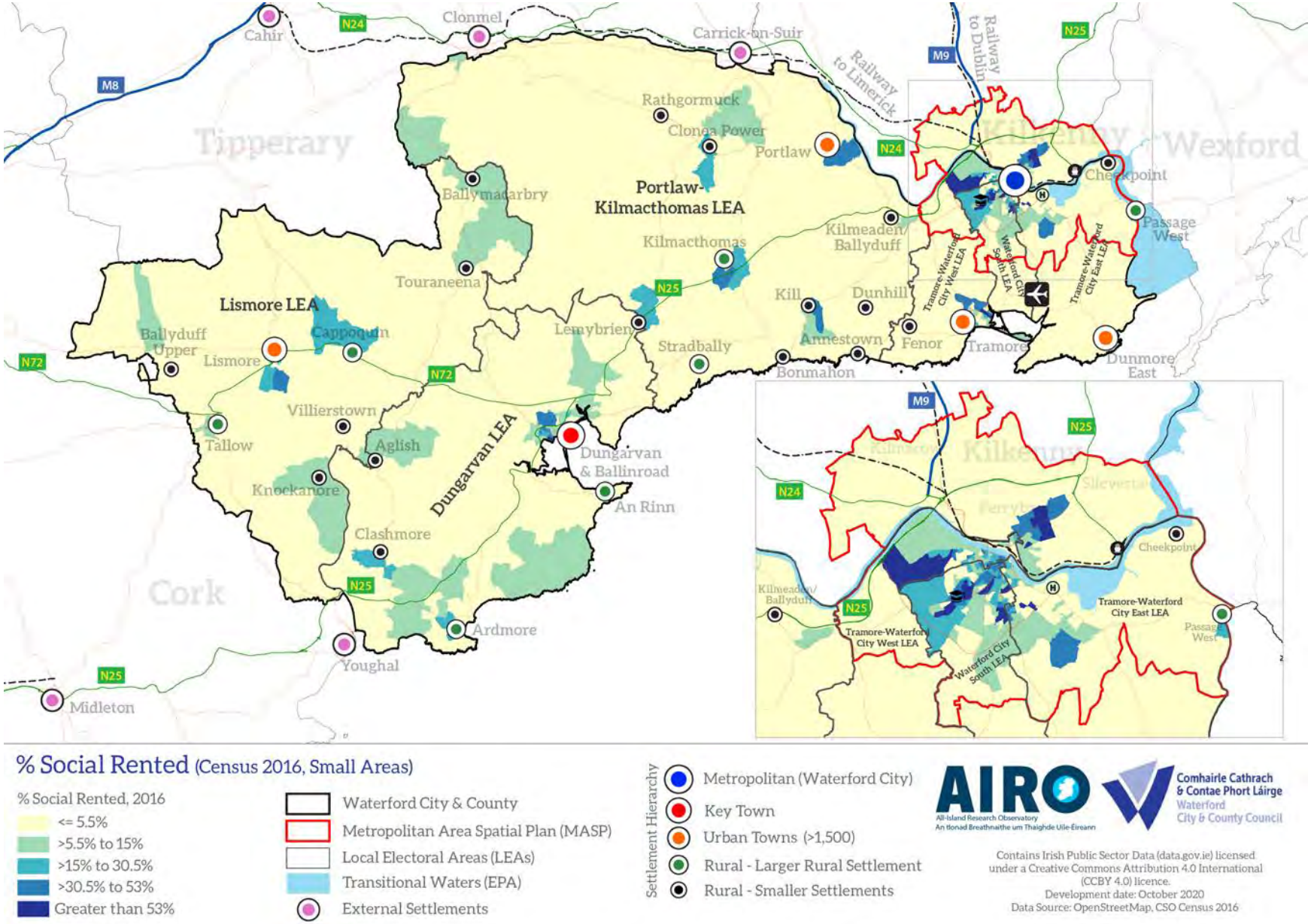
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total Social Rented households in Waterford is 5,749 which accounts for 13.2% of the total households within the county - well above the State proportion (9.4%). The rate in Waterford is the 3rd highest in the State. This total is approximately 3.6% of the total Social Rented households within in the State (159,943) and 10.2% residing in the SRA (56,449).
- The proportion of Social Rented homes in Waterford is 13.2% and is well below the Waterford MASP rate (17.7%) - the rate in the Kilkenny MASP is lower at 12.4%. Across the MDs the Comeragh MD (5.9%) has much lower rate than both the Dungarvan-Lismore (10.1%) and Waterford Metro MD (16.3%). Urban areas in Waterford recorded a rate of 18% (5,070) and is much higher than Rural areas with a rate of 4.7% (679).
- Of all the settlements detailed in the hierarchy graphic (18), three settlements have more than 20% of households that are Social Rented: Kill (29.4%), Kilmacthomas (26.3%) and Lismore (20.2%). According to the Census results, there were no social households recorded in Cheekpoint. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the areas of high social housing are easily identifiable with highest rates (>40%) in areas such as Poleberry, Ballytruckle, Ballybeg North, St John's Park, Ardmore and Gracedieu. High rates are also evident in areas in the Kilkenny MASP such as Rathculliheen and Abbeylands.

Housing Tenure: Social Rented, 2016



Map 2.4: Housing Tenure - Social rented, 2016 (Source: CSO)

Housing Vacancy: Vacancy Rate - less Holiday Homes, 2016

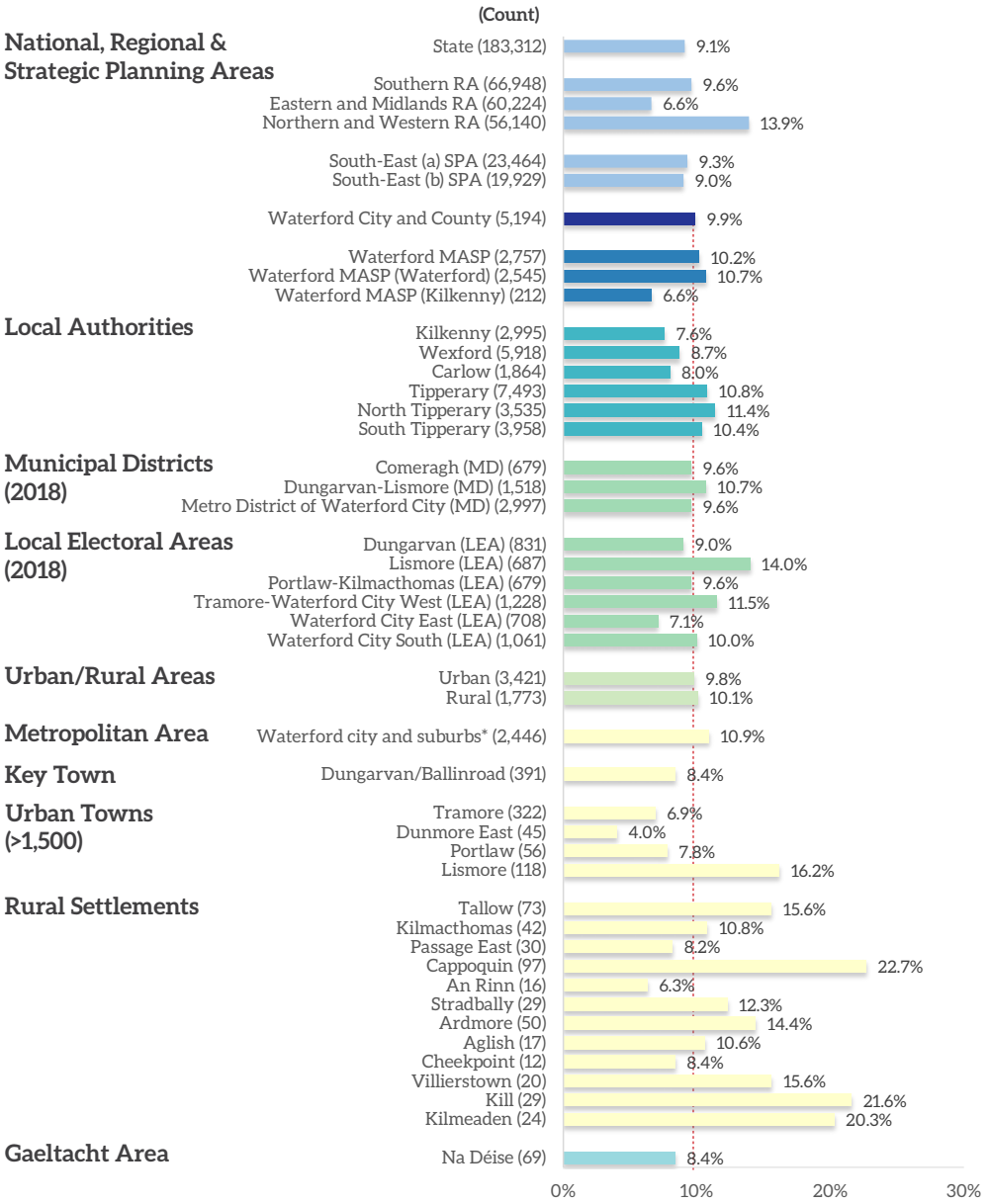


Figure 2.5: Housing - Vacancy less Holiday Homes, 2016 (Source: CSO)

13th Highest # in State

14th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

-20.3% or + 1,319

Change since 2011

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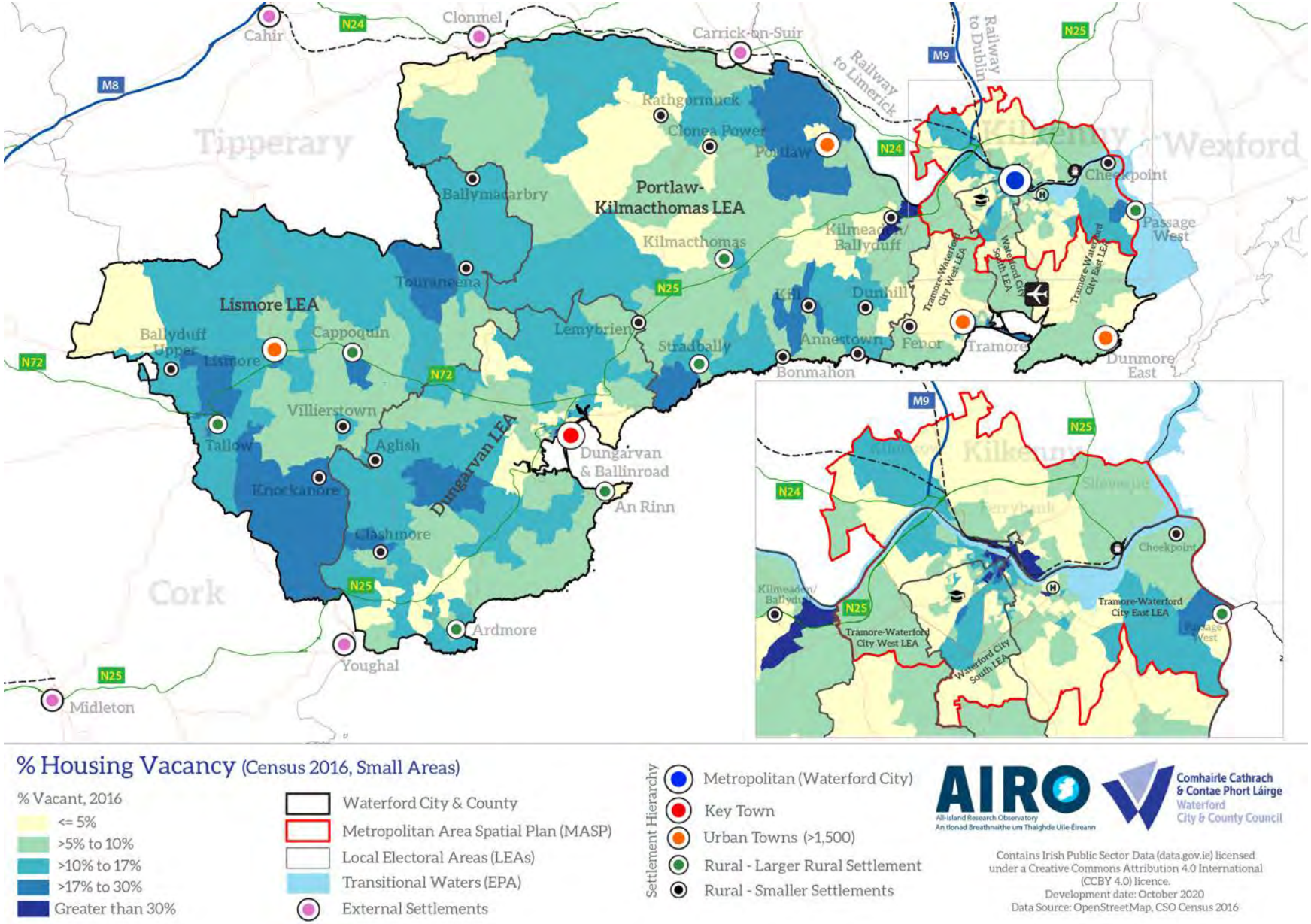
Waterford City & County Council

- According to Census 2016, the total Vacant housing stock (less holiday homes) in Waterford is 5,194 which accounts for 9.9% of the total stock within the county - higher than the State proportion (9.1%). The rate in Waterford is the 3rd highest in the State. This total is approximately 2.8% of vacant properties within in the State (183,312) and 7.7% of vacant properties in the SRA (66,948).
- The proportion of vacant units in Waterford is 9.9% and marginally below the Waterford MASP rate 10.2%) - the rate in the Kilkenny MASP is much lower at 6.6%. Across the MDs the vacancy rate is broadly similar with all MD recoding between 9.6% and 10.7%.
- There is a wide variation in vacancy rates across the settlements with recorded rates ranging from 4% (Dunmore East) to 22.7% (Cappoquin). Of all the settlements detailed in the hierarchy graphic (18), three settlements have more than 20% of housing units classed as vacant (less holiday homes): Cappoquin (22.7%), Kill (21.6%) and Kilmeaden (20.3%). Within the Urban Towns, Lismore stands out with a rate of 16.2% - more than double the rate of other settlements. The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the areas of vacancy are in the urban core of Waterford City. Rates are also particularly high (>30%) in the north of Waterford City in the Ferrybank area.

Housing Vacancy: Vacancy Rate - less Holiday Homes, 2016



Map 2.5: Housing - Vacancy less Holiday Homes, 2016 (Source: CSO)

Detailed Housing Vacancy - excluding Holiday Homes, 2016

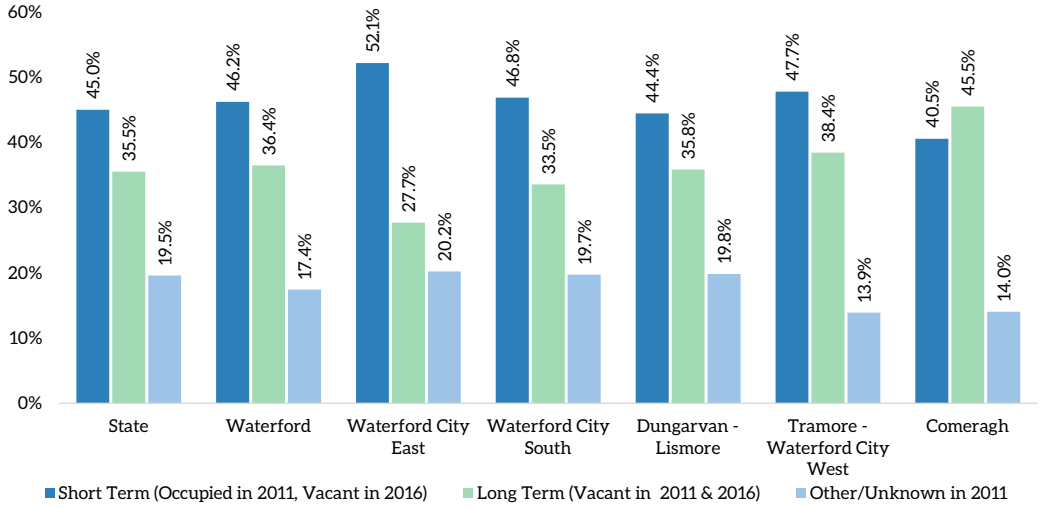


Figure 2.6: Short Term/Long Term Vacancy, 2016 (Source: CSO)

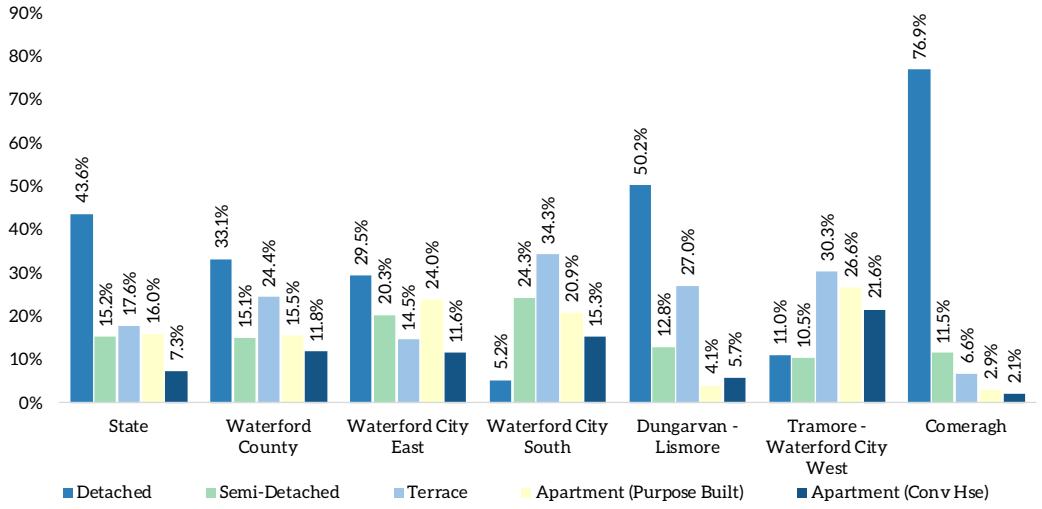


Figure 2.7: Vacant Houses by Property Type, 2016 (Source: CSO)

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- The figures on the left provide a breakdown of the length (of time) of housing vacancy in Waterford. In Ireland and in Waterford, almost half of vacant dwellings were short-term vacant; with the corresponding figures being 45% and 46.2% respectively. There is a high level of variation within the LEAs with the Comeragh LEA having a short-term vacancy rate of 40.5% and Waterford City East LEA with 52.1%. The long-term vacancy rate in Waterford is 36.4% and broadly similar to the national rate of 35.5%. Within the LEAs the highest long-term rate was recorded in Comeragh (45.5%).

- Across Ireland, detached houses represent the single largest component of vacant housing types; they account for 43.6% of all vacant units, while terraced houses account for 17% of vacant units. Across Waterford, the pattern is reflective of the picture across Ireland, with detached houses representing the single largest component of vacant dwellings. Within Waterford the highest proportion of vacant properties are Detached (33.1%) followed by Terrace (24.4%), Apartment - Purpose Built (15.5%), Semi-Detached (15.1%) and Apartment - Converted House (11.8%). Across the LEAs there is quite a variation in rates with the Dungarvan-Lismore and Comeragh LEAs standing out with very high rates of Detached vacancy at 50.2% and 76.9%, respectively.

Detailed Housing Vacancy - excluding Holiday Homes, 2016

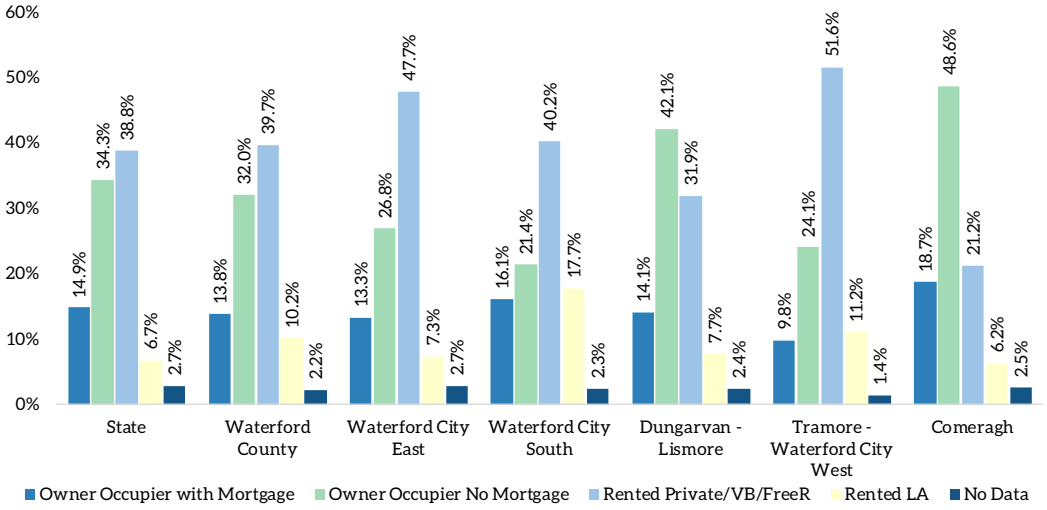


Figure 2.8: Vacant Housing by Tenure Status of Previous Occupant (Source: CSO)

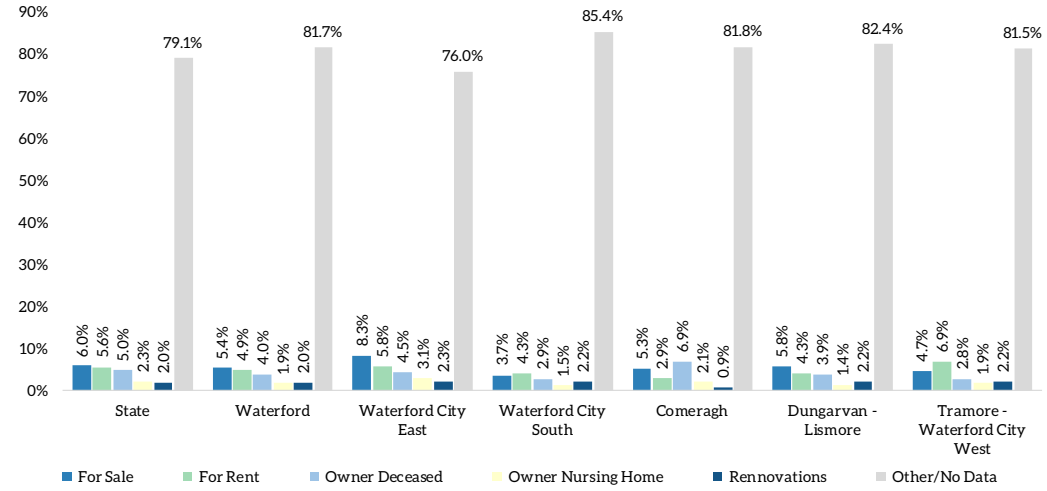


Figure 2.9: Vacant Property by Reason for Vacancy, 2016 (Source: CSO)

- The set of bar graphs to the left provide a breakdown of the tenure of housing vacancy. In Ireland and in Waterford, owner-occupier mortgage-free properties account for over one-third of vacant housing units (previous tenant); the respective figures are 34.3% and 32%. In Ireland, private rental properties account for a slightly lower proportion of vacant units at 38.8%, than in Waterford (39.7%). The proportion of private rented housing units that are vacant is higher in Waterford than in the State; the figures being 10.2% and 6.7% respectively. It is worth noting that housing vacancy rates, across Ireland, have fallen since 2016, but the figures presented here are the most up-to-date in respect of tenure.

- As is the case across Ireland, there are no specific reasons given for the vacancy rates among Waterford's housing stock. Specific reasons are only recorded / reported in respect of approximately one-quarter of vacancies. Among these, the most frequently cited reason, across the State, is that the property is for sale - this is the same for Waterford.

GeoDirectory Housing Vacancy, Q2 2020

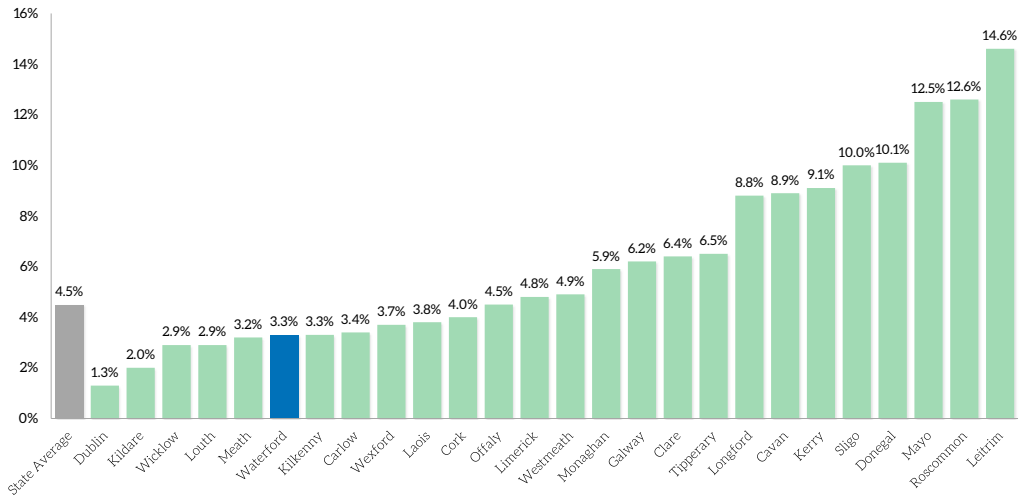
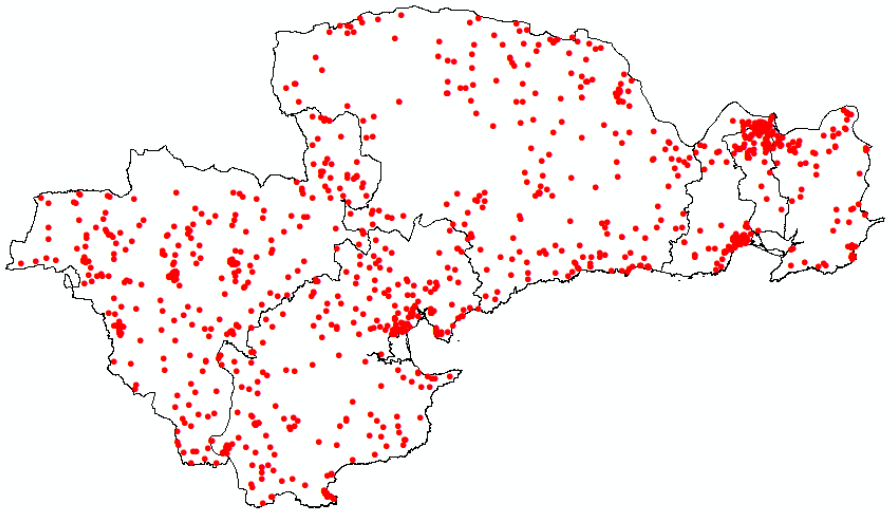


Figure 2.10: GeoDirectory Housing Vacancy, Q2 2020



Map 2.6: GeoDirectory Housing Vacancy, Q2 2020

- The main source of data on vacant units is the Census of Population, which measures the vacant residential stock every five years. GeoDirectory provides an estimate of the stock of vacant units at any point in time, with the figures reported every six months in the GeoView publication. For the first time, GeoDirectory reported a vacant stock of 96,243 address points or units in April 2017, while the 2016 Census (April 2016) reported a vacant stock of 183,312 address points or units. As such, the GeoDirectory figure a year after Census 2016 was around half the Census figure, which is a substantial difference. Considerable debate is on-going around the relative accuracy and methodologies in use behind both measures. However, taking these methodological difference on board it is still possible to use GeoDirectory vacancy as a measure of the relative performance of Waterford with other local authorities. It also provides useful time-series data on vacancy.
- The most recently published data on housing vacancy in Ireland (Q2 2020) is available through GeoDirectory These are extracted from the GeoDirectory for Ireland, and unlike census data, are not published at sub-county level. The county-level data indicate a marginal decline in the vacancy rate, with the overall vacancy level in Waterford decreasing from 3.8% in Q2 2017 to 3% in Q2 2020 - the sixth lowest rate in the country. Relative to other counties in the Southern Region, Waterford has the same rate as Kilkenny (3.3%) and marginally below that of Carlow (3.4%) and Wexford (3.7%).
- The settlement profiles in this report provide a detailed overview of the location of vacant properties across the main towns in Waterford.

Housing Completions, 2011 to 2020 (Q2)

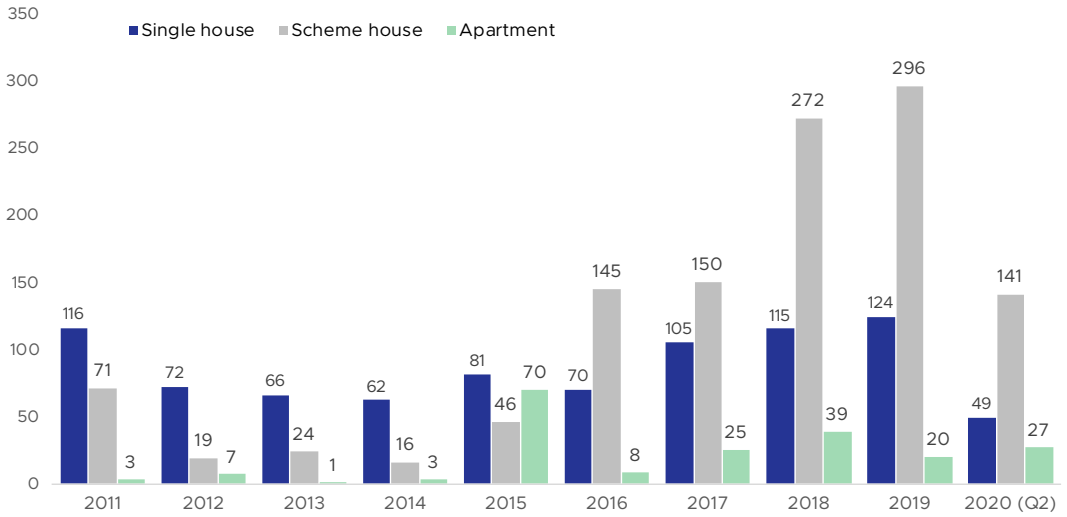


Figure 2.11: Total Housing Completions Waterford by Type 2011 to 2020 Q2 (Source: CSO)

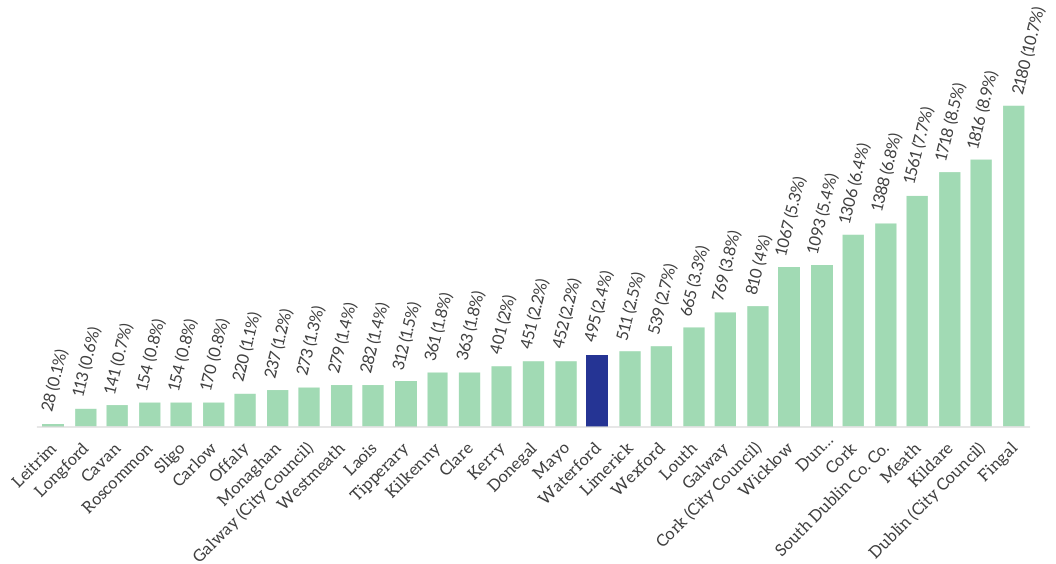


Figure 2.12: Total Housing Completions Last 12 Months (2019Q3 to 2020Q2) (Source: CSO)

- As the first clustered bar graph illustrates, there has been considerable change in housing construction in Waterford between 2011 and 2020. This change is evident in respect of the volume and type of housing. The total volume of house building, which had begun to decline in 2009 reached a floor in 2014, showed signs of a levelling off and a slight increase up to 2017, and increased considerably in 2018. The total number of units built, in Waterford, in 2011 was 190. By 2013, this had fallen to a low of 81, but in 2018, it recovered to an output of 440 units.
- Over the course of the years shown on this graph, there was also a change in the type of housing being built. In the years of decline (2011 to 2014), single houses represented the dominant unit type, and they accounted for the majority of units built between 2014 and 2015, inclusive. The number of new houses in schemes increased from 16 in 2014 to 145 in 2016, and in 2019, these accounted for over two-thirds (67%) of all units built in the county with a total of 296.
- In the year to Q2 2020 there were a total of 495 new housing units completed in Waterford. This accounts for 2.4% of the total units completed across the State.

Rental Accommodation Scheme (RAS), 2019

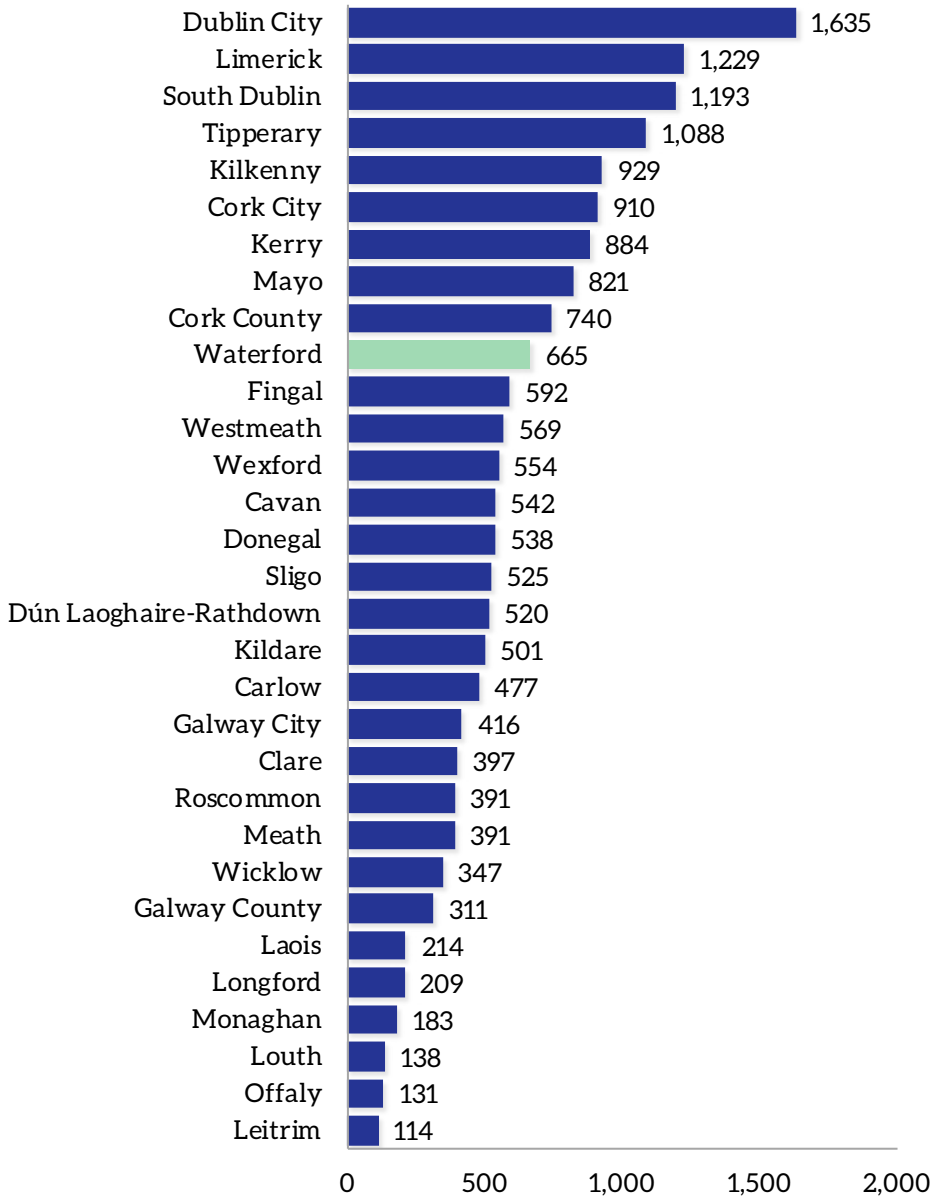


Figure 2.13: Rental Accommodation Scheme, 2019 (Source: DHPLG)

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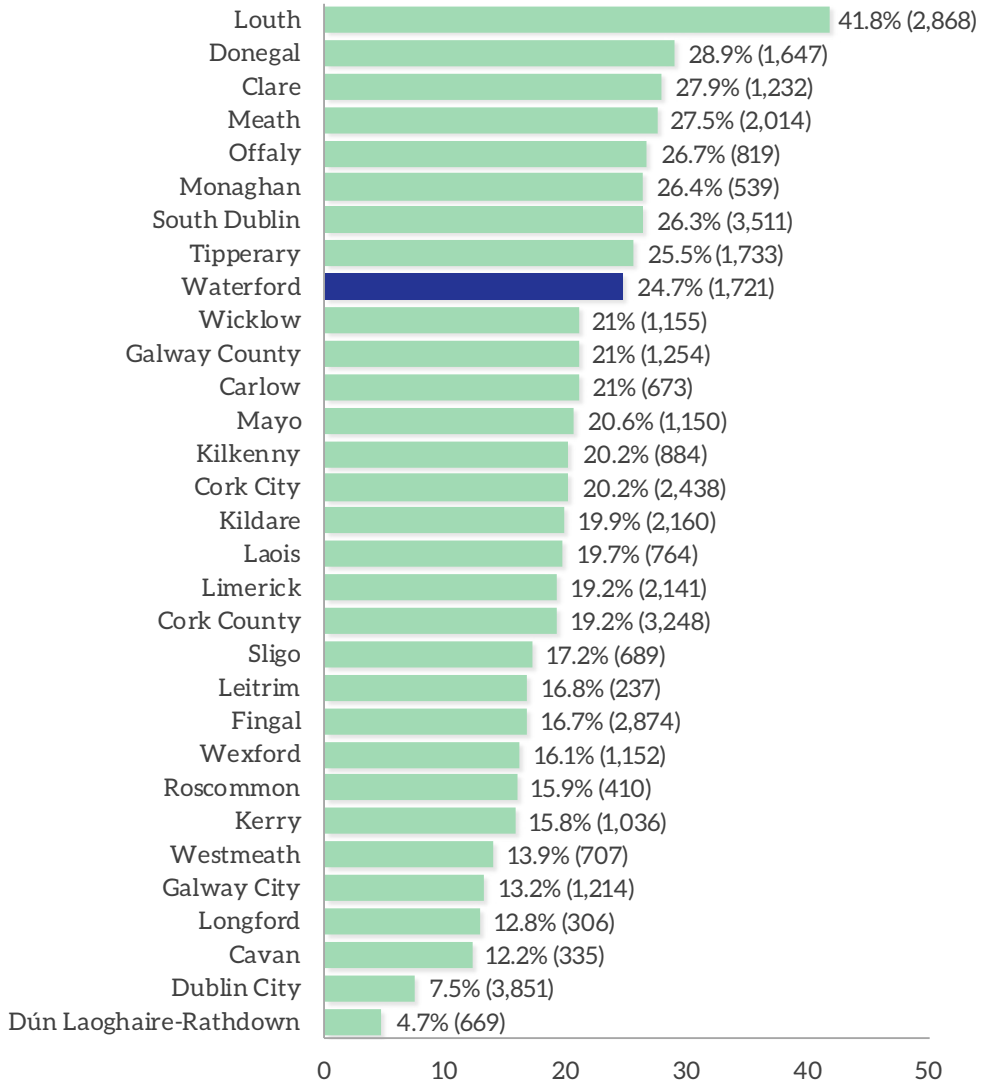
- The Rental Accommodation Scheme (RAS) is a social housing support for persons who are in receipt of long-term rent supplement. The RAS scheme is run by local authorities. Under RAS, local authorities draw up contracts with landlords to provide housing for an agreed term for people with a long-term housing need. The local authority pays the rent directly to the landlord on behalf of the tenant.
- According to the latest DHPLG statistics on RAS there were 665 RAS tenancies in Waterford in 2019, the tenth highest number in the State. This accounts for 3.7% of all RAS tenancies in the State (17,763).
- The above graphic provides details on RAS tenancies within local authorities - highest numbers are in Dublin City, Limerick, South Dublin and Tipperary.

Housing Assistance Payments (HAP), Q2 2019

HAP Tenancies as percentage of RTB* Registered Properties



* All Private Rental Tenancies must be registered with the Residential Tenancies Board

Figure 2.14: Housing Assistance Payments (HAP), Q2 2019 (Source: DHPLG)

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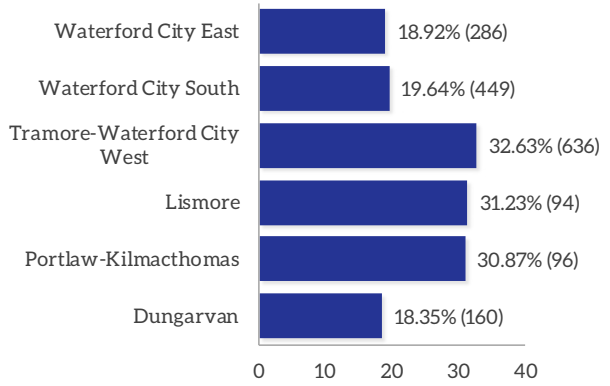
Waterford City & County Council

- HAP is a form of social housing support provided by all local authorities. HAP means that local authorities can provide housing assistance for households who qualify for social housing support, including many long-term Rent Supplement recipients. Under HAP, local authorities will make payments, subject to rent limits, on behalf of the HAP recipient directly to the landlord in respect of rent. The HAP recipient will then pay a rent contribution to the local authority. The rent contribution is a differential rent – that is, a rent set by the local authority based on income and the ability to pay
- According to the latest CSO statistics on HAP Tenancies (Q2 2019), there are now a total of 1,721 HAP tenancies in Waterford, the eleventh highest number compared to all other counties. Almost a quarter (24.7%) of private rental properties in Waterford are supported by HAP. This is the ninth highest rate in the State
- In the graphic below, three of five LEAs in Waterford record rates higher than 30%. Tramore-Waterford City West recorded the highest rate of 32.6%.

% HAP Properties by LEA



Rent Supplement per 1,000 Private Rented Households, 2019

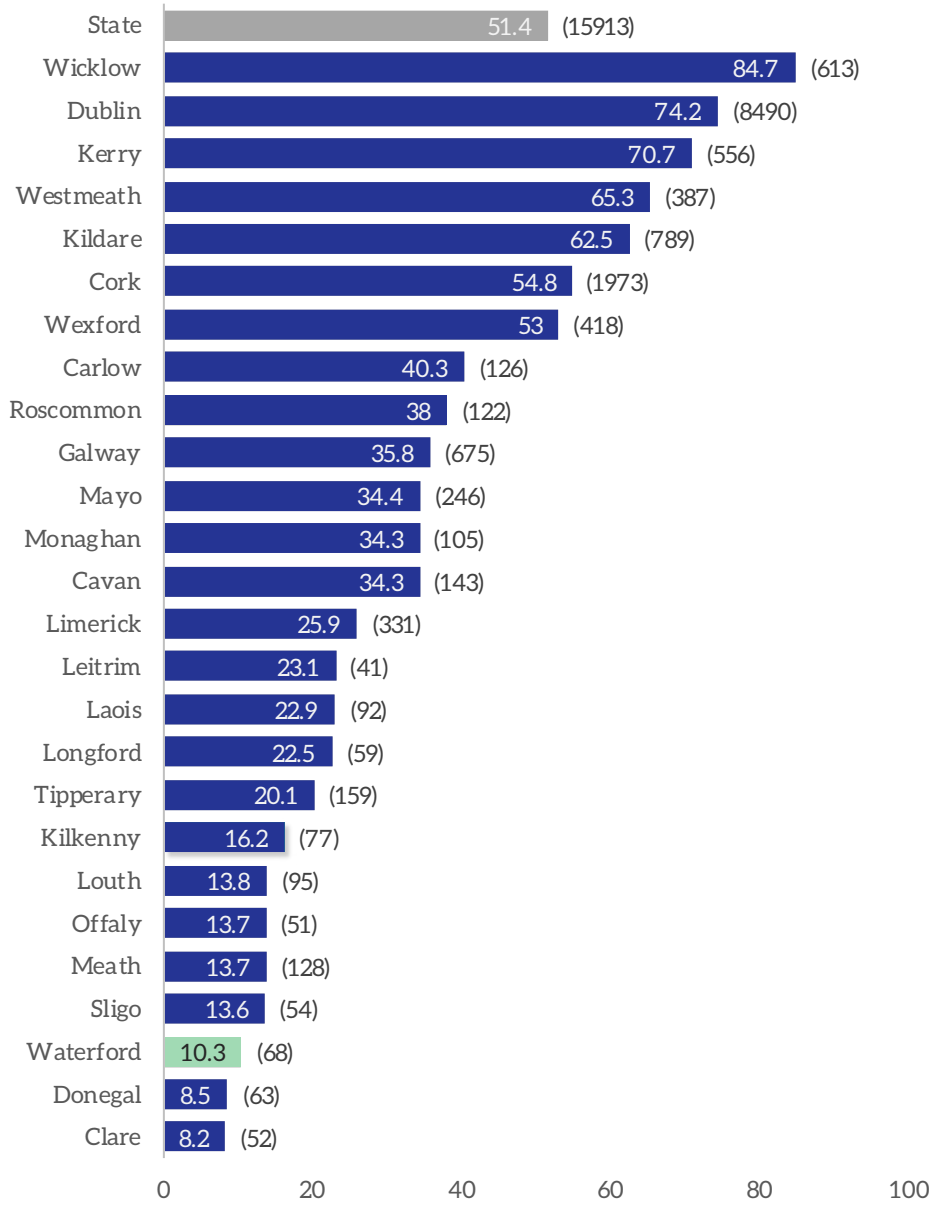


Figure 2.15: Rate of Rent Supplement per 1,000 Private Households, 2019 (Source: DSP)

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- Rent Supplement is a means-tested payment for certain people living in private rented accommodation who cannot provide for the cost of their accommodation from their own resources. It is a short-term income support for people in the private rented sector.
- According to the latest DSP statistics on Rent Supplement there were 68 households in receipt of Rent Supplement in Waterford in 2019. This is a rate of 10.3 per 1,000 households, the is the third lowest rate compared to all other counties.
- The highest rate was recorded in Wicklow (84.7 per 1,000 households), followed by Dublin (74.2 per 1,000 households) and Kerry (70.7 per 1,000 households). The lowest rates were seen in Donegal (8.5 per 1,000 households) and Clare (8.2 per 1,000 households).

Mean Sale Price, 2019 M9 to 2020 M8

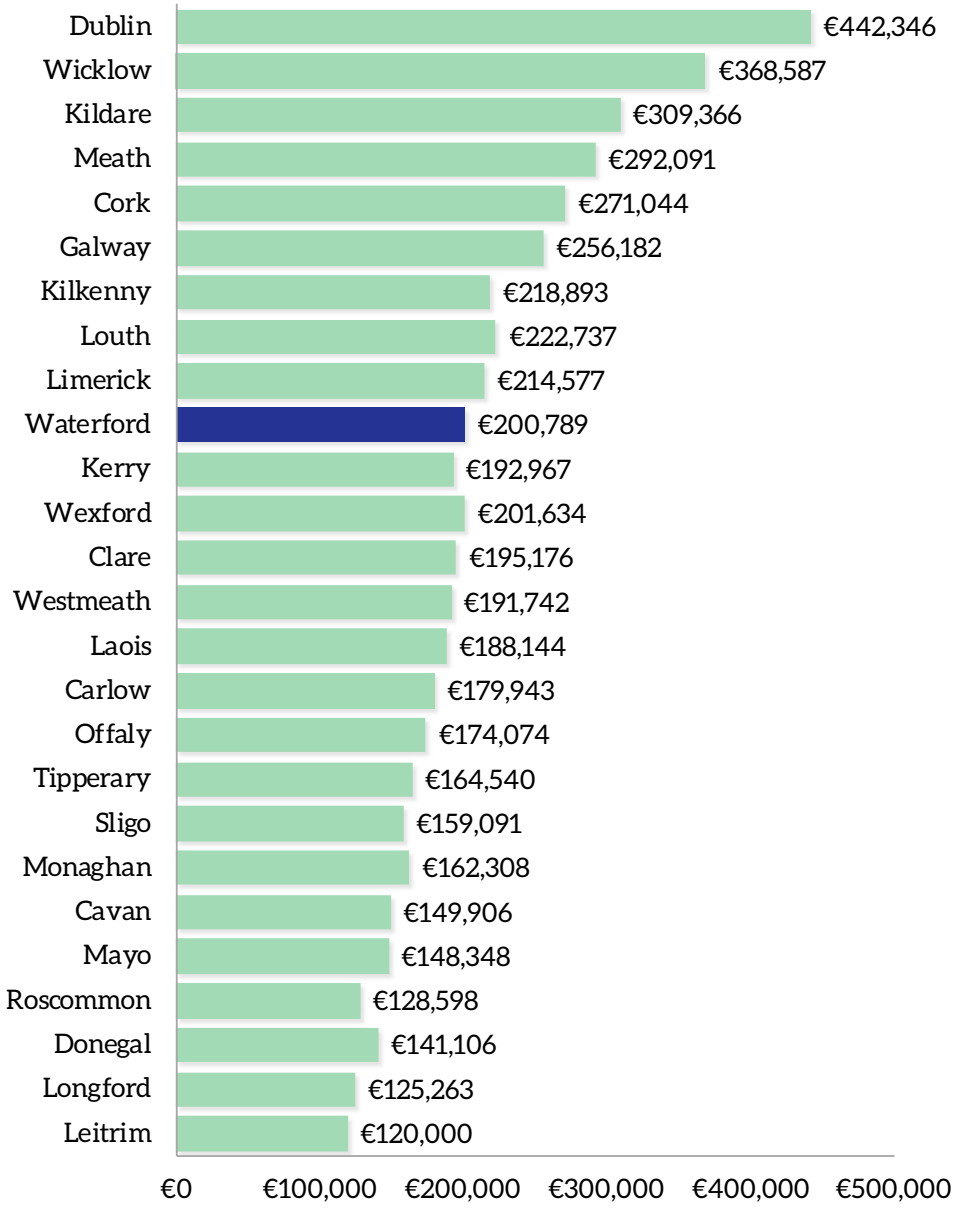
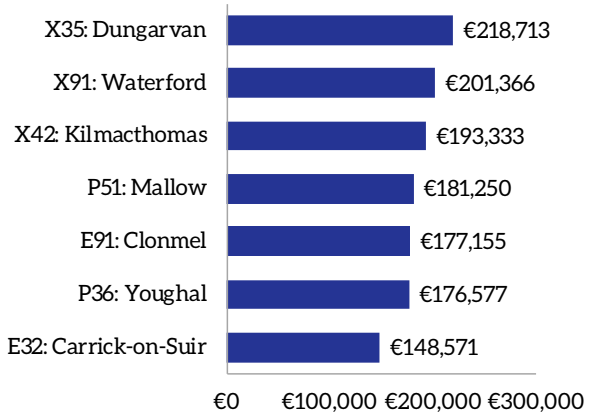


Figure 2.16: Mean Sale Price, 2018 M11 to 2019 M12 (Source: CSO RPPI)

- The mean sale price of a residential property in Waterford, based on the average price paid over the twelve months to August 2020, was €200,789. As the bar graph shows, Waterford ranks tenth in Ireland in respect of the mean sale price by county. With the exceptions of the counties that contain cities, namely Cork, Limerick and Galway all the counties that are placed above Waterford are in the wider commuter catchment of Dublin. Within the Southern Region and South-East, Kilkenny is the only county with a higher mean sale price at €218,893.
- Within Waterford, there are differentials in respect of the mean sale price of a home. Such data are not published at MD or local electoral area level. Instead, we are obliged to use the Eircode Routing Key (district post office) areas to obtain sub-county data, whilst acknowledging that these do not neatly align with county boundaries. This dataset reveals that mean sale prices range from €148,571 in E32 Carrick-on-Suir to nearly €218,713 in the X35 Dungarvan. The Waterford area (X91) is below this at €201,366.

Mean Price: Eircode Routing Key



Volume of Sales, 2019 M9 to 2020 M8

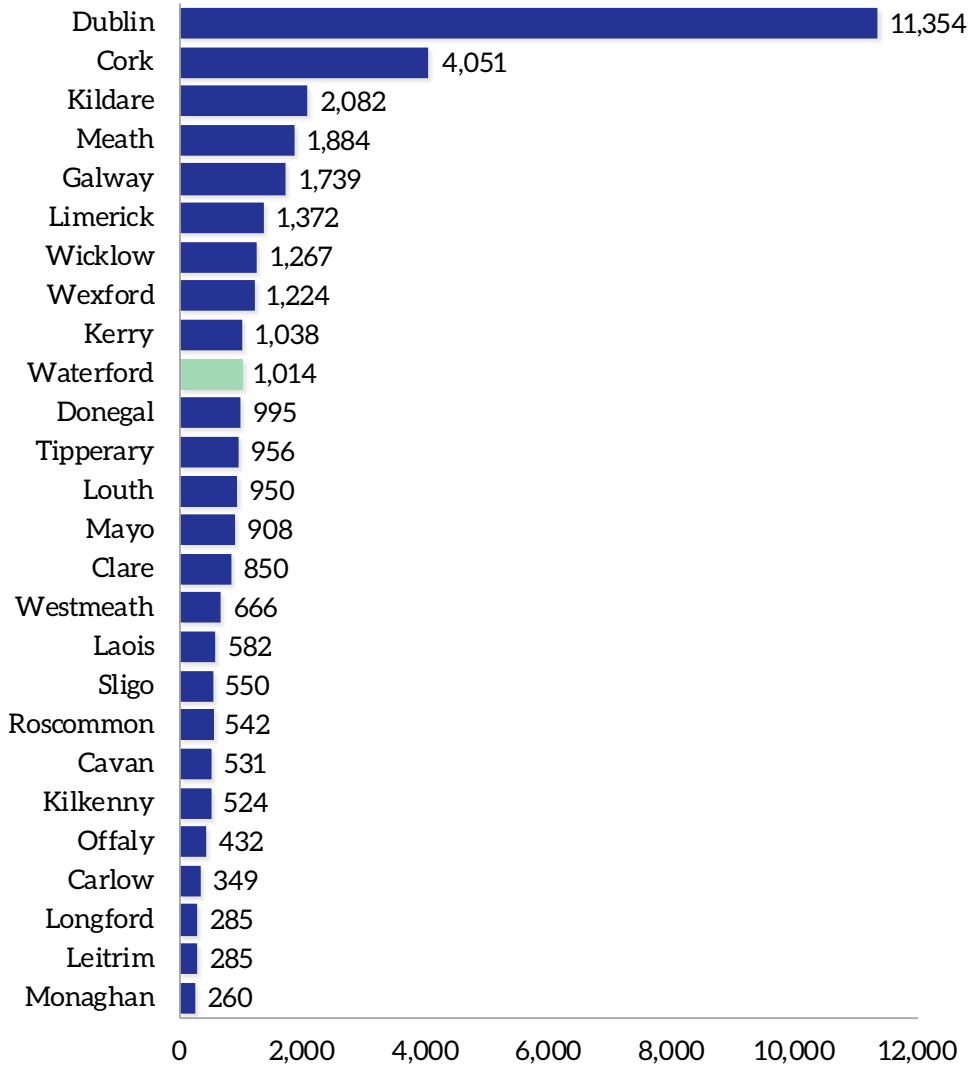


Figure 2.17: Volume of Sales, 2019 M9 to 2020 M8 (Source: CSO RPPI)

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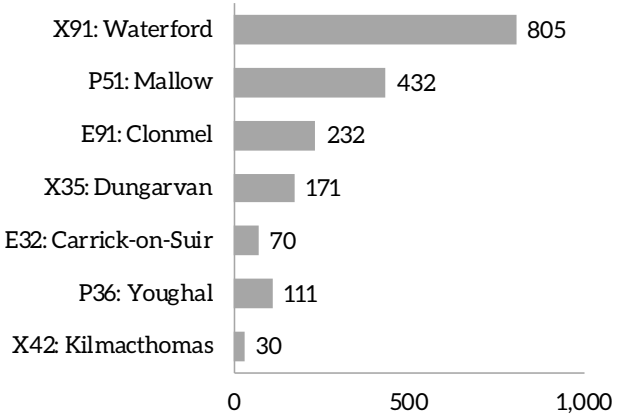
- Data in respect of the volume of housing sales in the twelve months to August 2020 reveal that there were 1,014 housing sales in Waterford. This is the tenth highest level of transactions across all counties. With the exception of Wexford, this is highest level of transactions within the South-East SPA.
- The proxy sub-county data, as derived through the Eircode Routing Key geography, suggest that proximity to urban centres is a driver of activity, as the volume of sales is greater in the Waterford, Mallow and Clonmel routing key geographies. Note: Eircode Routing Key geographies do not nest within county geographies.

Mean Price: Eircode Routing Key



Average Rental Price, Q3 2020

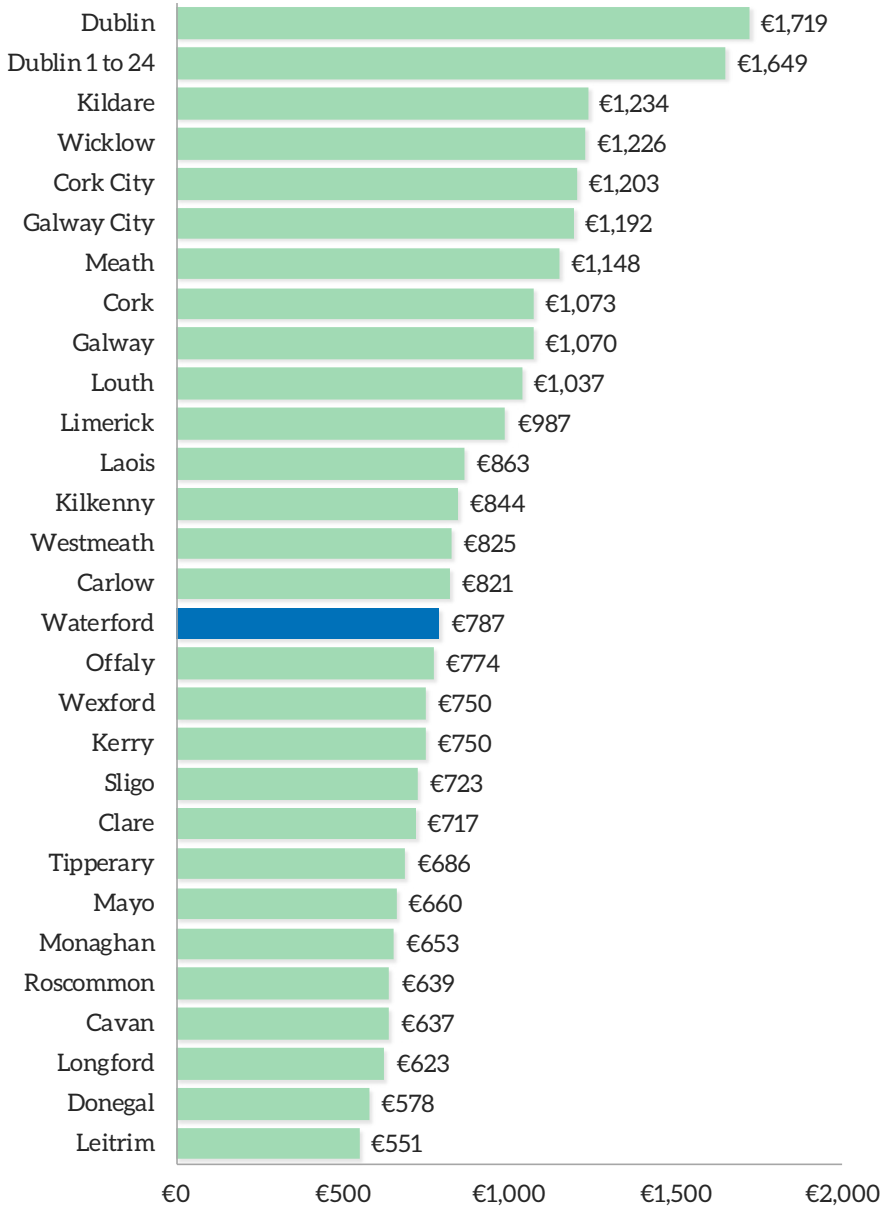


Figure 2.18: Average Rental Price, Q3 20xx (Source: RTB)

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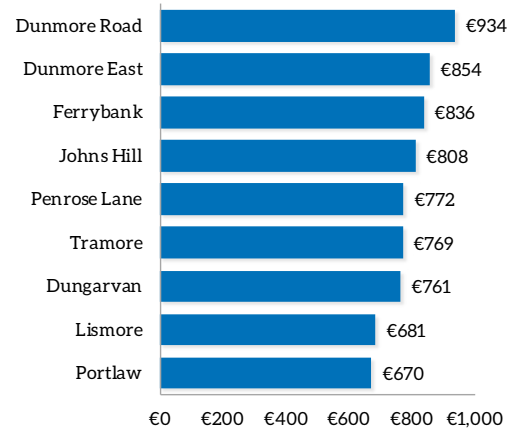
- Figure 2.18 shows the Average Rental Price for Q3 2020. Waterford recorded an average rental price of €787, fourteenth lowest compared to all other counties. Dublin recorded the highest rental price at €1,719, while the Dublin postal districts 1 to 24 recorded an average rental price of €1,649. Leitrim recorded an average rental of just €551.

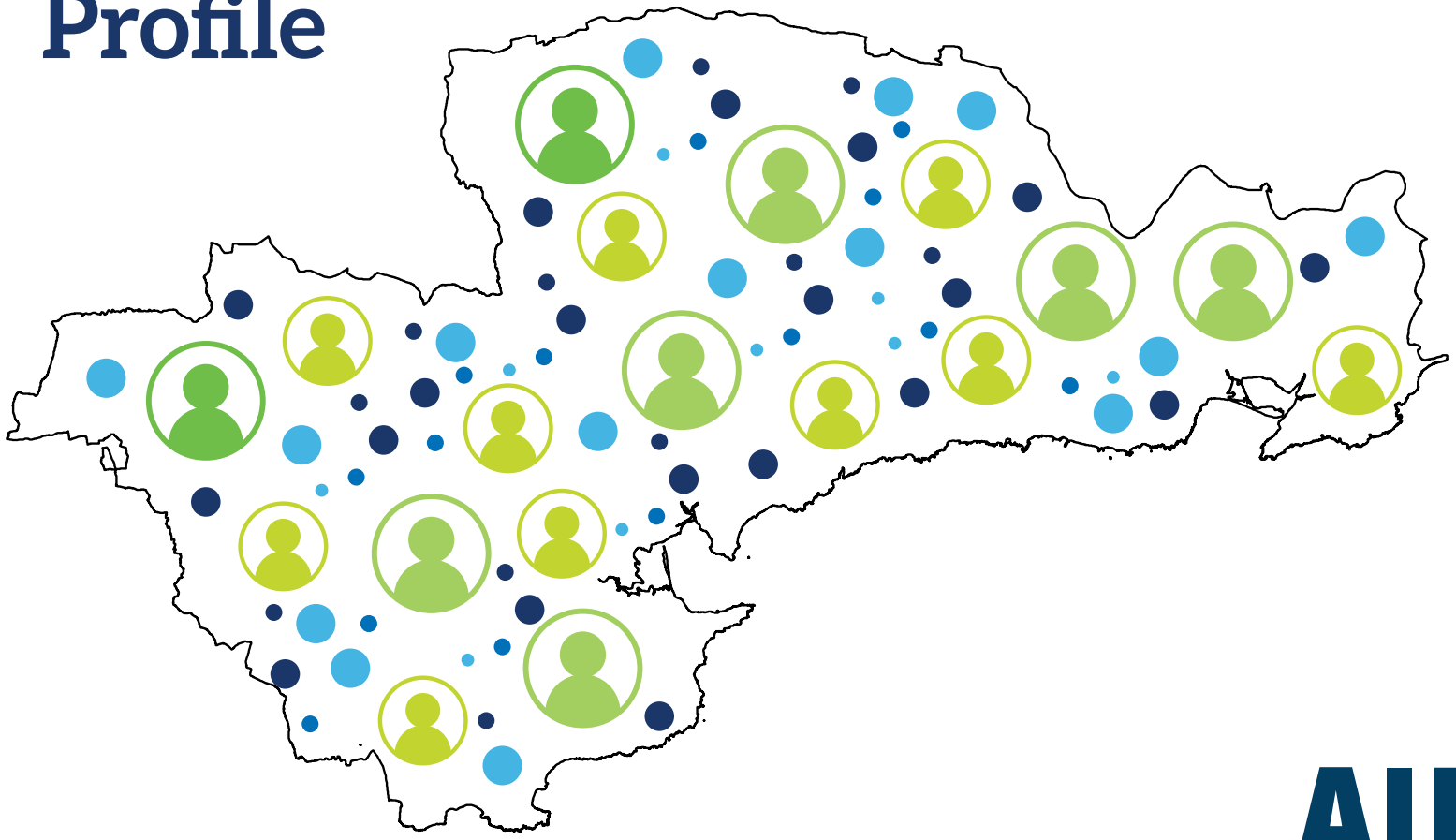
- In the graphic below, Dunmore East recorded the highest average rental price at €934, €147 above the average rental price in Waterford. Portlaw recorded the lowest rental price of the settlements with an average rental price of €670, €117 below the average rental price in Waterford.

Average Rent by RTB Area



Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 3:
Commuting & Jobs Profile



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

External Commuter Flows, POWCAR 2016

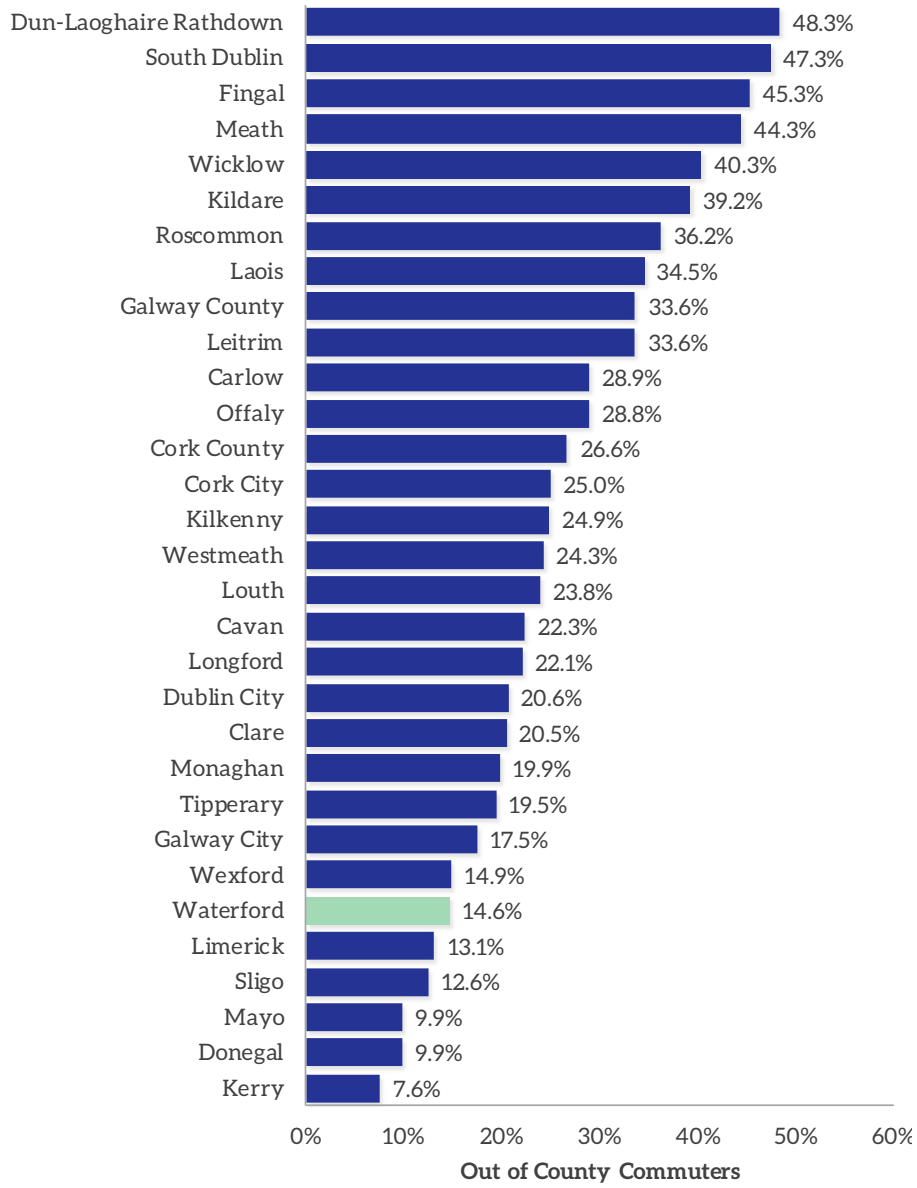


Figure 3.1: External Commuter Flows, POWSCAR 2016 (Source: CSO & AIRO)

14th Highest # in State

6th Lowest % in State

1 being the highest and 31 the lowest # or % of all local authorities

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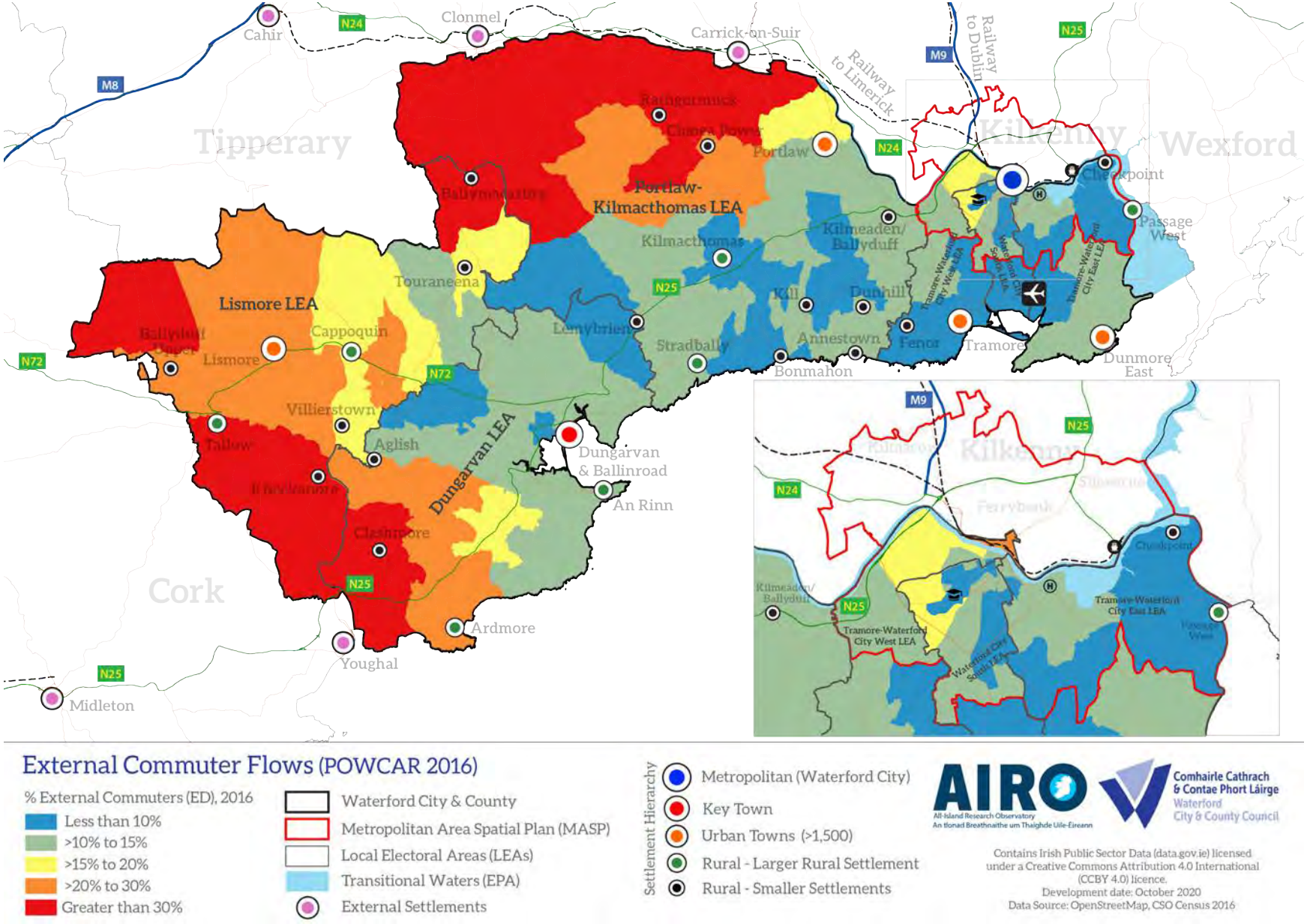
Waterford City & County Council

- This graph shows the extent of external commuting at local authority area level in Ireland. External commuting is defined here as the proportion of workers who commute to another local authority area / county. In 2016, a total of 6,564 (14.6%) Waterford resident workers commuted to employment positions outside the county. As the graph shows, the highest levels of external commuting are in the three local authority areas that adjoin Dublin City. These are followed by the other counties that form part of and adjoin the Greater Dublin Area (GDA), namely Meath, Wicklow and Kildare. Counties Roscommon and Leitrim record levels of external commuting that place them in the top-ten among local authority areas. However, their positioning is largely driven by towns that straddle county boundaries: Carrick-on-Shannon straddles the Leitrim-Roscommon border, while some of Athlone's environs extend into County Roscommon.
- As the graph shows, Waterford records the sixth-lowest value in the State reflecting a high number of internal trips and a low rate of people commuting out of the county for work. The map opposite details the external commuting flows across the county - highest rates (>30%) are primarily recorded in the north of the county in areas within the commuting catchment of employment opportunities in Clonmel and then in the west of the county in areas closely linked to employment opportunities in Cork. Relative to other counties, Waterford is well contained with the City acting as the key economic driver across the geographical areas of the county.

External Commuter Flows, POWCAR 2016



Map 3.1: External Commuter Flows, POWCAR 2016 (Source: CSO & AIRO)

Destination of External Commuters from Waterford, POWCAR 2016

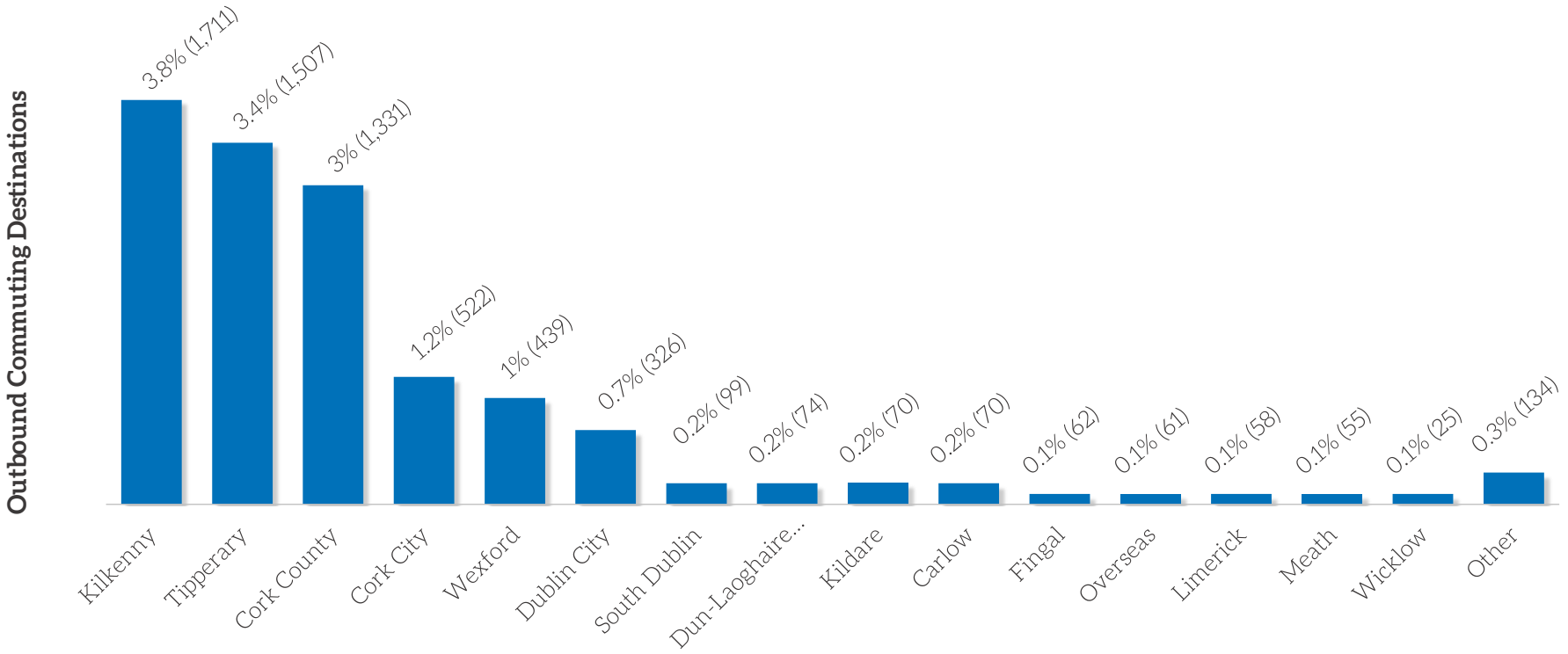
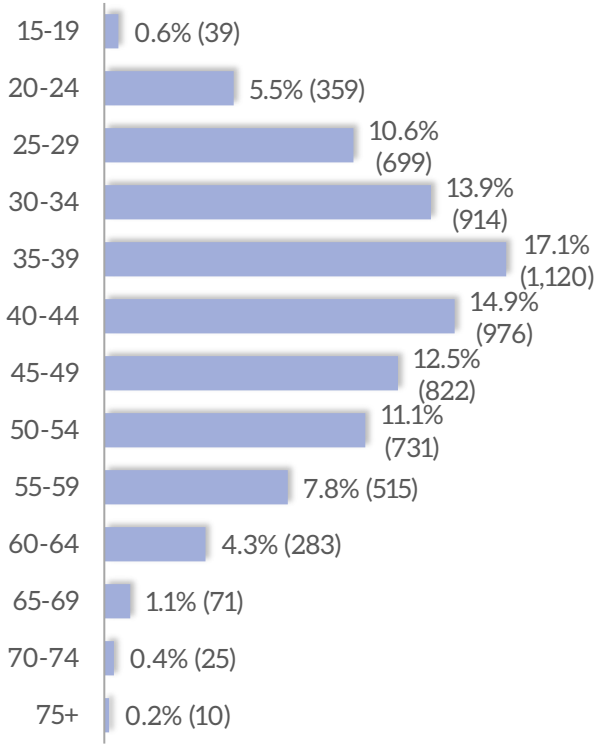


Figure 3.2: External Commuter Flows, POWSCAR 2016 (Source: CSO & AIRO)

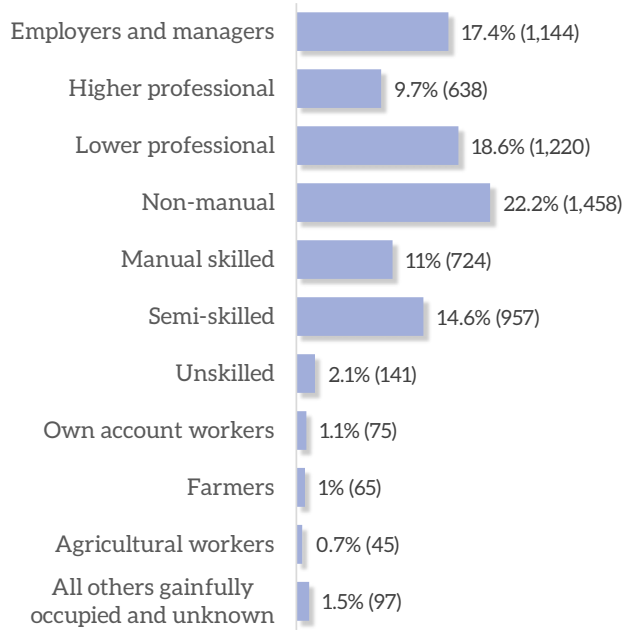
- There are almost 44,901 persons resident in Waterford who are at work. Of these, just over two thirds (67%) live and work in County Waterford. Of those who commute to destinations outside the county (6,564 or 14.6% of resident workers), the largest proportion goes to County Kilkenny (3.8% or 1,711), followed by Tipperary (3.4% or 1,507) and Cork County (3% or 1,331). Flows to other counties are all below 1.2%.
- As the following graphs show, 56.5% of out of county commuters are aged 25 to 45 years, and a similar proportion (61.7%) has a third-level qualification. Out of county commuters have a higher level of educational attainment than do those who work in Waterford (51.6%). Despite the growth in rail travel, enhanced connections to Dublin and the environmental imperatives associated with smart travel, only a very small proportion of county commuters use public transport. Two categories, namely 'manufacturing industries' and 'education, human health and social work', account for nearly half of external commuters' industries of employment. External commuters are also more represented in the upper social classes (Employers and Managers), than are those who work in County Waterford.

External Commuter Flows, POWCAR 2016

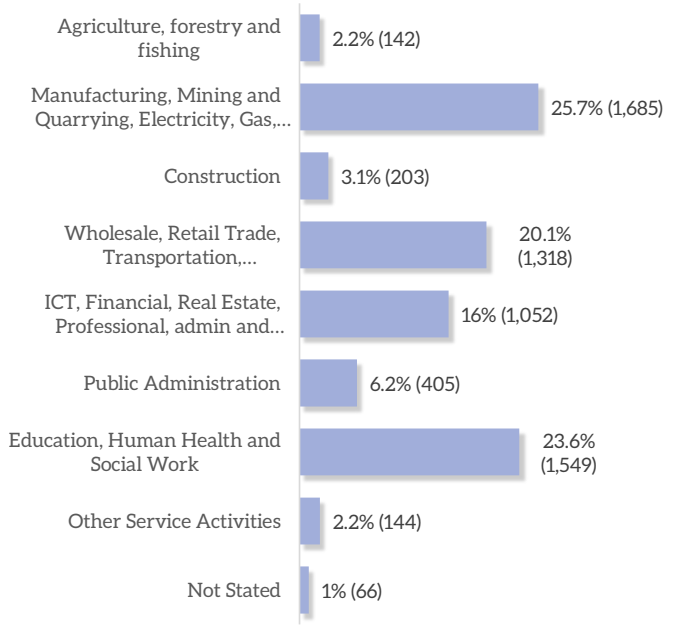
Population by Age



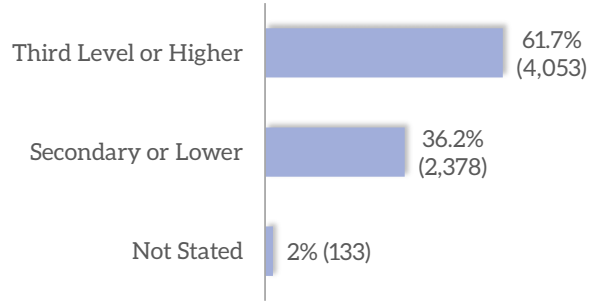
Socio Economic Group (SEG)



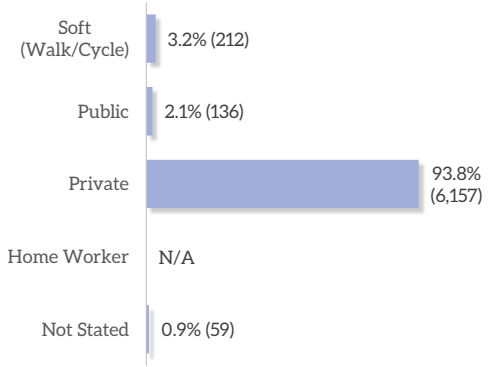
Industry of Employment



Education Attainment



Mode of Transport



Origin of Internal Commuters to Waterford, POWCAR 2016

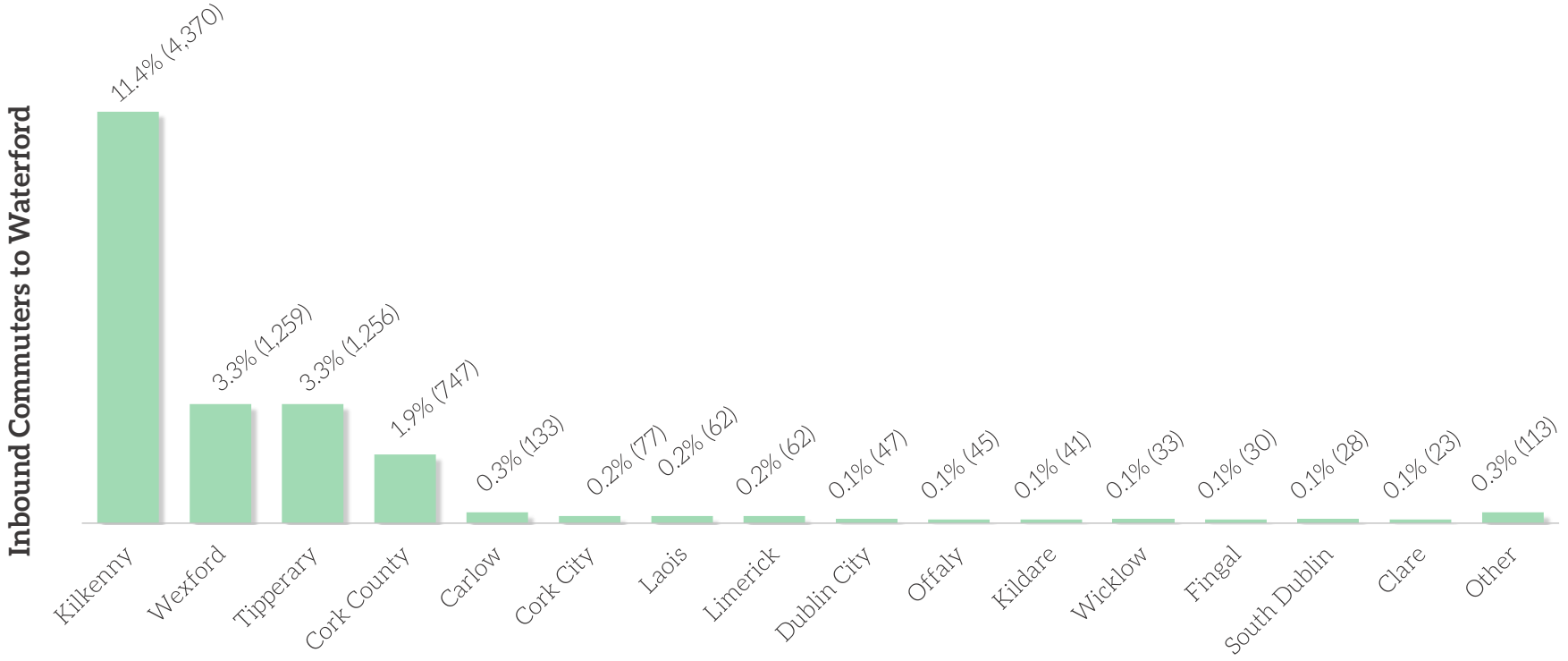
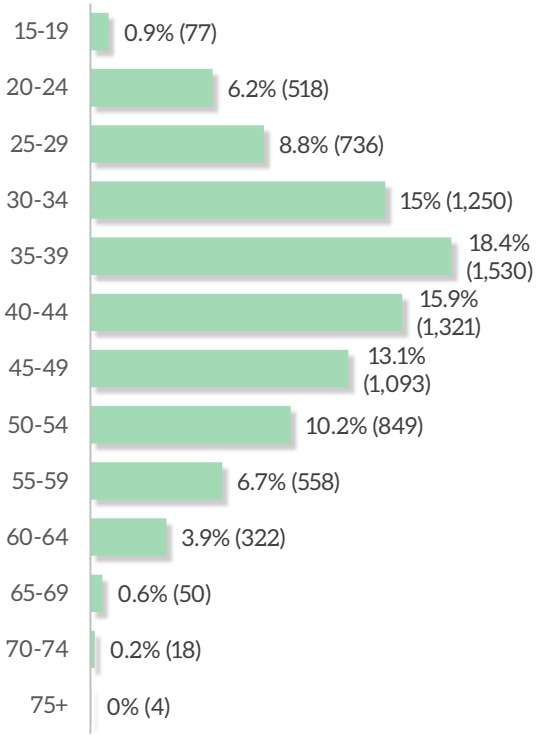


Figure 3.3: External Commuter Flows, POWSCAR 2016 (Source: CSO & AIRO)

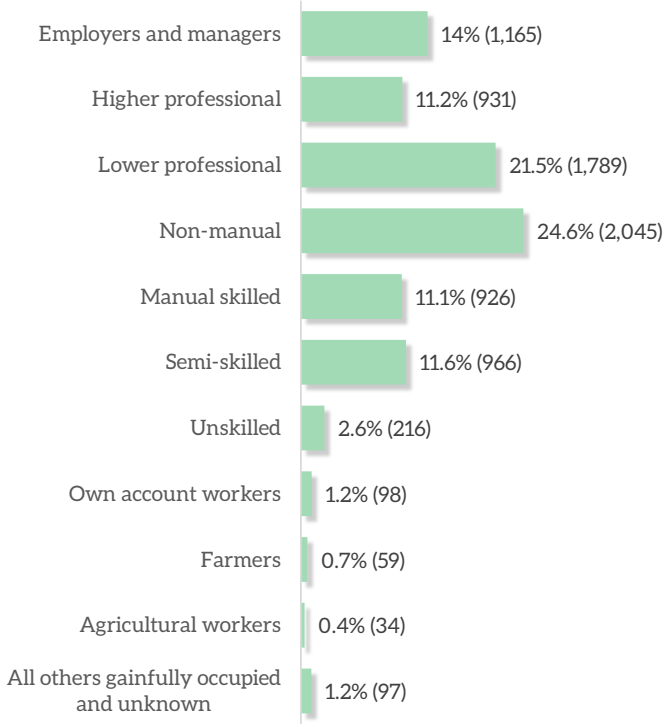
- There are almost 44,901 persons resident in Waterford who are at work. Of these, just over two thirds (67%) live and work in County Waterford, a total of 6,564 or 14.6% commute out of the county and an additional 8,240 or 18.4% are classed as Blank or Mobile workers. In addition to this, a total of 8,326 workers commute into the county on a daily basis. As such, the total number of jobs located in Waterford is 38,423. Of this total, the largest proportion of workers that commute into the county are from County Kilkenny (11.4% or 4,370), followed by Wexford (3.3% or 1,259), Tipperary (3.3% or 1,256) and Cork County (1.9% or 747). Flows from all other counties are below 0.3%.
- As the following graphs show, 58.1% of in-bound commuters are aged 25 to 45 years, and a similar proportion (60.5%) has a third-level qualification. In-bound commuters have a higher level of educational attainment than do those who work in Waterford (51.6%). Again, Private Mode of transport is main means of travel to work and accounts for 95.8% of all in-bound commuters. The 'education, human health and social work' (27.4%), followed by 'manufacturing industries' (22.9%) and 'ICT, financial, real estate etc.' (15.7%). In-bound commuters are also more represented in the upper social classes (Employers and Managers, Professional - 45.7%), than are those who work in County Waterford.

External Commuter Flows, POWCAR 2016

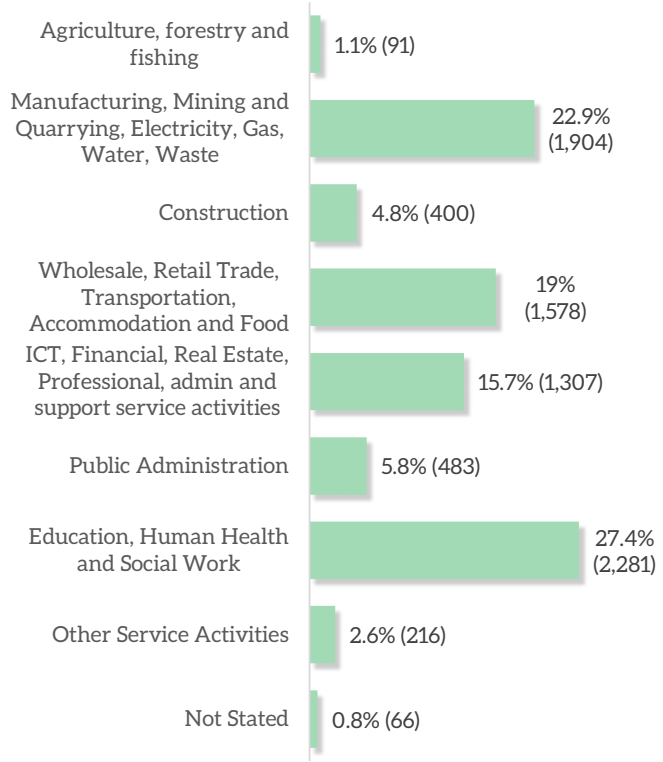
Population by Age



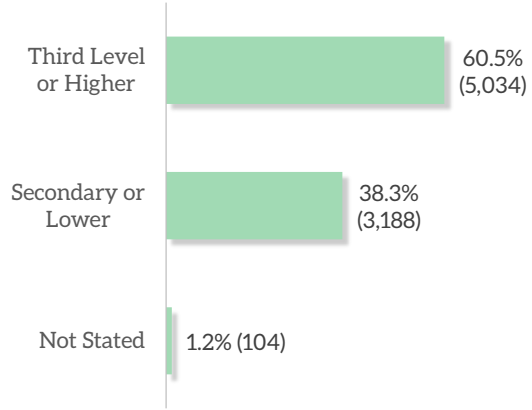
Socio Economic Group (SEG)



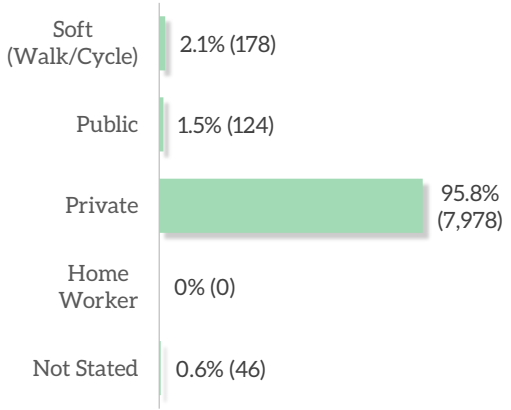
Industry of Employment



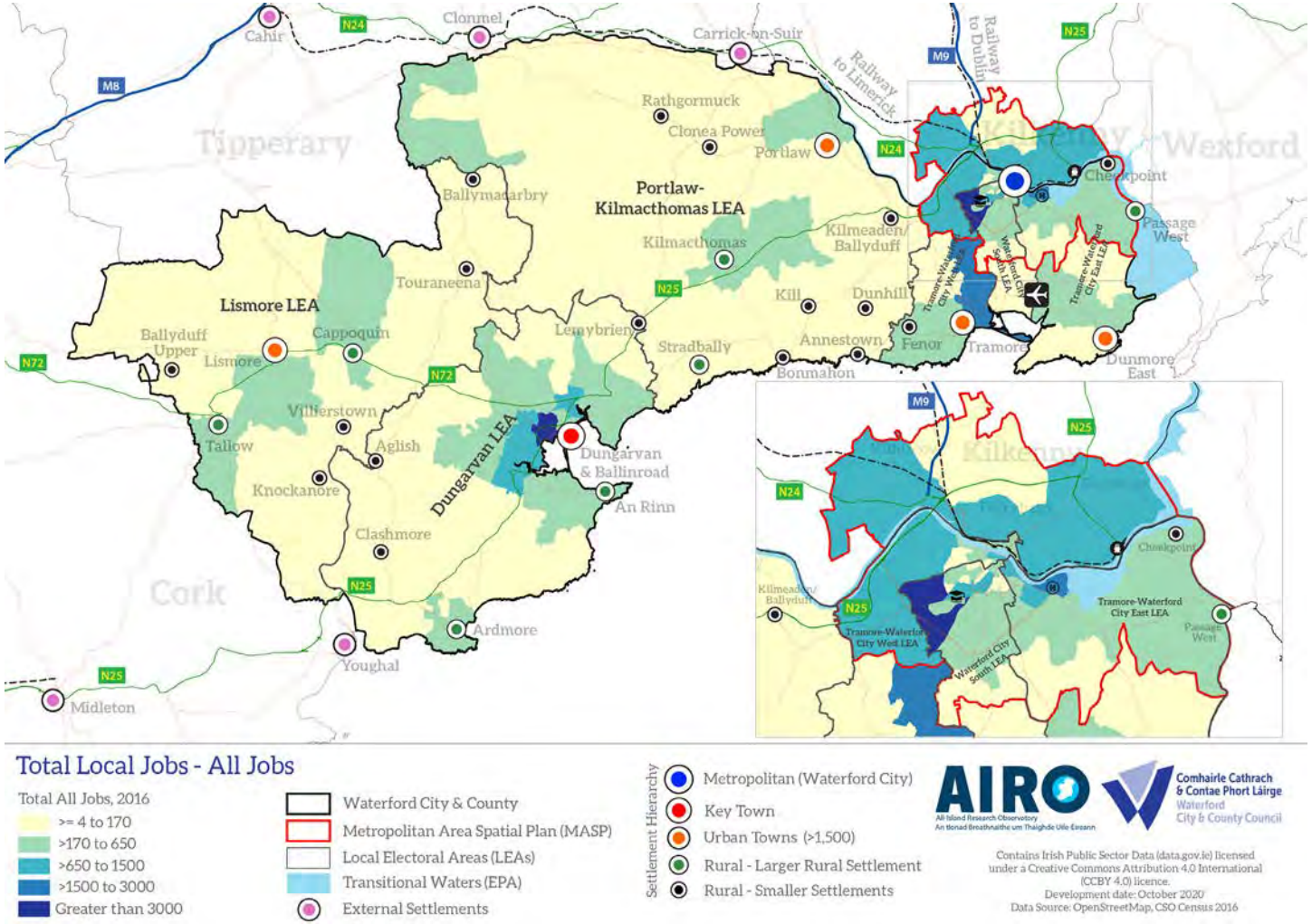
Education Attainment



Mode of Transport



Location of Jobs in Waterford, POWCAR 2016

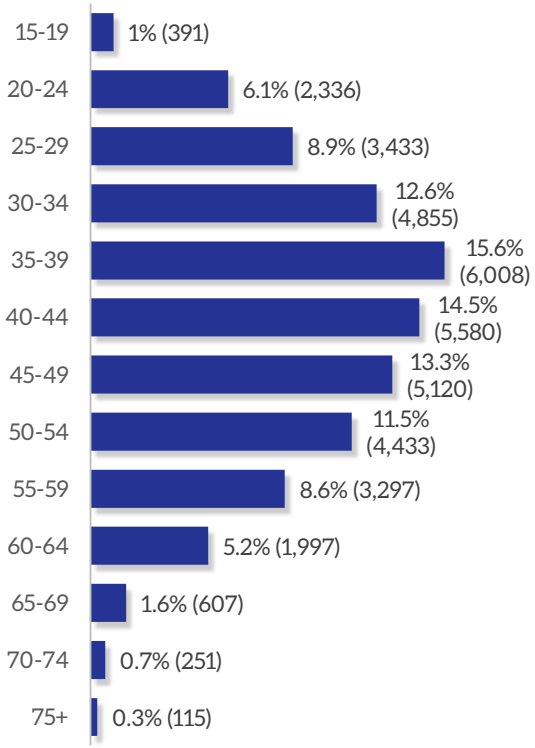


Map 3.2: Location of Jobs, POWCAR 2016 (Source: CSO & AIRO)

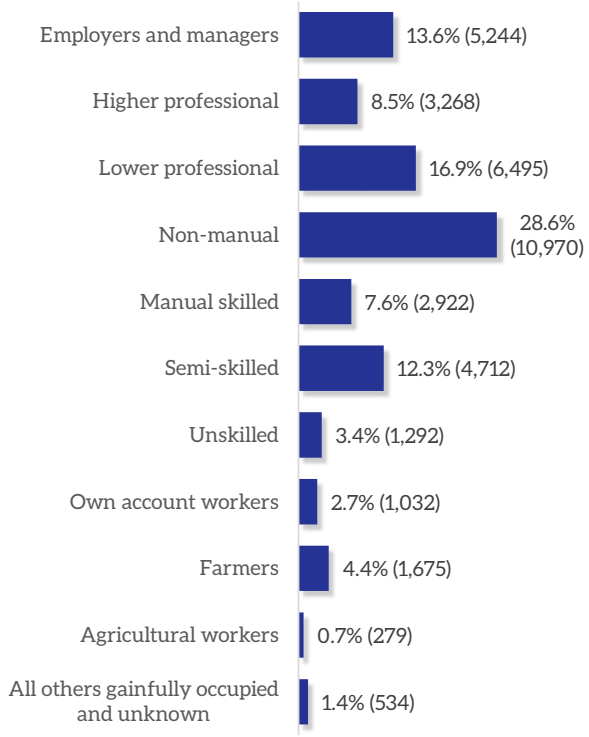
- The map details the number of local jobs within the Waterford Electoral Divisions (EDs). In total, there are 38,423 jobs located within Waterford County (based on location of job via POWCAR, 2016). The map shows the significance of the MASP area, Waterford City and indeed Dungarvan as the main employment centres in Waterford.
- The graphics on the following page provide an overview of the local Jobs Profile across Waterford - age, education, industry of employment, socio-economic group, industry of employment and mode of transport. The profiles on the following pages then provide a Jobs Profile for the key settlements across Waterford.

Local Jobs Profile, POWCAR 2016

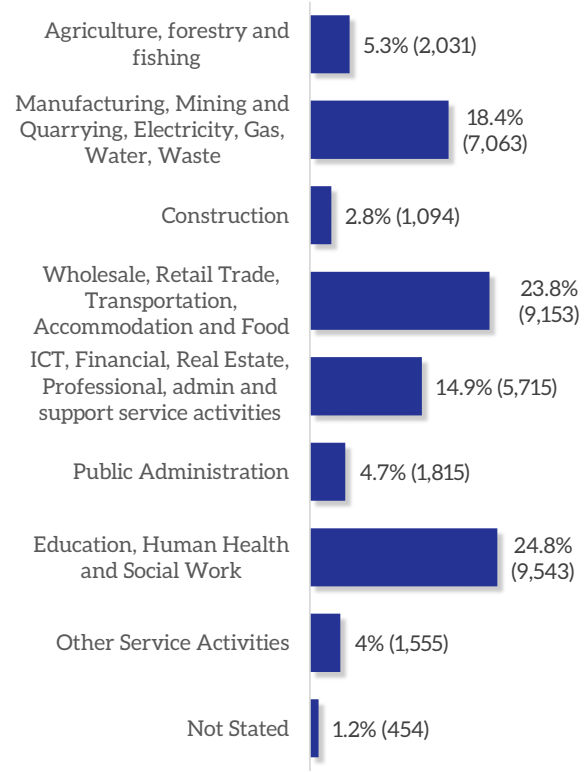
Population by Age



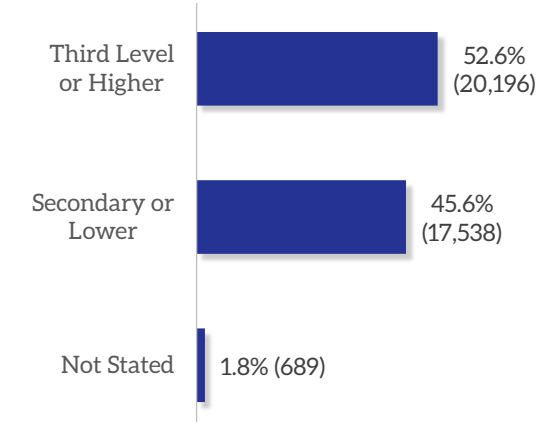
Socio Economic Group (SEG)



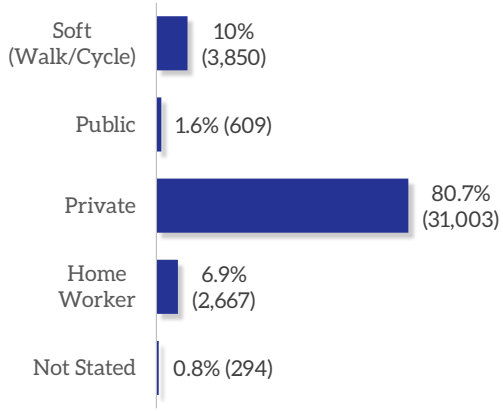
Industry of Employment



Education Attainment



Mode of Transport

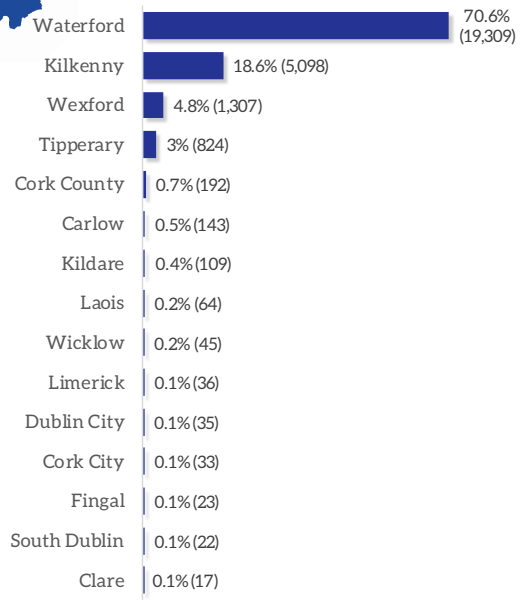


Waterford City and Suburbs - Jobs Profile, 2016

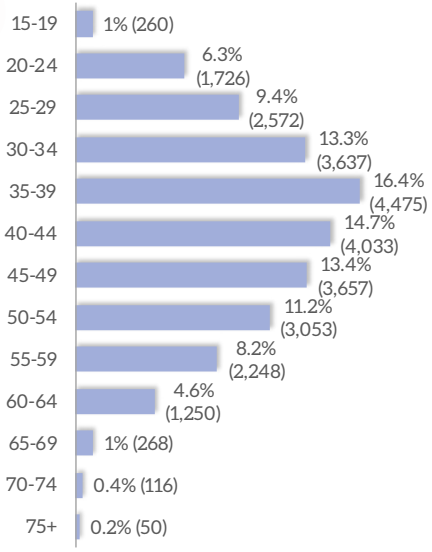
Jobs located in the Settlement | Total Jobs: 27,345 | % of Waterford Jobs: 71.5%

Inbound Commuting Flows

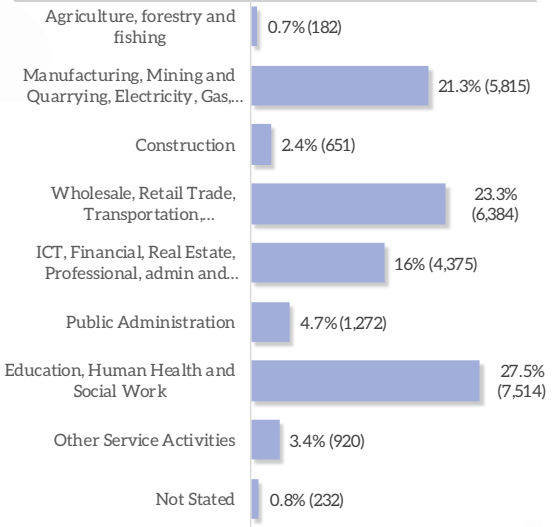
(Where do Waterford City workers come from?)



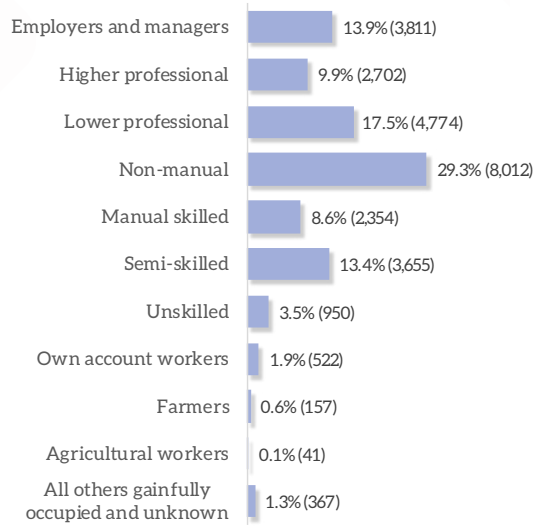
Age Profile



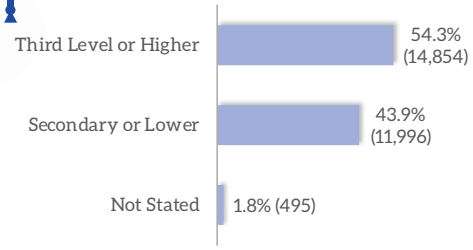
Industry of Employment



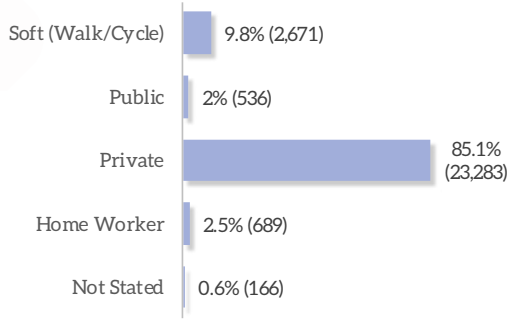
Socio-Economic Group



Education Attainment



Mode of Travel

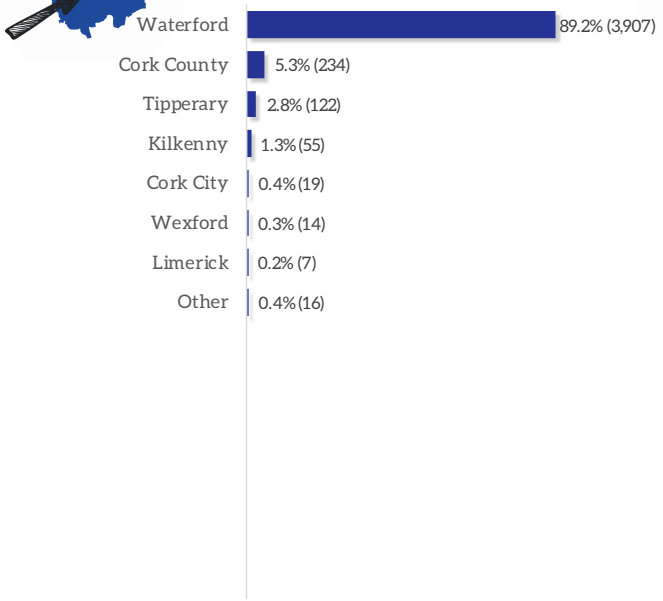


Dungarvan - Jobs Profile, 2016

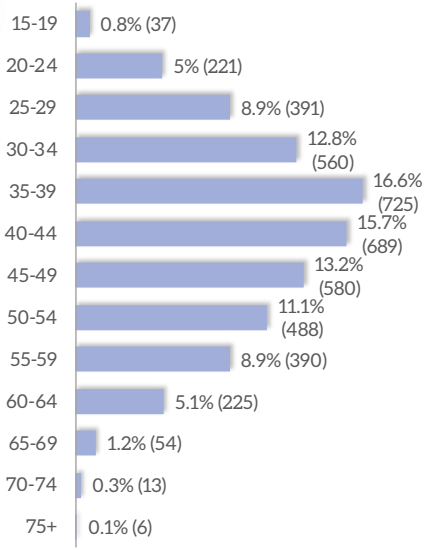
Jobs located in the Settlement | Total Jobs: 4,379 | % of Waterford Jobs: 11.5%

Inbound Commuting Flows

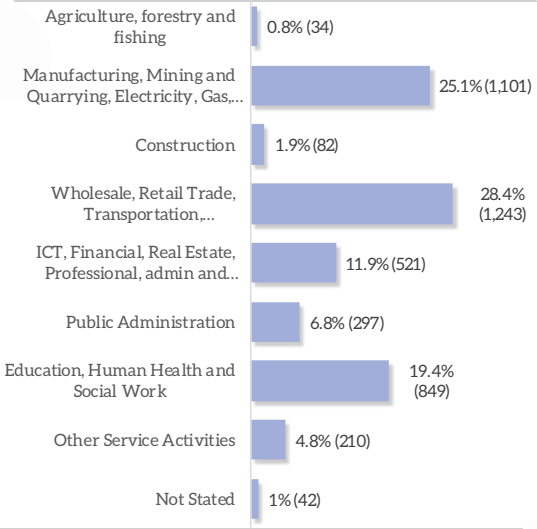
(Where do Dungarvan workers come from?)



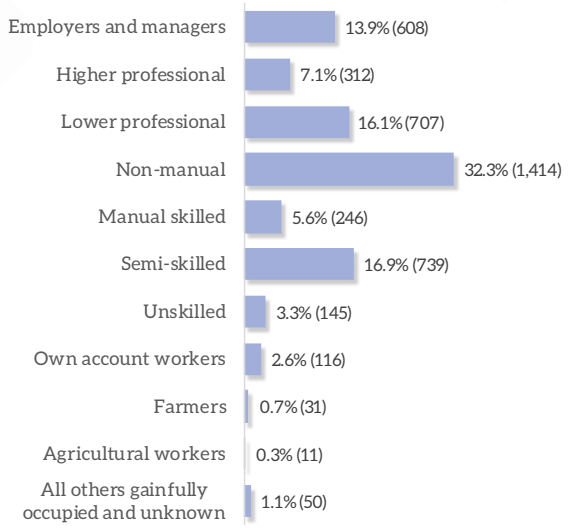
Age Profile



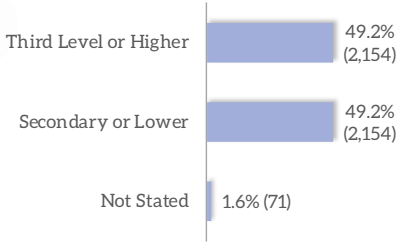
Industry of Employment



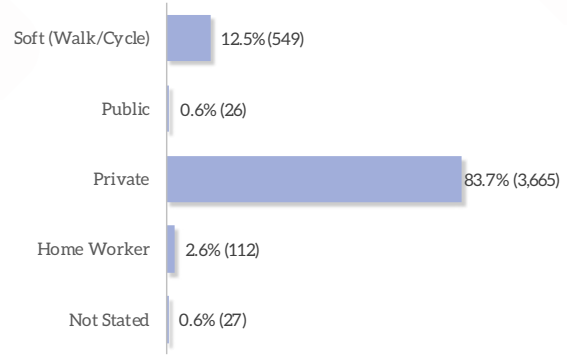
Socio-Economic Group



Education Attainment



Mode of Travel

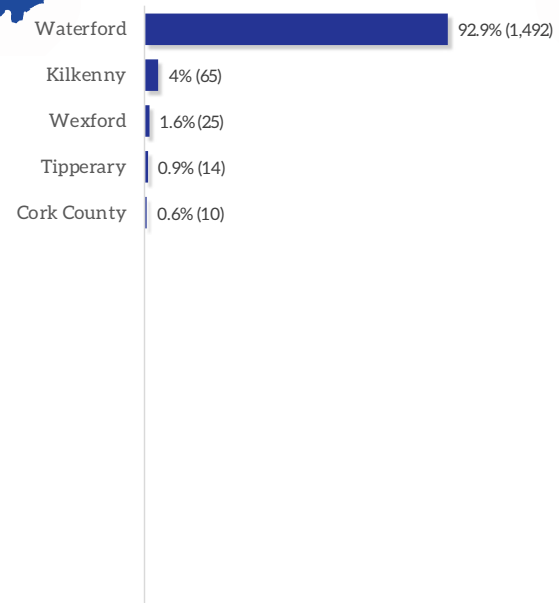


Tramore - Jobs Profile, 2016

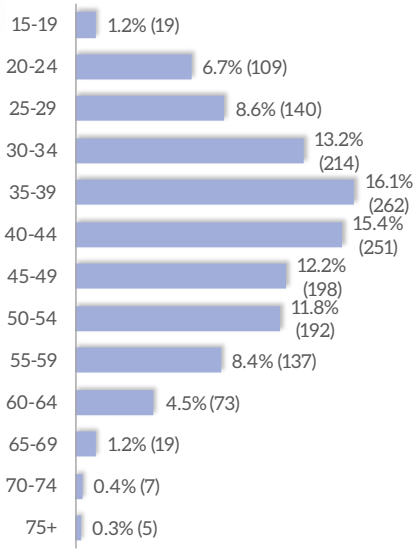
Jobs located in the Settlement | Total Jobs: 1,626 | % of Waterford Jobs: 4.3%

Inbound Commuting Flows

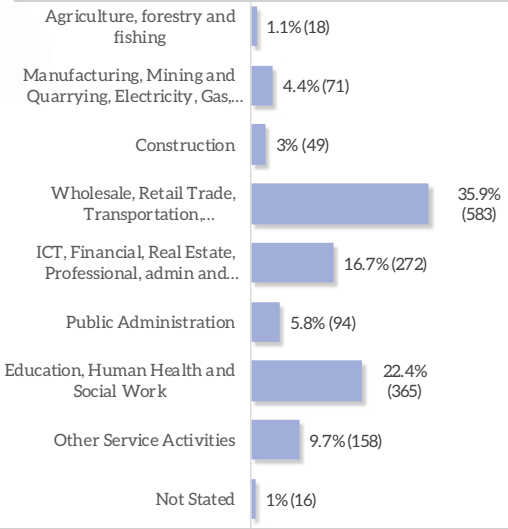
(Where do Tramore workers come from?)



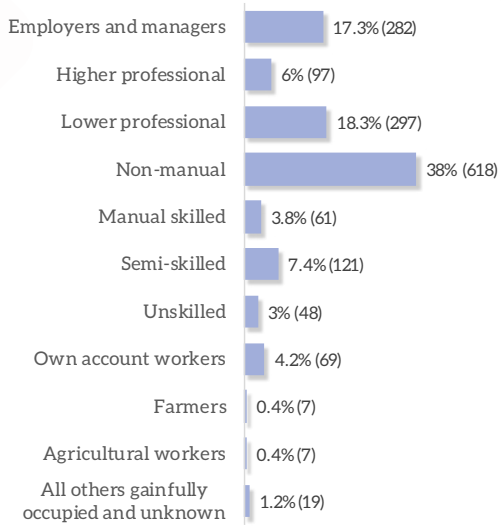
Age Profile



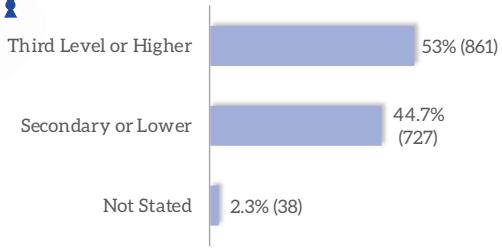
Industry of Employment



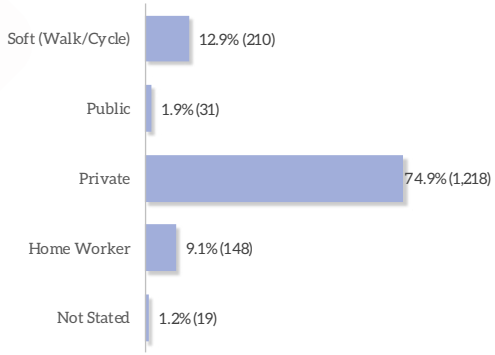
Socio-Economic Group



Education Attainment



Mode of Travel

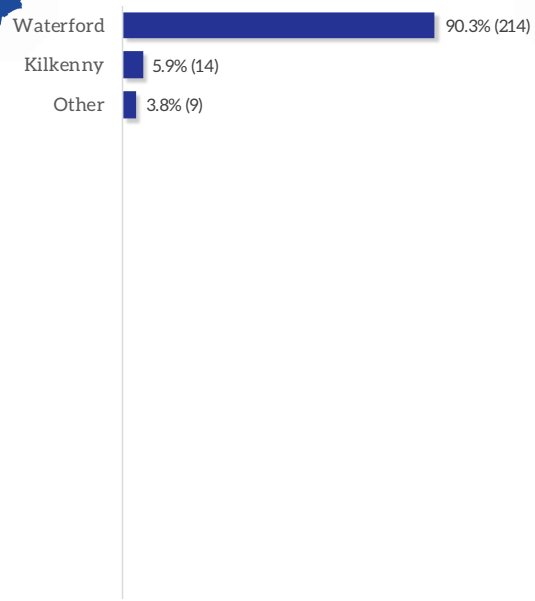


Dunmore East - Jobs Profile, 2016

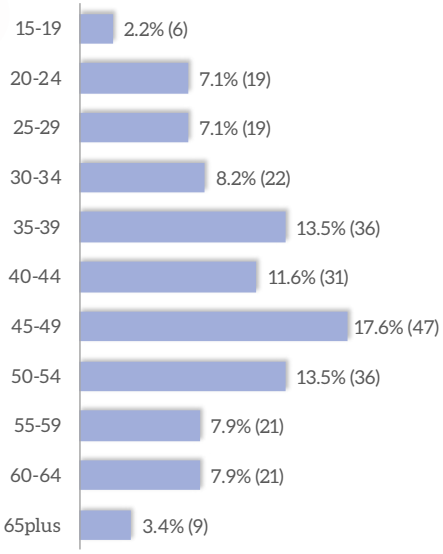
Jobs located in the Settlement | Total Jobs: 267 | % of Waterford Jobs: 0.7%

Inbound Commuting Flows

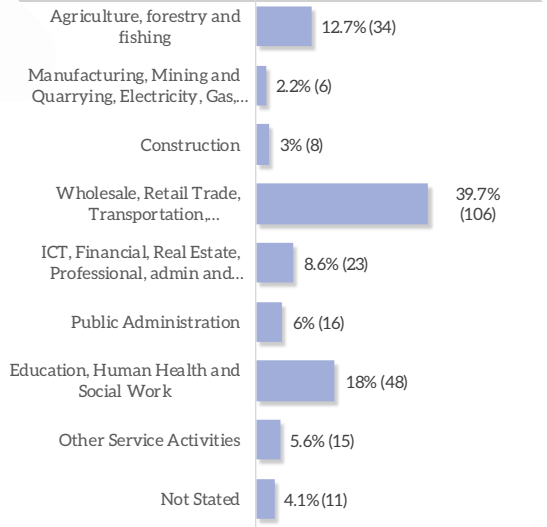
(Where do Dunmore East workers come from?)



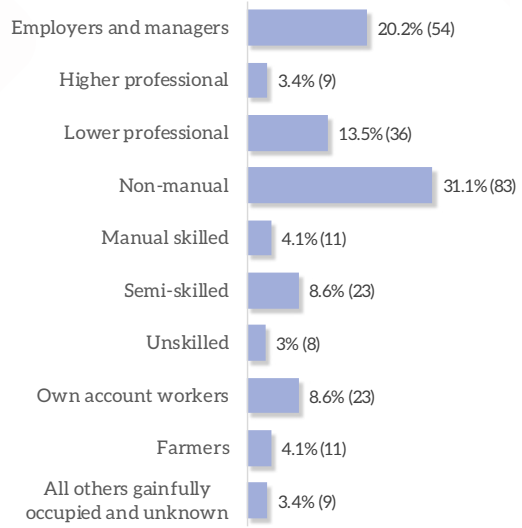
Age Profile



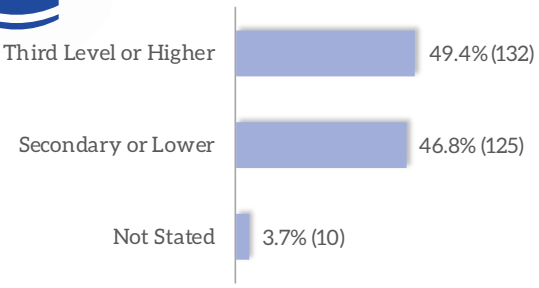
Industry of Employment



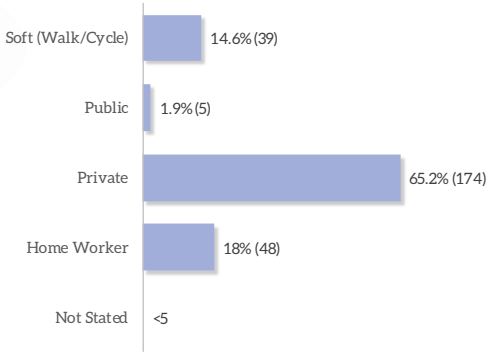
Socio-Economic Group



Education Attainment



Mode of Travel

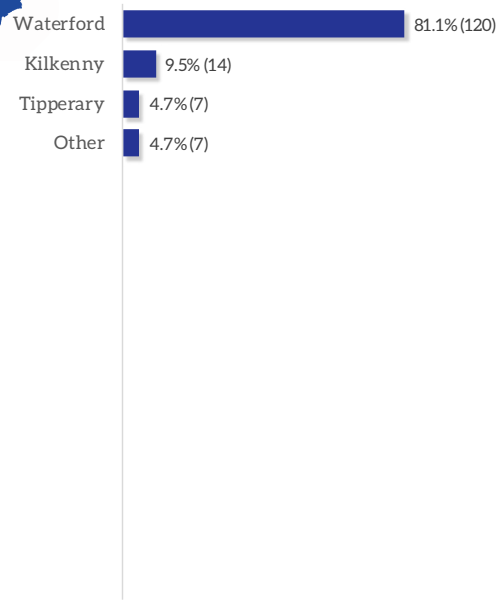


Portlaw - Jobs Profile, 2016

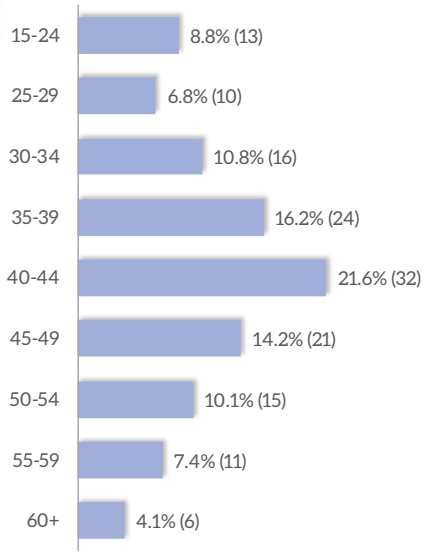
Jobs located in the Settlement | Total Jobs: 148 | % of Waterford Jobs: 0.4%

Inbound Commuting Flows

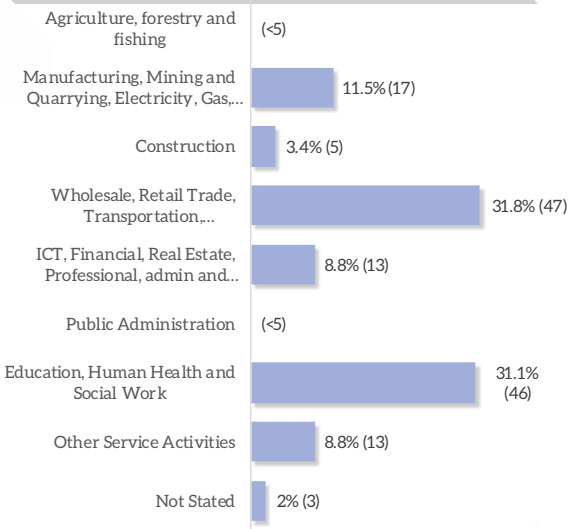
(Where do Portlaw workers come from?)



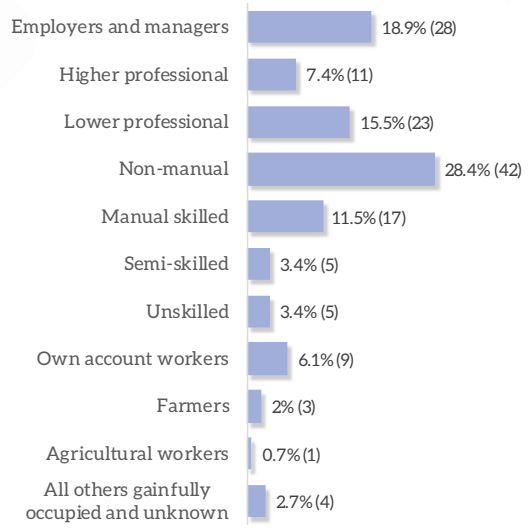
Age Profile



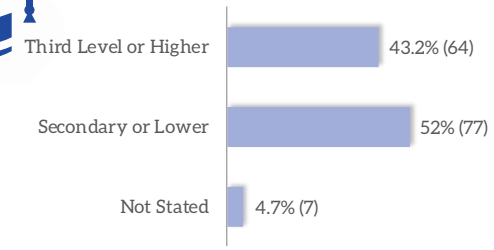
Industry of Employment



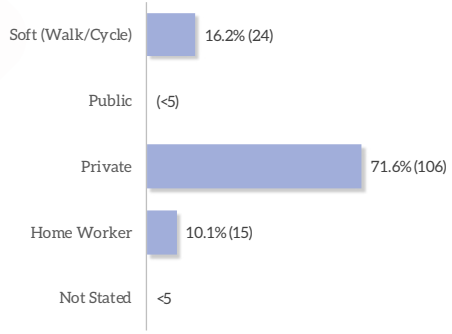
Socio-Economic Group



Education Attainment



Mode of Travel

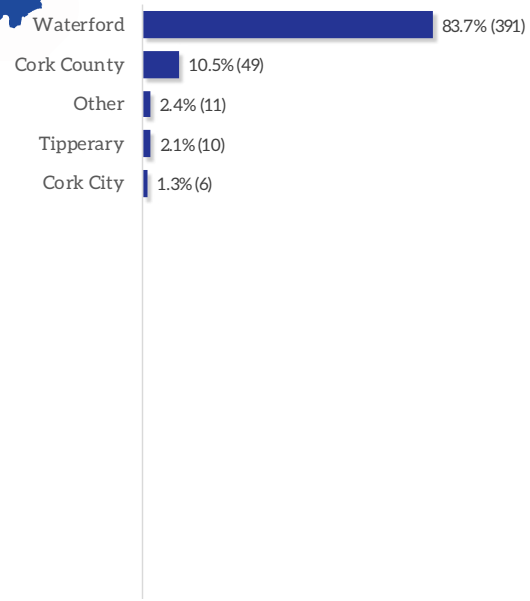


Lismore - Jobs Profile, 2016

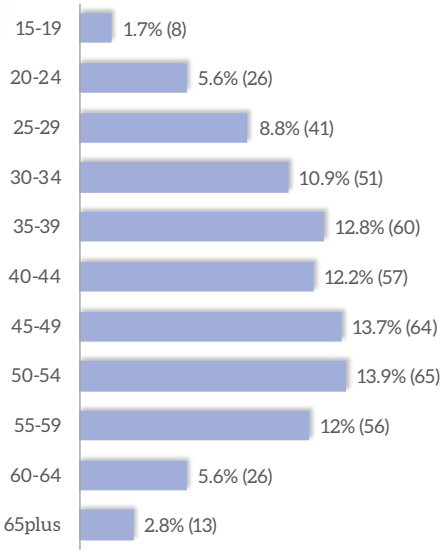
Jobs located in the Settlement | Total Jobs: 467 | % of Waterford Jobs: 1.2%

Inbound Commuting Flows

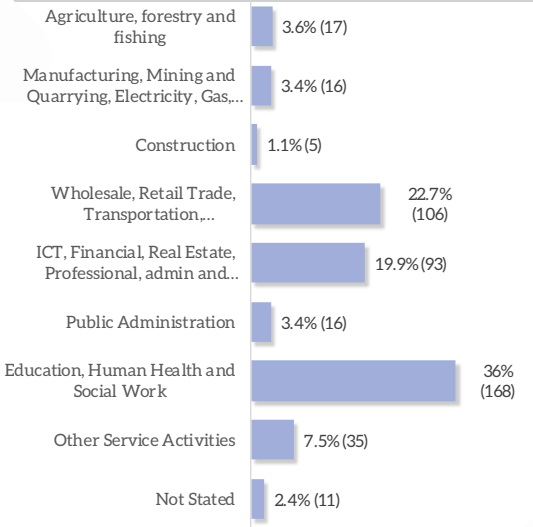
(Where do Lismore workers come from?)



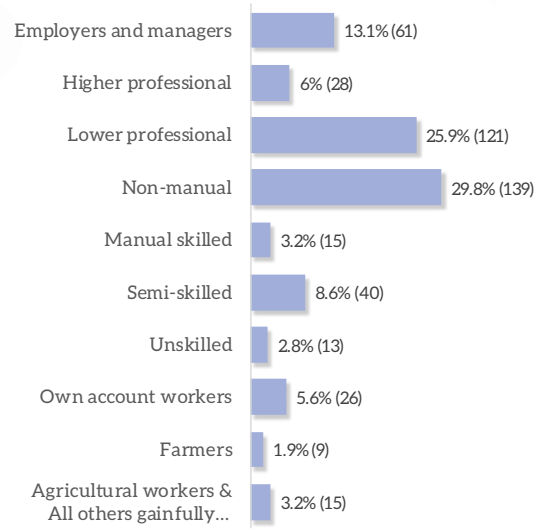
Age Profile



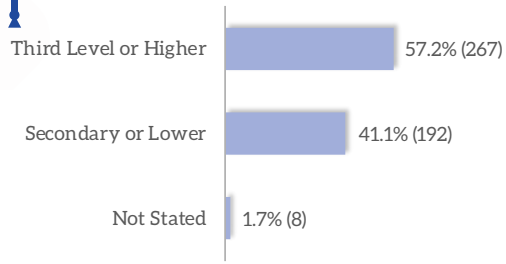
Industry of Employment



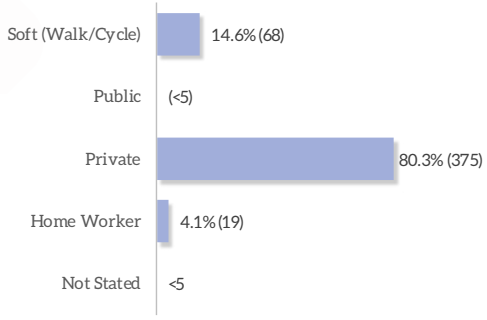
Socio-Economic Group



Education Attainment



Mode of Travel

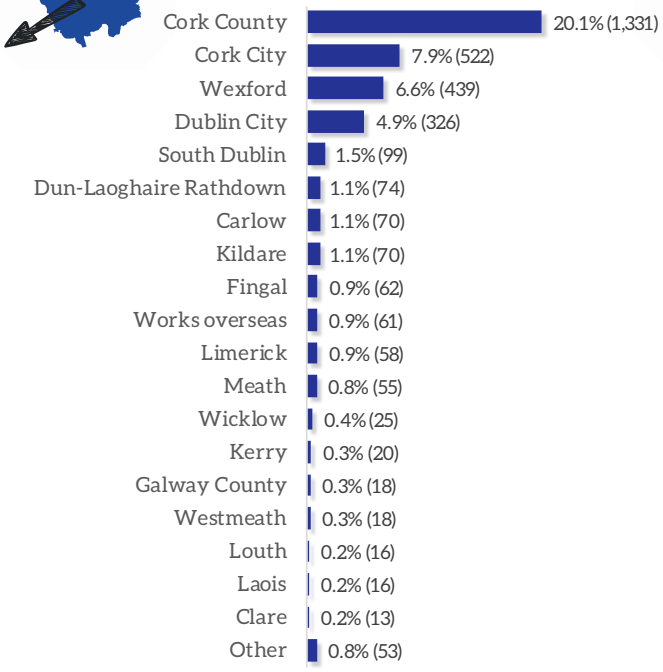


Out of County (external) - Jobs Profile, 2016

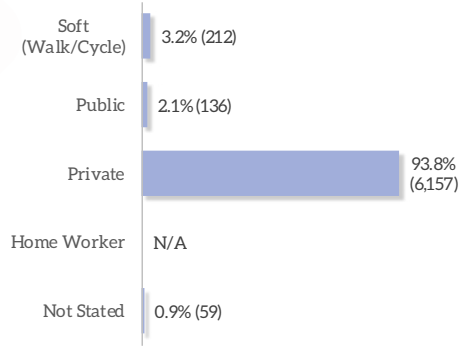
Out of County Jobs | Total Jobs: 27,345 | % of Waterford Jobs: 71.5%

Outbound Commuting Flows

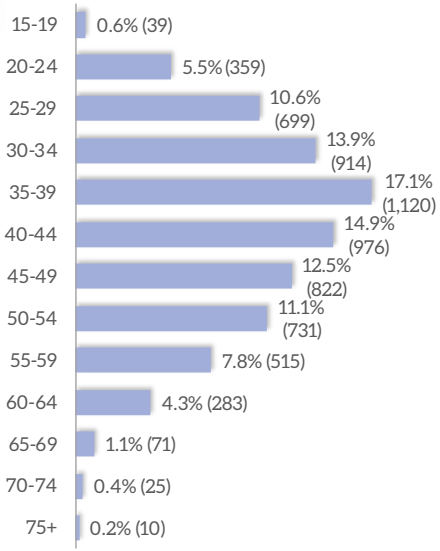
(Where do out of county workers travel to?)



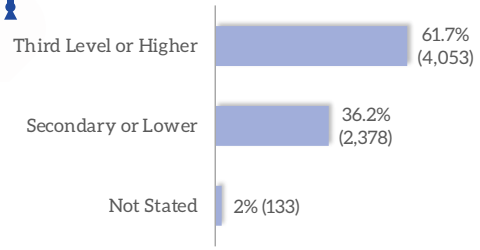
Mode of Travel



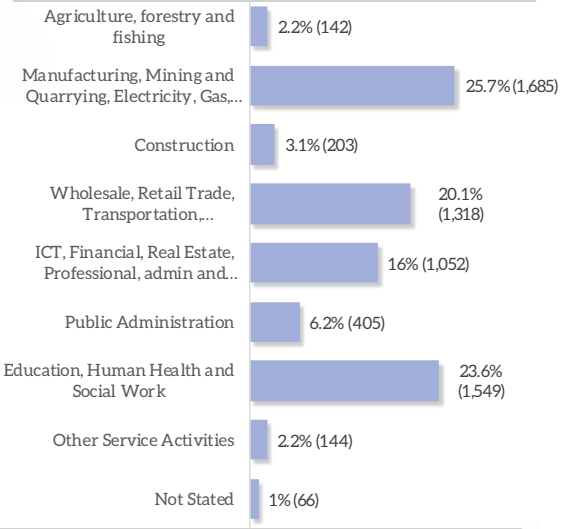
Age Profile



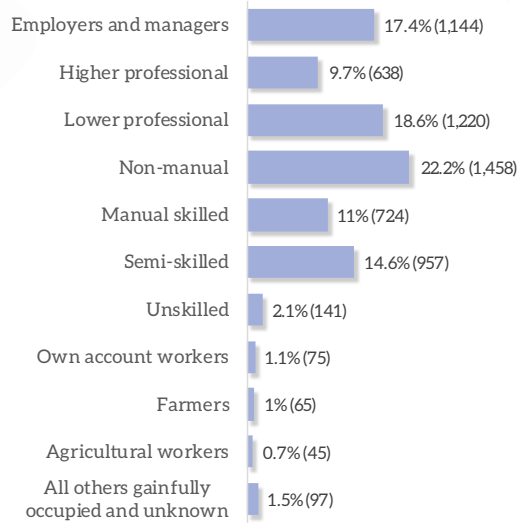
Education Attainment



Industry of Employment



Socio-Economic Group



Local Jobs: % Jobs Agriculture, Forestry and Fishing, 2016

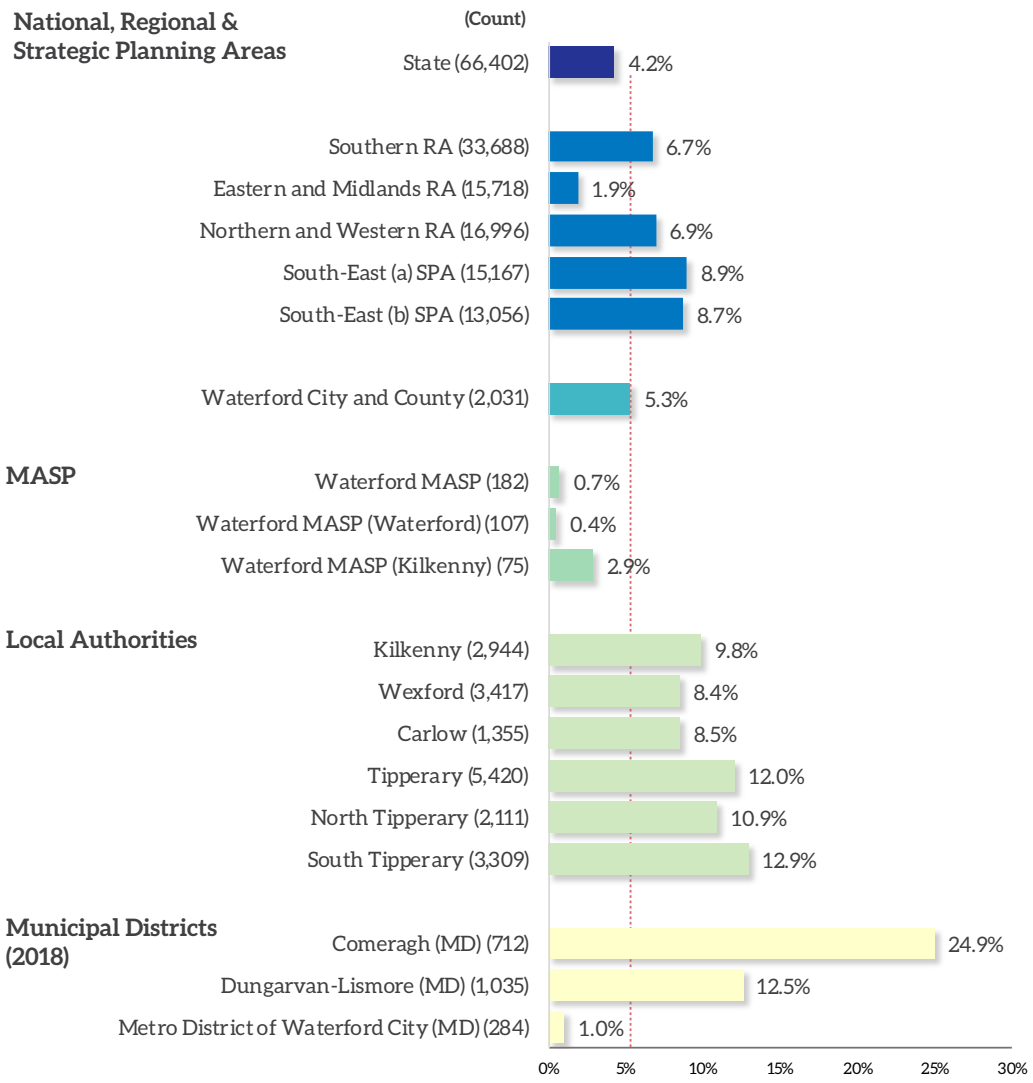


Figure 3.4: Local Jobs - % Agriculture, Forestry & Fishing, 2016 (Source: CSO)

15th Highest # in State

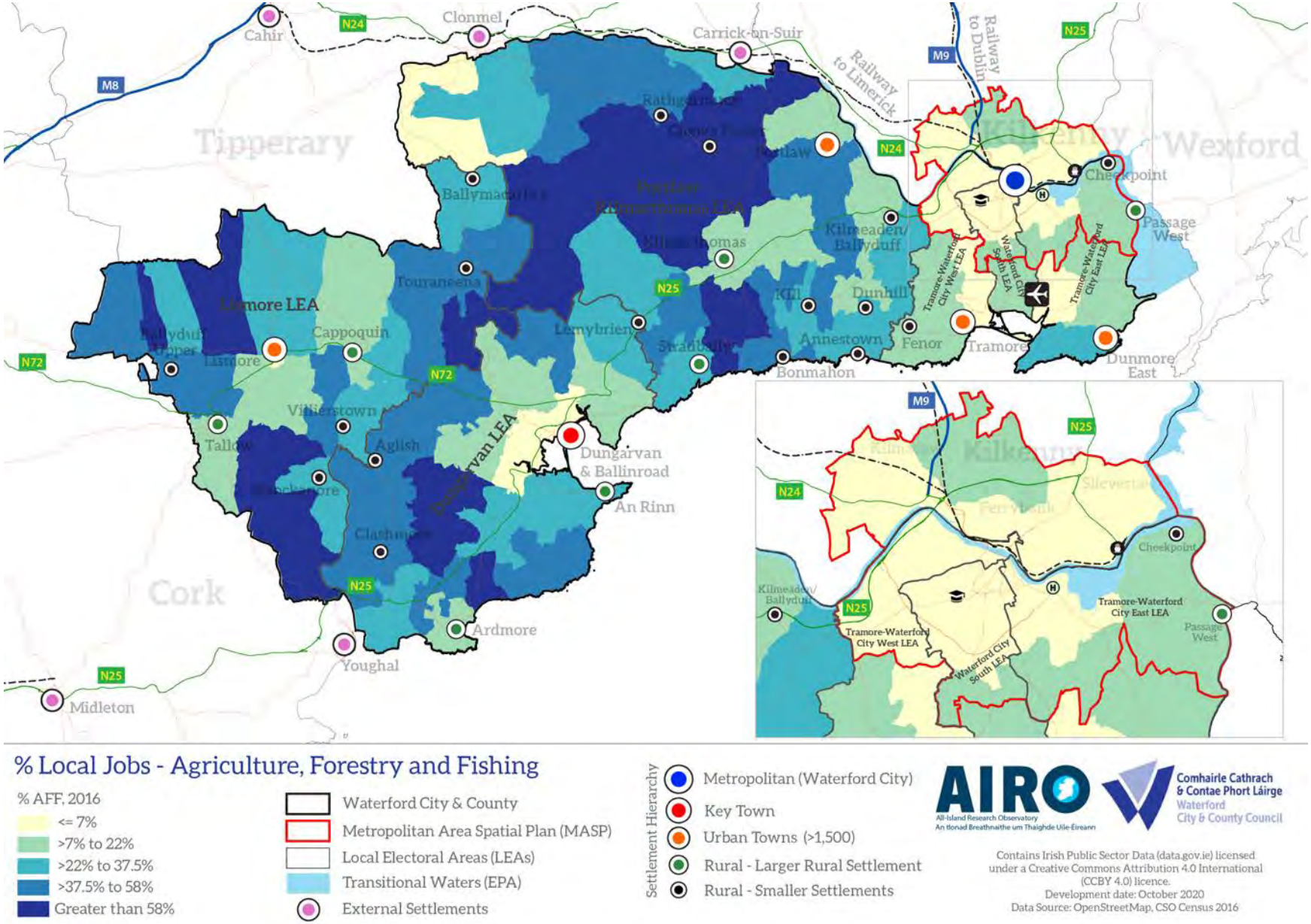
21st Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

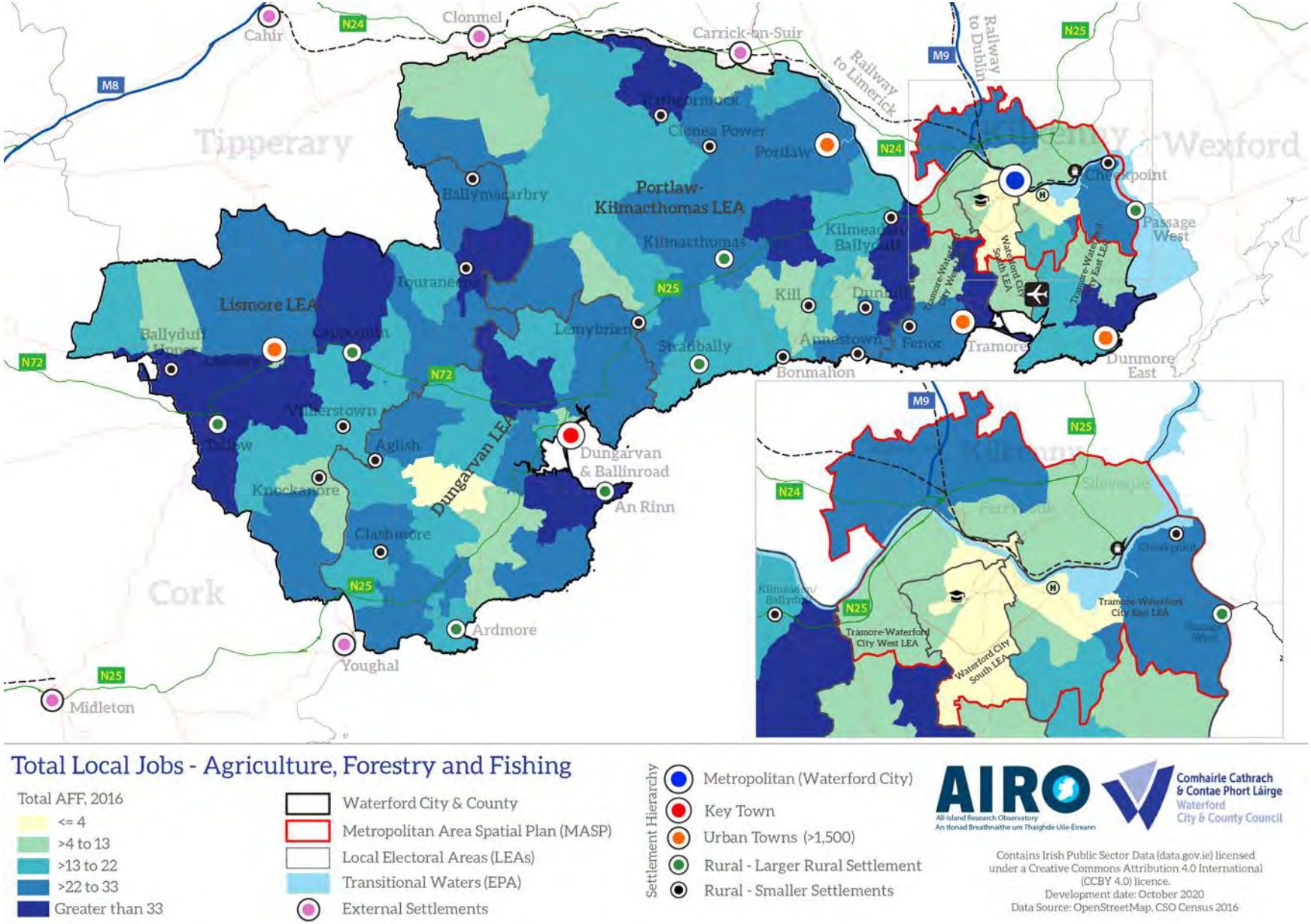
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the Agriculture, Forestry and Fishing (AFF) category is 2,031 and accounts for 5.3% of all jobs in the county. This rate is higher than the State (4.2%) average but considerably lower than the regional averages (SRA 6.7% and South-East (a) SPA 8.9%). Waterford accounts for 3% of all AFF jobs in the State, 6% of the SRA and 13.4% of the South-East (a) region.
- The proportion of AFF jobs located within the Waterford MASP area is low and accounts for 0.7% of the 27,345 jobs in this area.
  At Municipal District level there is a very uneven distribution. The rural Comeragh MD has a rate of 24.9% - well in excess of any other part of the county. In contrast the Metropolitan District of Waterford City has a rate of just 1%.
- The maps on the following pages outline the distribution of AFF Jobs in Waterford. Map 3.3 presents the percentage share of AFF jobs in each Electoral Divisions while Map 3.4 presents the actual number of jobs.

Local Jobs: % Jobs Agriculture, Forestry and Fishing, 2016



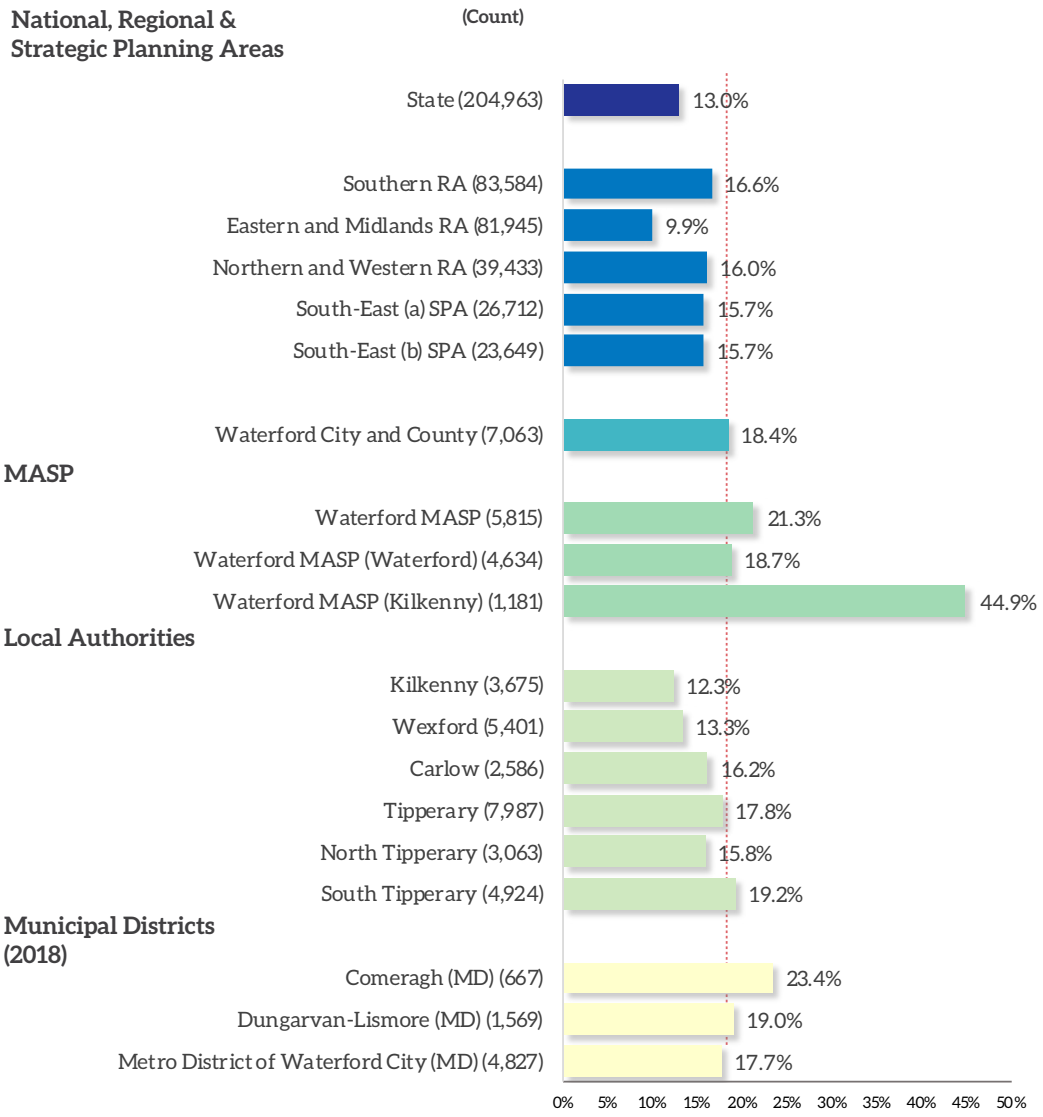
Map 3.3: Local Jobs - % Agriculture, Forestry & Fishing, 2016 (Source: CSO)

Local Jobs: Total Jobs Agriculture, Forestry and Fishing, 2016



Map 3.4: Local Jobs - Total Jobs Agriculture, Forestry & Fishing, 2016 (Source: CSO)

Local Jobs: % Jobs Manufacturing Industries, 2016



11th Highest # in State

8th Highest % in State

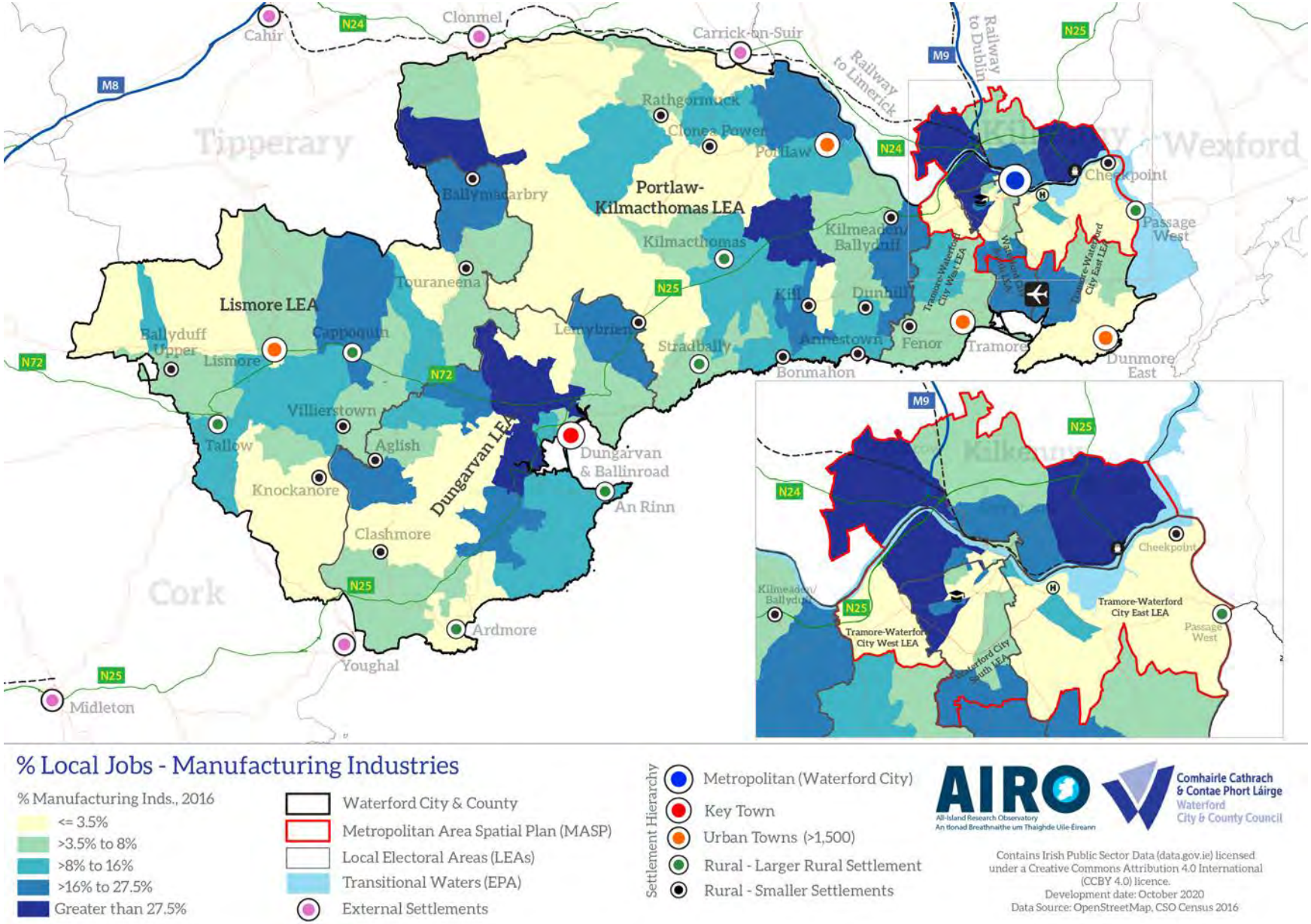
1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the Manufacturing Industries category is 7,063 and accounts for 18.4% of all jobs in the county. This rate is higher than the State (13%) average but considerably lower than the regional averages (SRA 16.6% and South-East (a) SPA 15.7%). Waterford accounts for 3.4% of all Manufacturing Industry jobs in the State, 8.5% of the SRA and 30% of the South-East (a) region.
- The proportion of Manufacturing Industry jobs located within the Waterford MASP area accounts for 21.3% of the 27,345 jobs in this area. Manufacturing jobs plays a major role in the economic base in the Kilkenny part of the MASP and accounts for 44.9% of all jobs. At Municipal District level there is an uneven distribution. The rural Comeragh MD has a rate of 23.4% - higher then other parts of the county. Metropolitan District of Waterford City (MD) recorded the lowest proportion at 17.7%.
- The maps on the following pages outline the distribution of Manufacturing Industry jobs in Waterford. Map 3.5 presents the percentage share of Manufacturing Industry jobs in each Electoral Divisions while Map 3.6 presents the actual number of jobs.

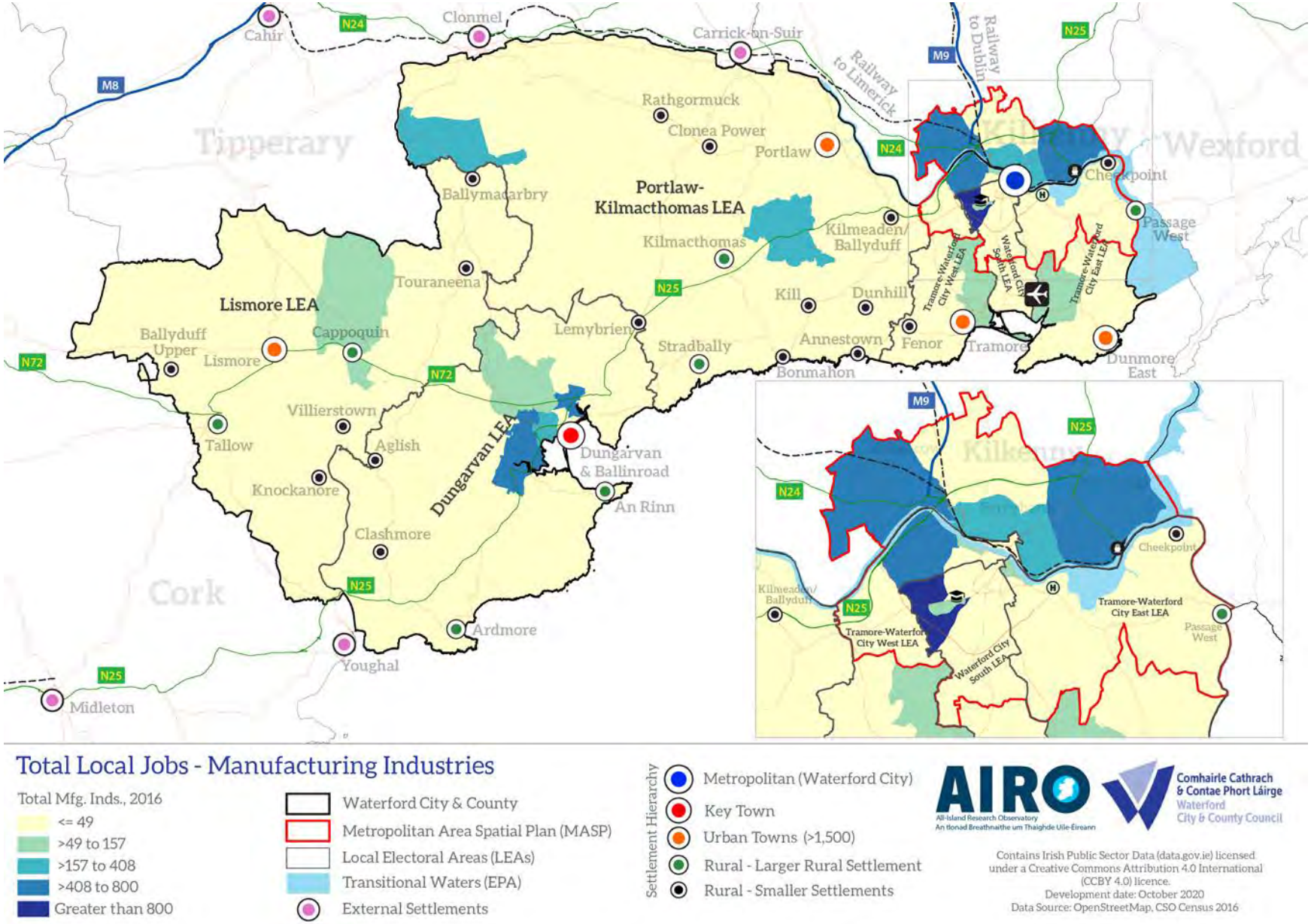
Figure 3.5: Local Jobs: % Jobs Manufacturing Industries, 2016 (Source: CSO)

Local Jobs: % Jobs Manufacturing Industries, 2016



Map 3.5: Local Jobs - % Jobs Manufacturing Industries, 2016 (Source: CSO)

Local Jobs: Total Jobs Manufacturing Industries, 2016



Map 3.6: Local Jobs - Total Jobs Manufacturing Industries, 2016 (Source: CSO)

Local Jobs: % Jobs Construction, 2016

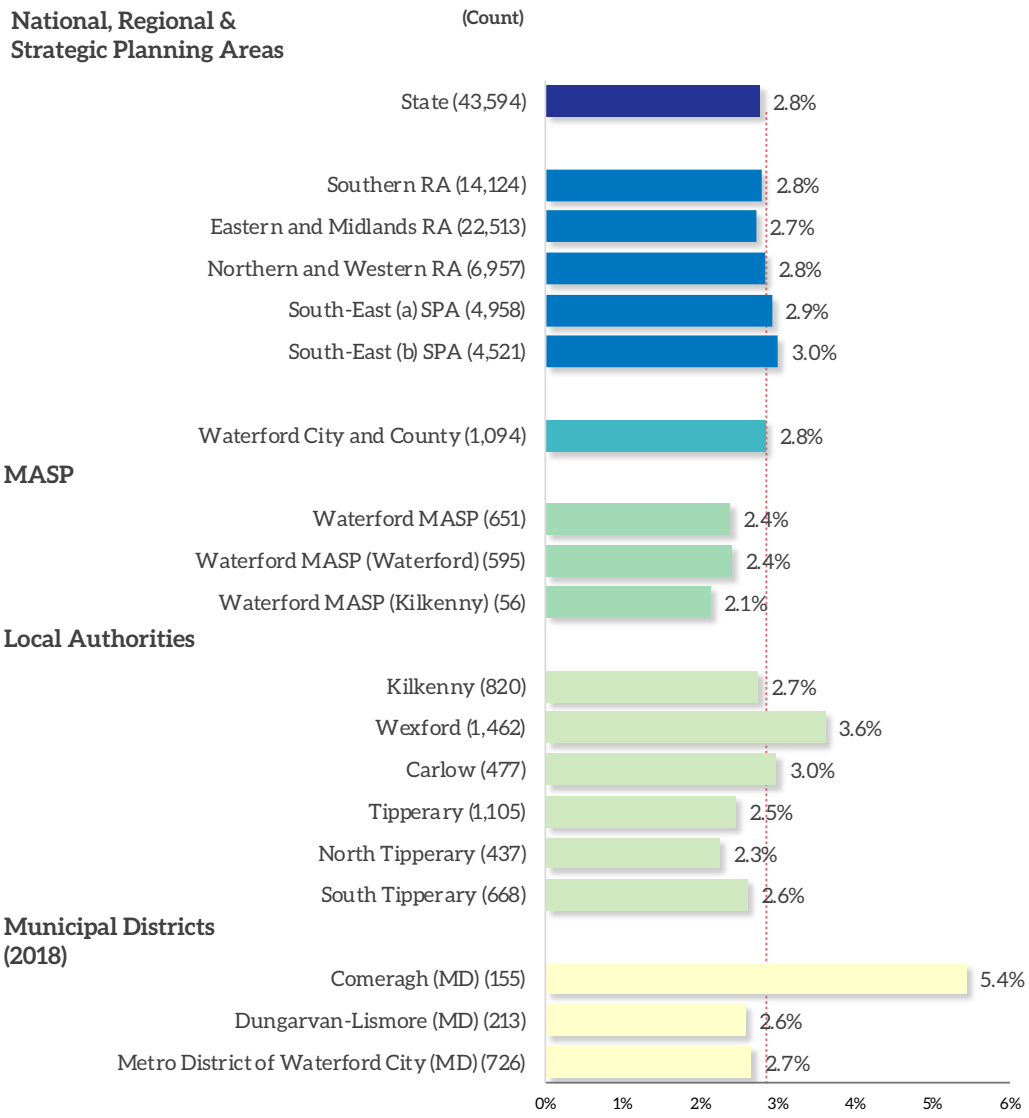


Figure 3.6: Local Jobs - % Jobs Construction, 2016 (Source: CSO)

13th Highest # in State

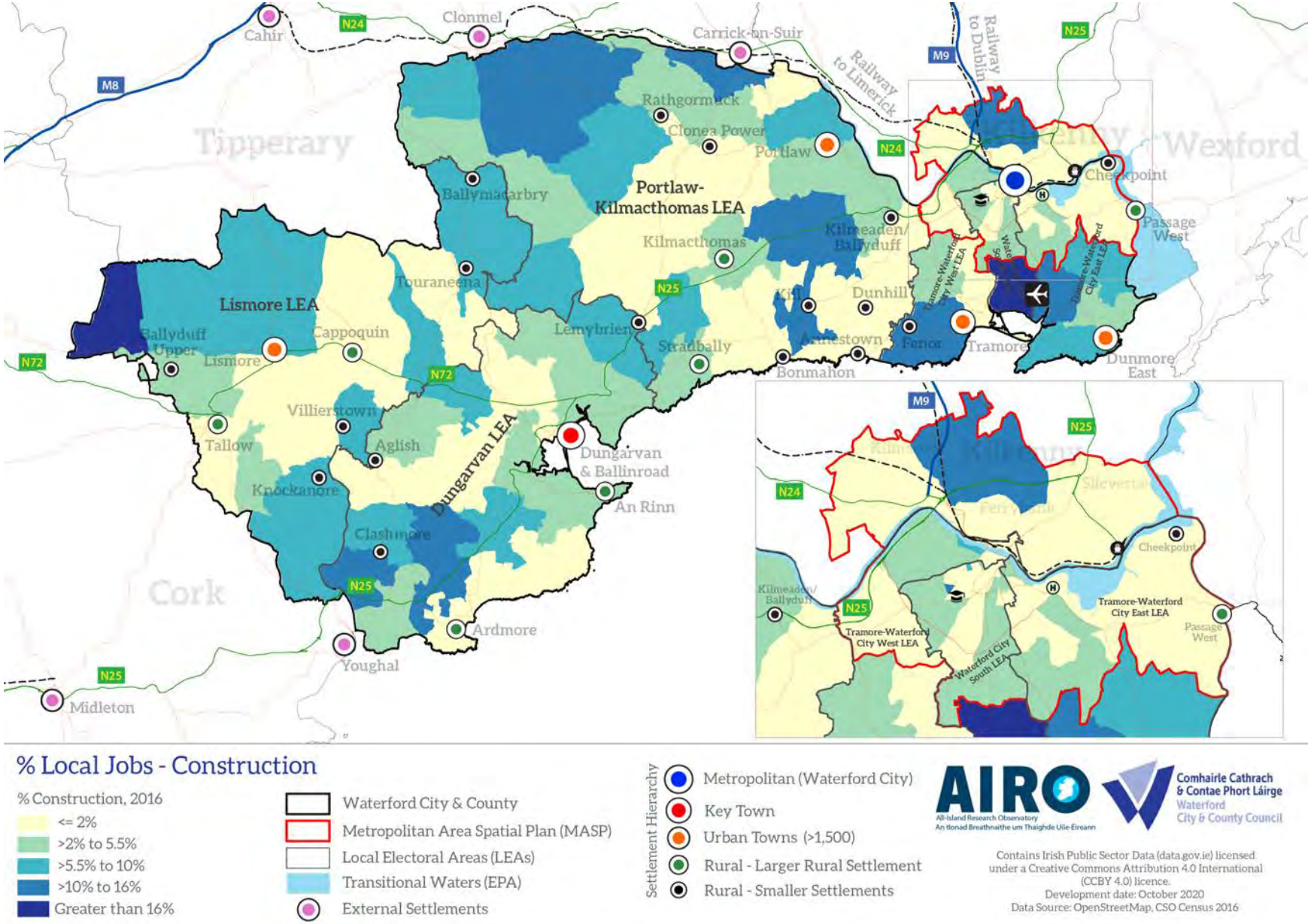
17th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

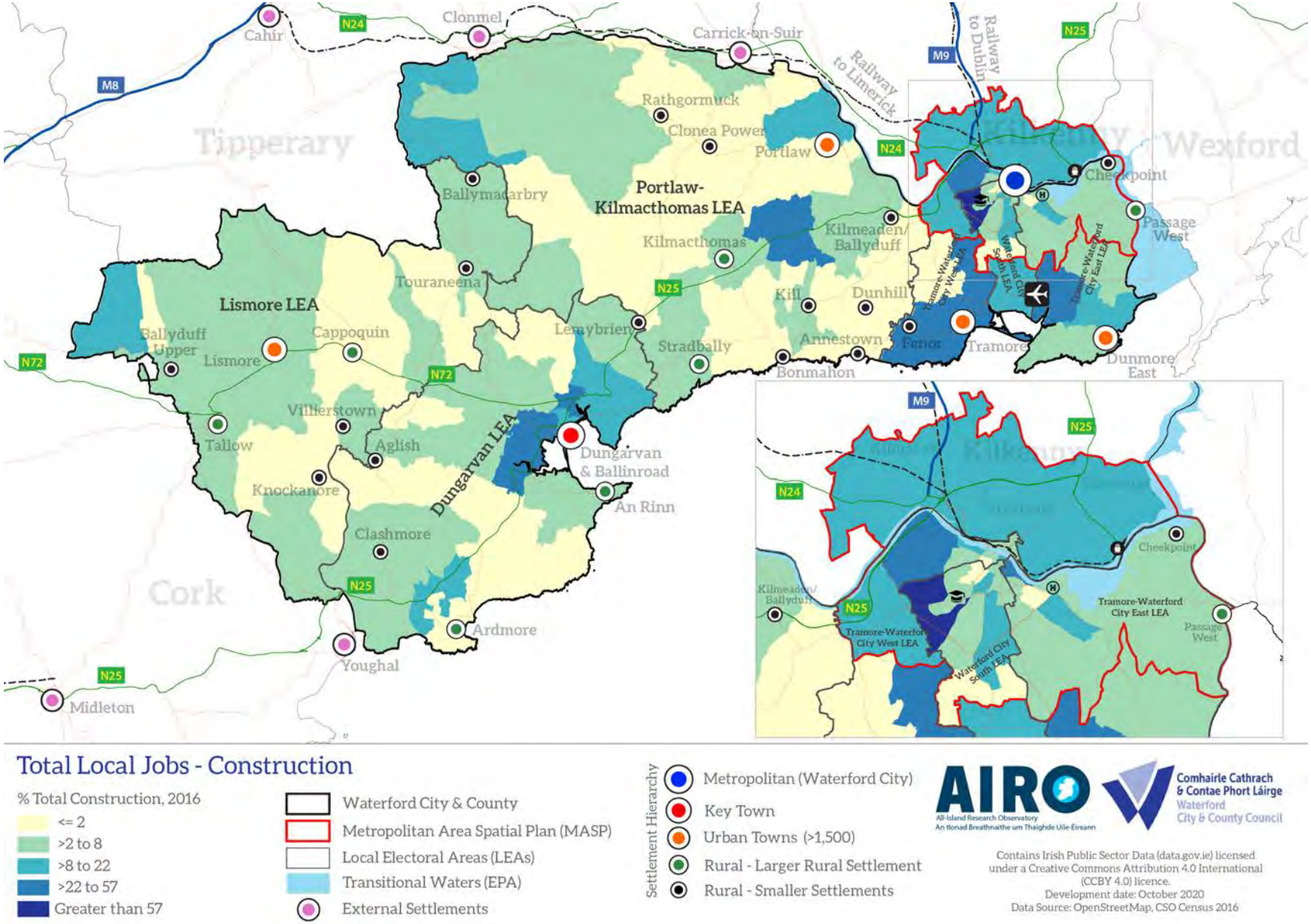
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the Construction category is 1,094 and accounts for 2.8% of all jobs in the county. This rate is the same as the State (2.8%) and regional averages (SRA 2.8% and South-East (a) SPA 2.9%). Waterford accounts for 2.5% of all Construction jobs in the State, 7.7% of the SRA and 22% of the South-East (a) region. It should be noted that many Construction jobs are mobile in nature and are as such not specific to any location (plumbing, electricians etc.).
- The proportion of Construction jobs located within the Waterford MASP area is low and accounts for 2.4% of the 27,345 jobs in this area. At Municipal District level there is a very uneven distribution. The rural Comeragh MD has a rate of 5.4% - well in excess of any other part of the county. In contrast Dungarvan-Lismore (MD) and Metropolitan District of Waterford City (MD) have much lower rates of 2.6% and 2.7%, respectively.
- The maps on the following pages outline the distribution of Construction Jobs in Waterford. Map 3.7 presents the percentage share of Construction jobs in each Electoral Divisions while Map 3.8 presents the actual number of jobs.

Local Jobs: % Jobs Construction, 2016



Map 3.7: Local Jobs - % Jobs Construction, 2016 (Source: CSO)

Local Jobs: Total Jobs Construction, 2016



Map 3.8: Local Jobs - Total Jobs Construction, 2016 (Source: CSO)

Local Jobs: % Jobs Wholesale, Retail and Transportation, 2016

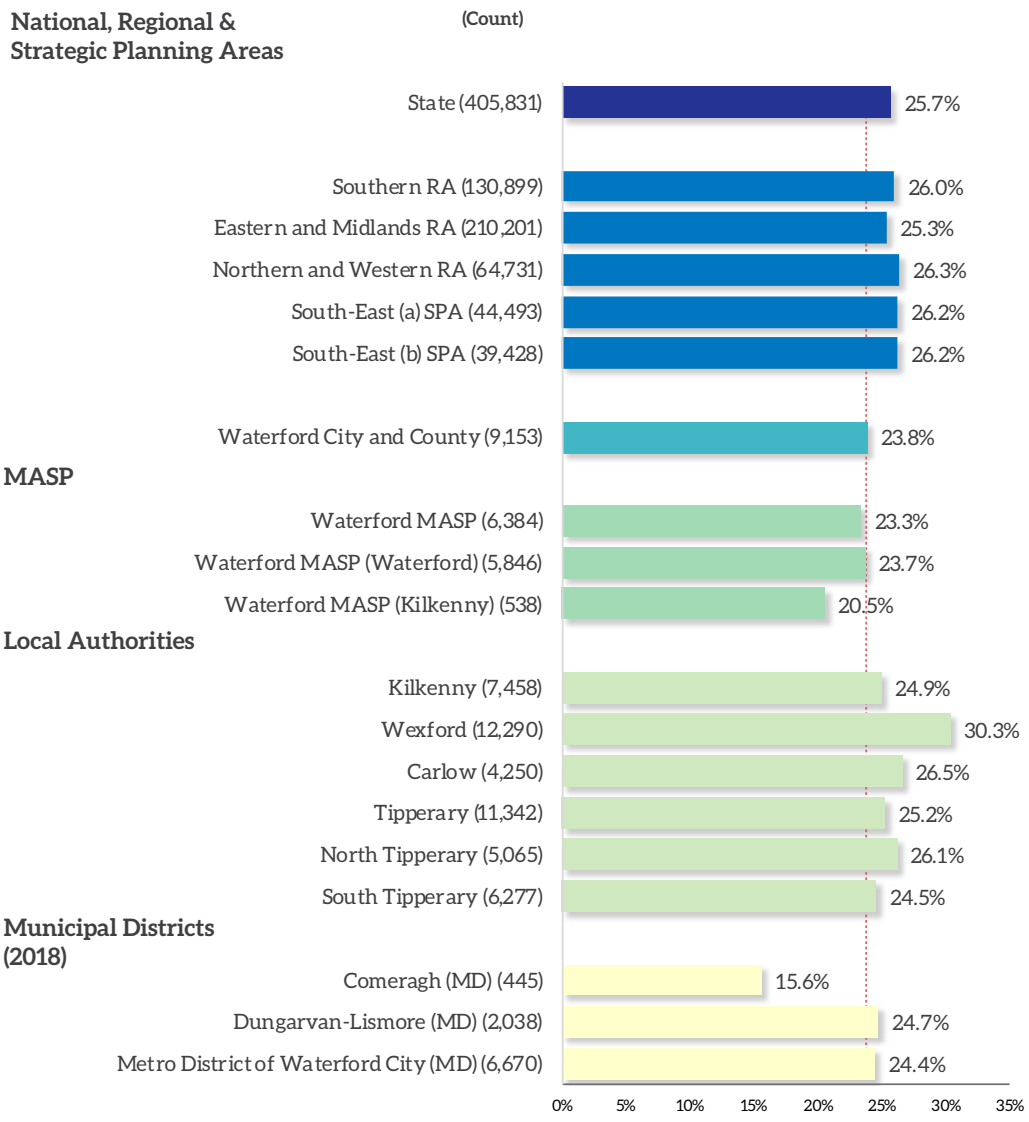


Figure 3.7: Local Jobs - % Jobs Wholesale, Retail & Transportation, 2016 (Source: CSO)

20th Highest # in State

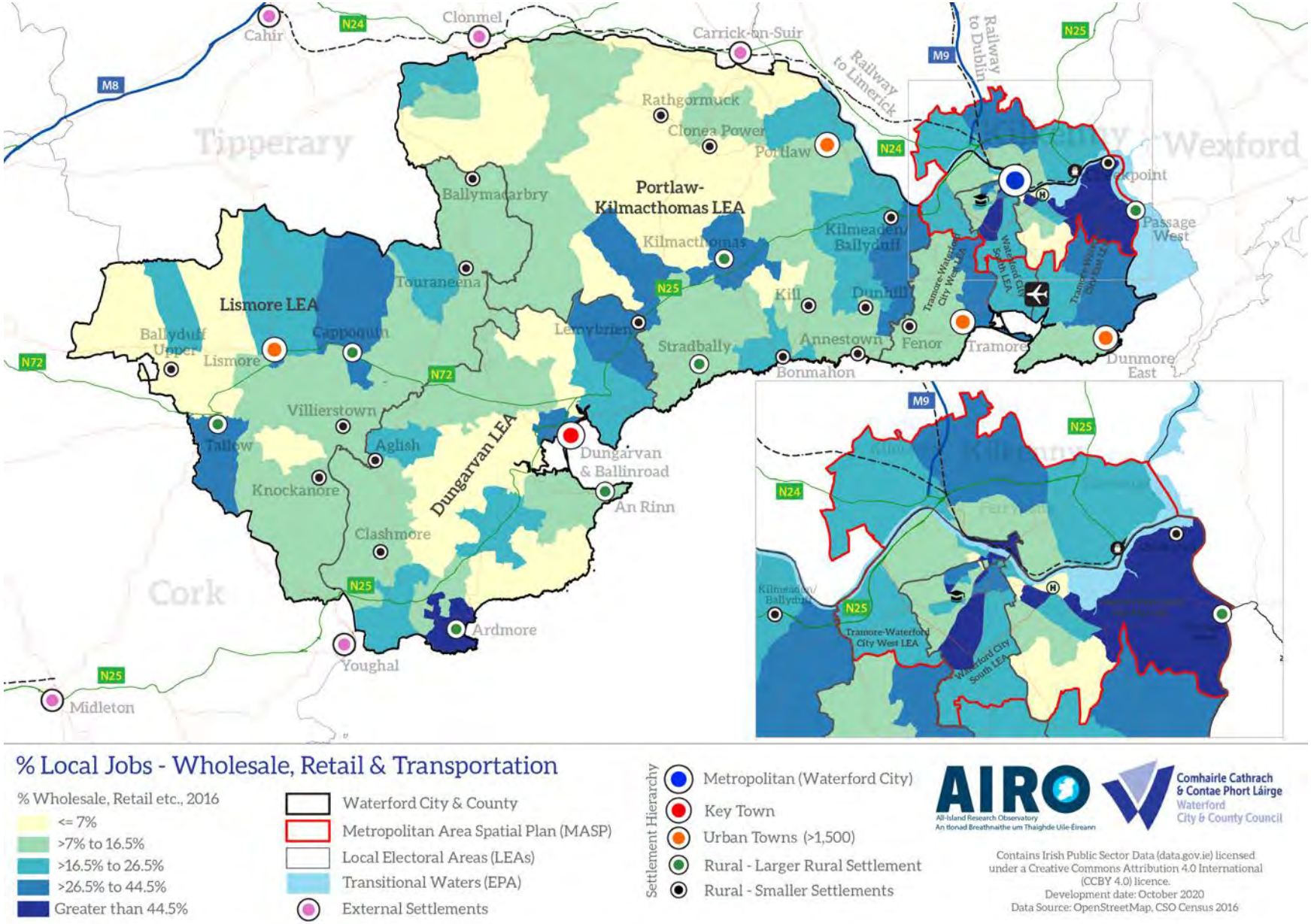
26th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

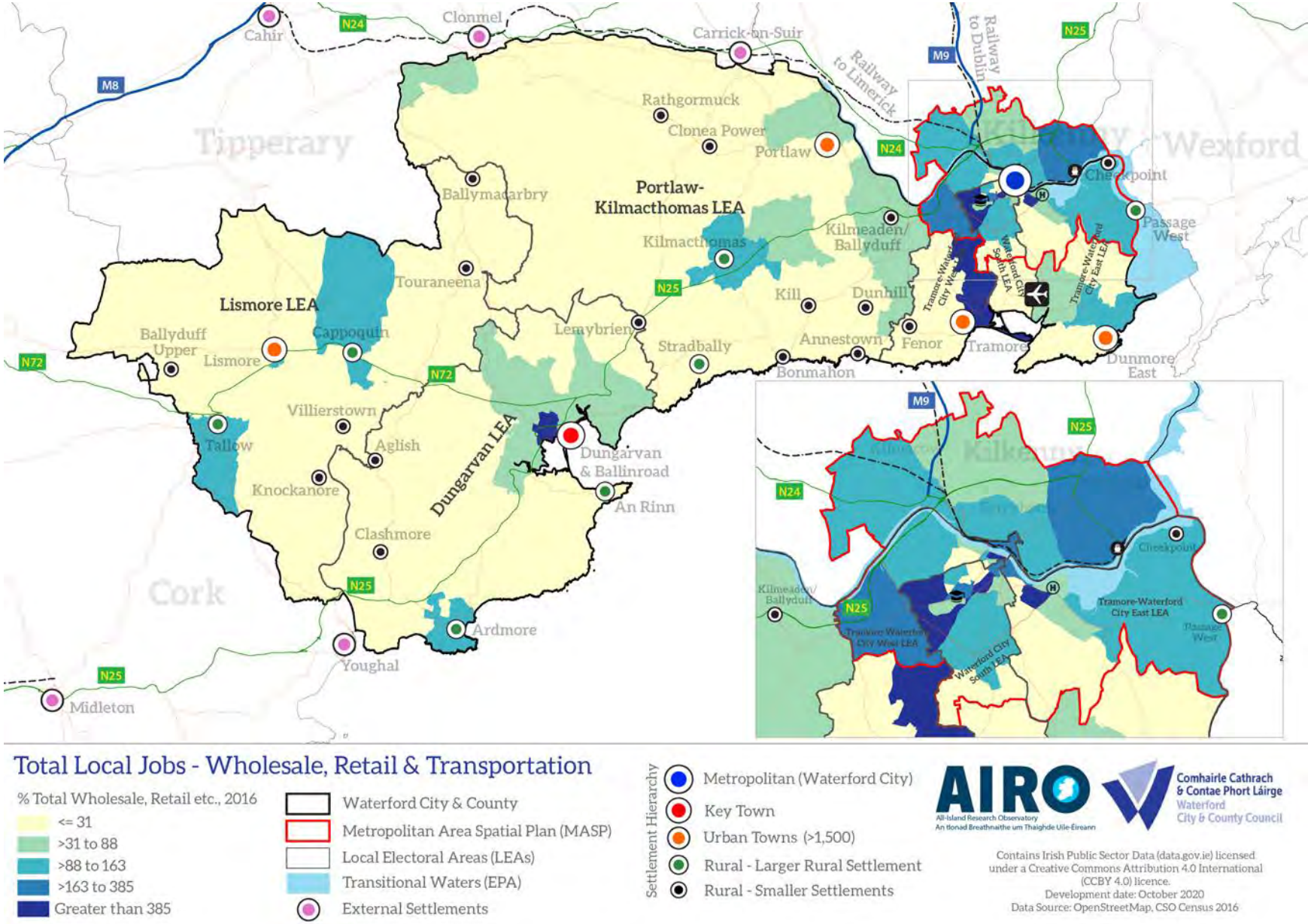
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the Wholesale, Retail and Transportation category is 9,153 and accounts for 23.8% of all jobs in the county. This rate is lower than the State (25.7%) average and the regional averages (SRA 26% and South-East (a) SPA 26.2%). Waterford accounts for 22.5% of all Wholesale, Retail and Transportation jobs in the State, 6% of the SRA and 13.4% of the South-East (a) region.
- The proportion of Wholesale, Retail and Transportation jobs located within the Waterford MASP area is high and accounts for 23.3% of the 27,345 jobs in this area. At Municipal District level there is an uneven distribution. Comeragh that has a rate of 15.6% - well below of any other part of the county with Dungarvan-Lismore (MD) and Metropolitan District of Waterford City (MD) recording rates of 24.7 and 24.4%.
- The maps on the following pages outline the distribution of Wholesale, Retail and Transportation Jobs in Waterford. Map 3.9 presents the percentage share of Wholesale, Retail and Transportation jobs in each Electoral Divisions while Map 3.10 presents the actual number of jobs.

Local Jobs: % Jobs Wholesale, Retail and Transportation, 2016



Map 3.9: Local Jobs - % Jobs Wholesale, Retail & Transportation, 2016 (Source: CSO)

Local Jobs: Total Jobs Wholesale, Retail and Transportation, 2016



Map 3.10: Local Jobs - Total Jobs Wholesale, Retail & Transportation, 2016 (Source: CSO)

Local Jobs: % ICT, Financial and Real Estate, 2016

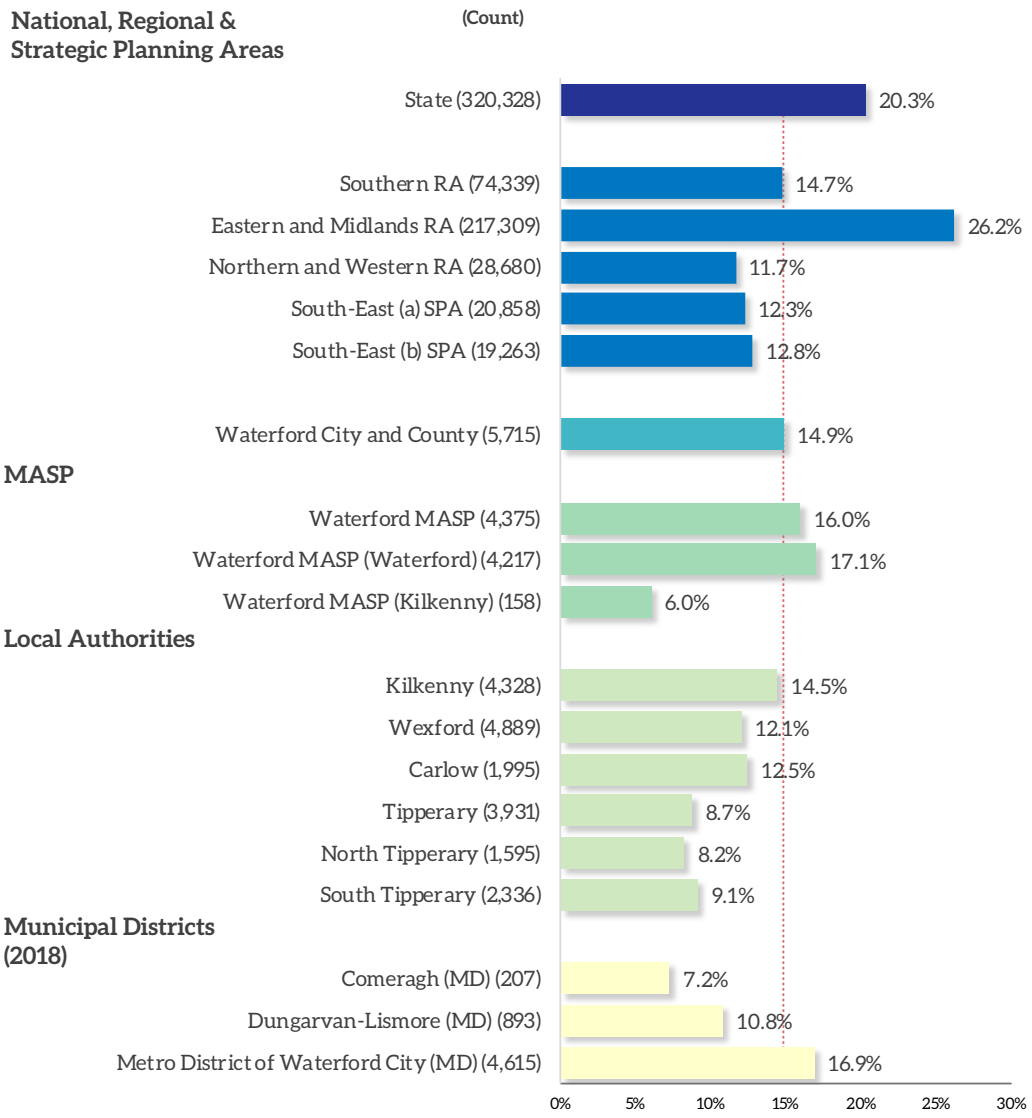


Figure 3.8: Local Jobs - % ICT, Financial & Real Estate, 2016 (Source: CSO)

10th Highest # in State

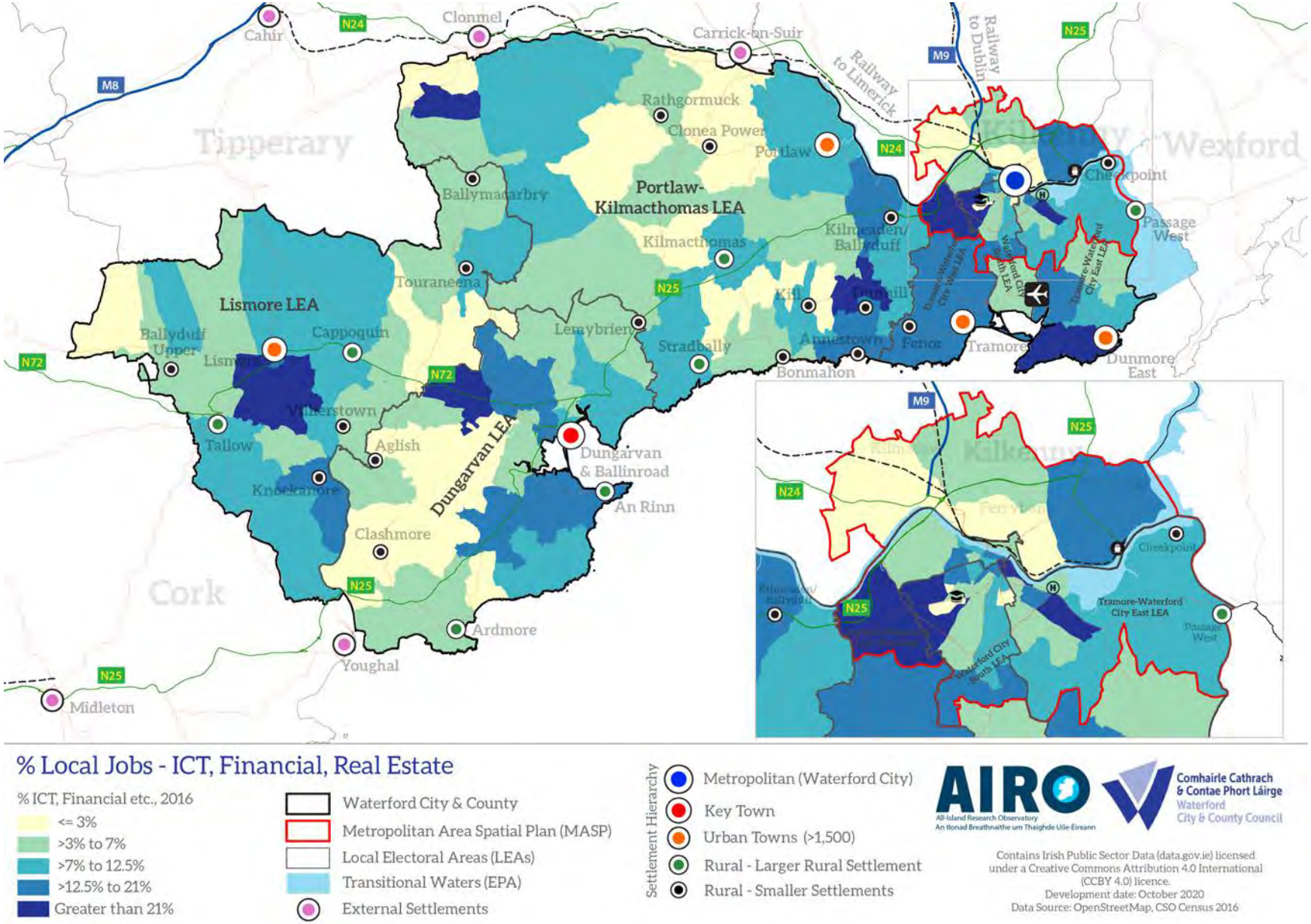
8th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

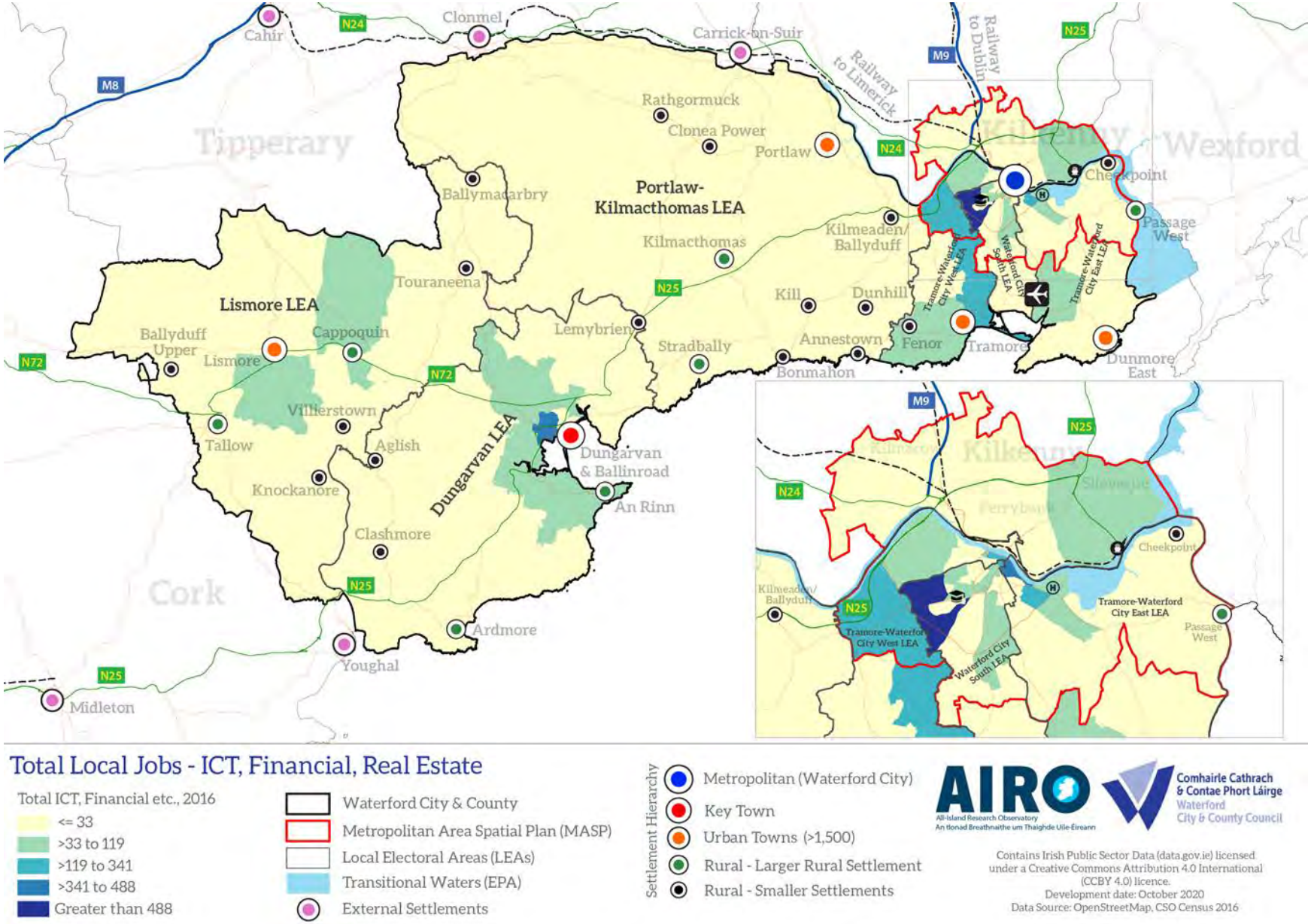
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the ICT, Financial and Real Estate category is 5,715 and accounts for 14.9% of all jobs in the county. This rate is much lower than the State (20.3%) average but is marginally higher than the regional averages (SRA 14.7% and South-East (a) SPA 12.3%). Waterford accounts for 17.8% of all ICT, Financial and Real Estate jobs in the State, 7.7% of the SRA and 27.4% of the South-East (a) region.
- The proportion of ICT, Financial and Real Estate jobs located within the Waterford MASP area is high and accounts for 16% of the 27,345 jobs in this area. The rate within the Kilkenny area of the MASP is much lower at 6%. At Municipal District level there is an uneven distribution. The rural Comeragh MD has a rate of 7.2% and Dungarvan-Lismore with a rate of 10.8%. Both are well below the Metropolitan District of Waterford City (MD) which has a much higher rate of 16.9%.
- The maps (on the following pages outline the distribution of ICT, Financial and Real Estate Jobs in Waterford. Map 3.11 presents the percentage share of ICT, Financial and Real Estate jobs in each Electoral Divisions while Map 3.12 presents the actual number of jobs.

Local Jobs: % ICT, Financial and Real Estate, 2016



Map 3.11: Local Jobs - % ICT, Financial & Real Estate, 2016 (Source: CSO)

Local Jobs: Total ICT, Financial and Real Estate, 2016



Map 3.12: Local Jobs - Total ICT, Financial & Real Estate, 2016 (Source: CSO)

Local Jobs: % Public Administration etc., 2016

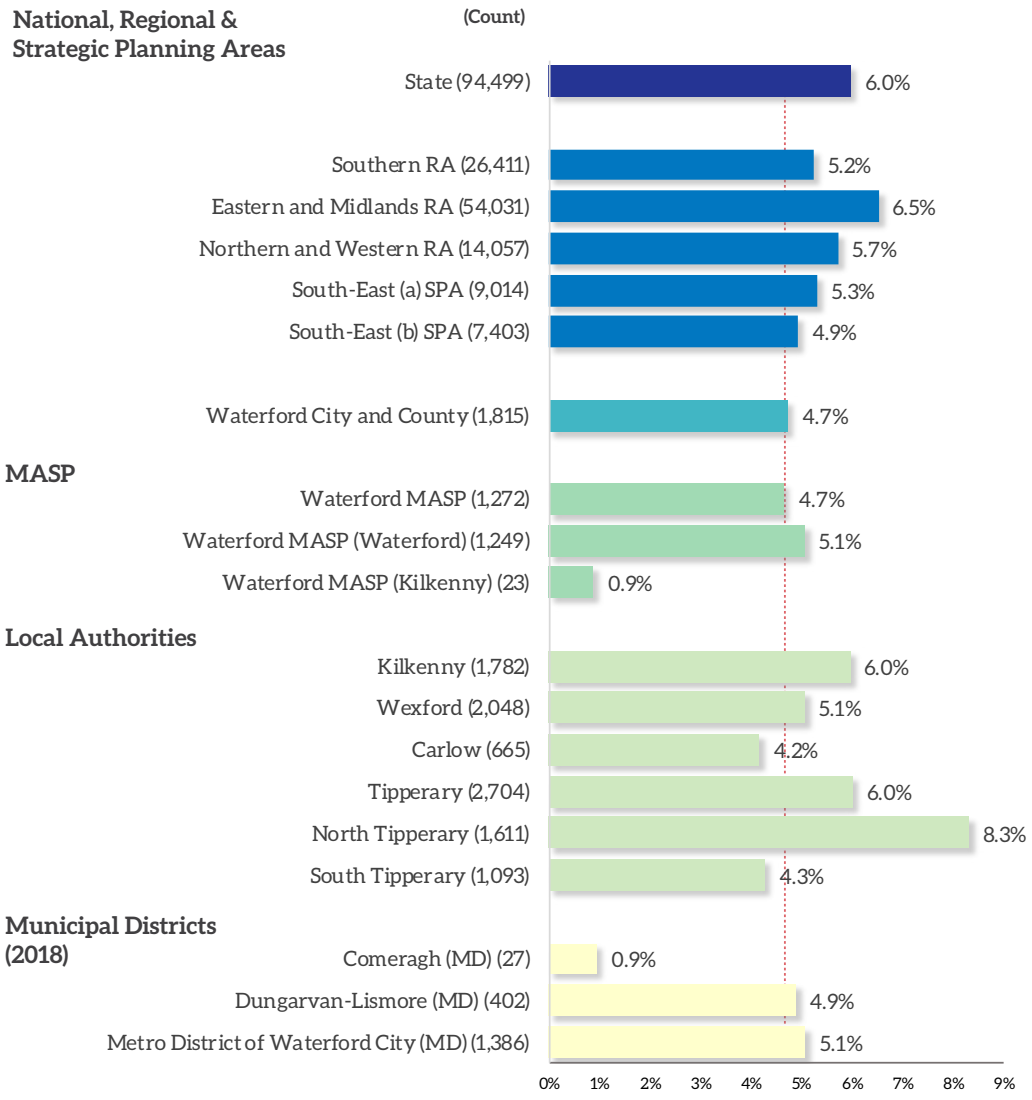


Figure 3.9: Local Jobs - % Public Administration etc., 2016 (Source: CSO)

20th Highest # in State

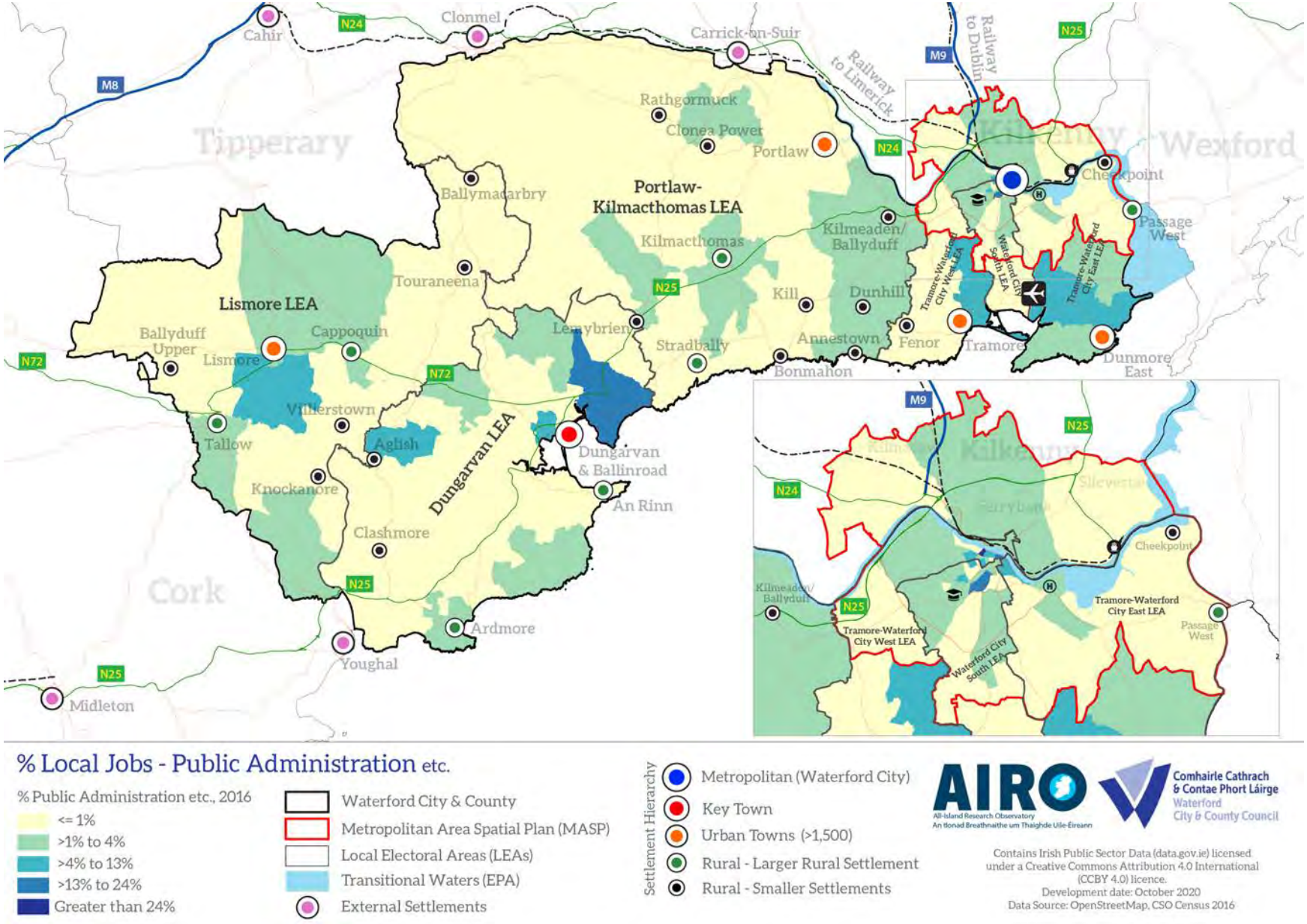
22nd Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

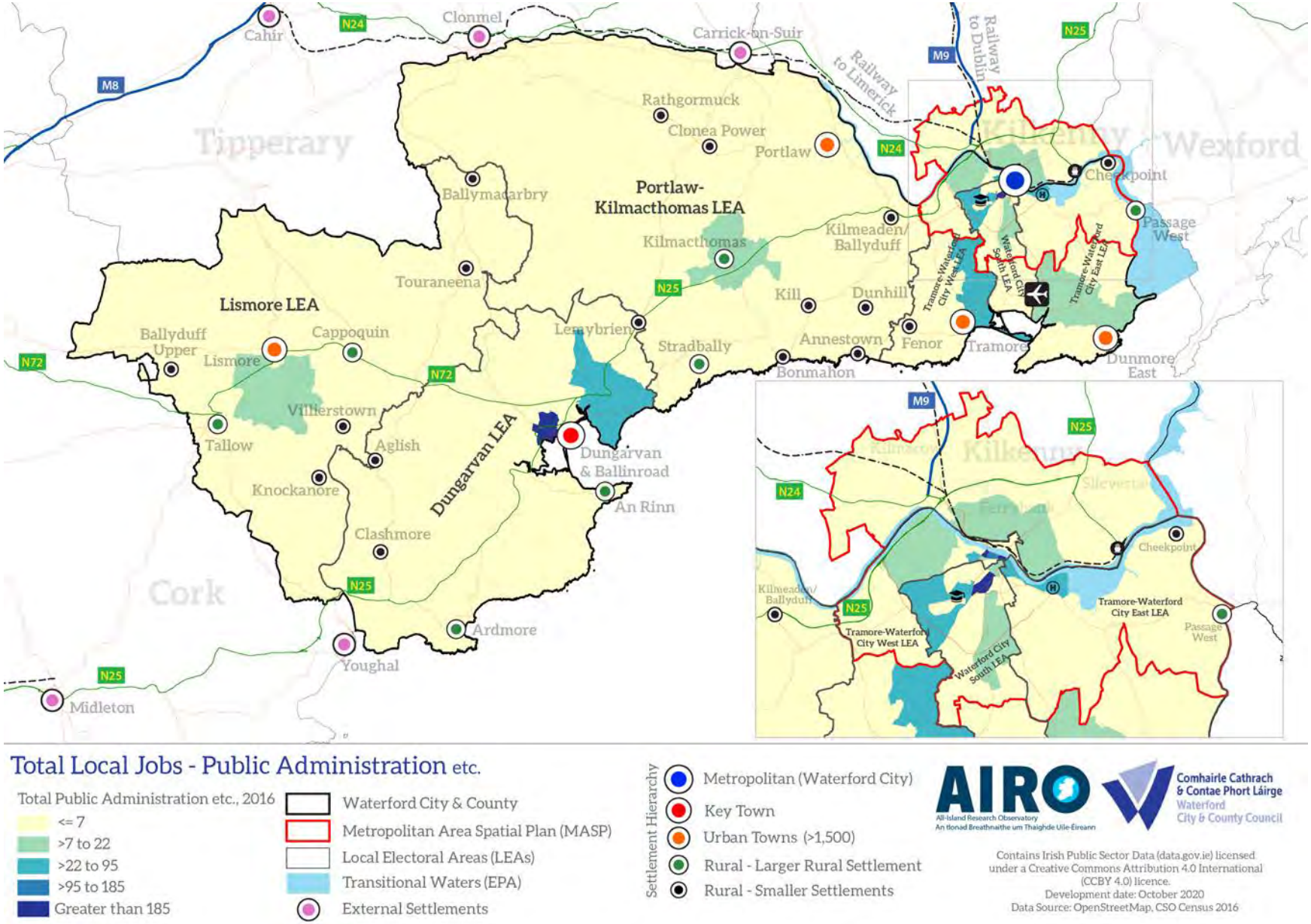
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified as Public Administration etc. category is 2,031 and accounts for 4.7% of all jobs in the county. This rate is lower than the State (6%) average and is marginally lower than the regional averages (SRA 5.2% and South-East (a) SPA 5.3%). Waterford accounts for 1.9% of all Public Administration etc. jobs in the State, 6.9% of the SRA and 20.1% of the South-East (a) region.
- The proportion of Public Administration etc. jobs located within the Waterford MASP area is low and accounts for 4.7% of the 27,345 jobs in this area. At Municipal District level there is a very uneven distribution. The rural Comeragh MD has a rate of 0.9% - well below of any other part of the county. In contrast the Dungarvan-Lismore (MD) and Metropolitan District of Waterford City (MD) have higher rates at 4.9% and 5.1%, respectively.
- The maps on the following pages outline the distribution of Public Administration etc. Jobs in Waterford. Map 3.13 presents the percentage share of Public Administration etc. jobs in each Electoral Divisions while Map 3.14 presents the actual number of jobs.

Local Jobs: % Public Administration etc., 2016



Map 3.13: Local Jobs - % Public Administration etc., 2016 (Source: CSO)

Local Jobs: Total Public Administration etc., 2016



Map 3.14: Local Jobs - Total Public Administration etc., 2016 (Source: CSO)

Local Jobs: % Education, Social Work etc., 2016

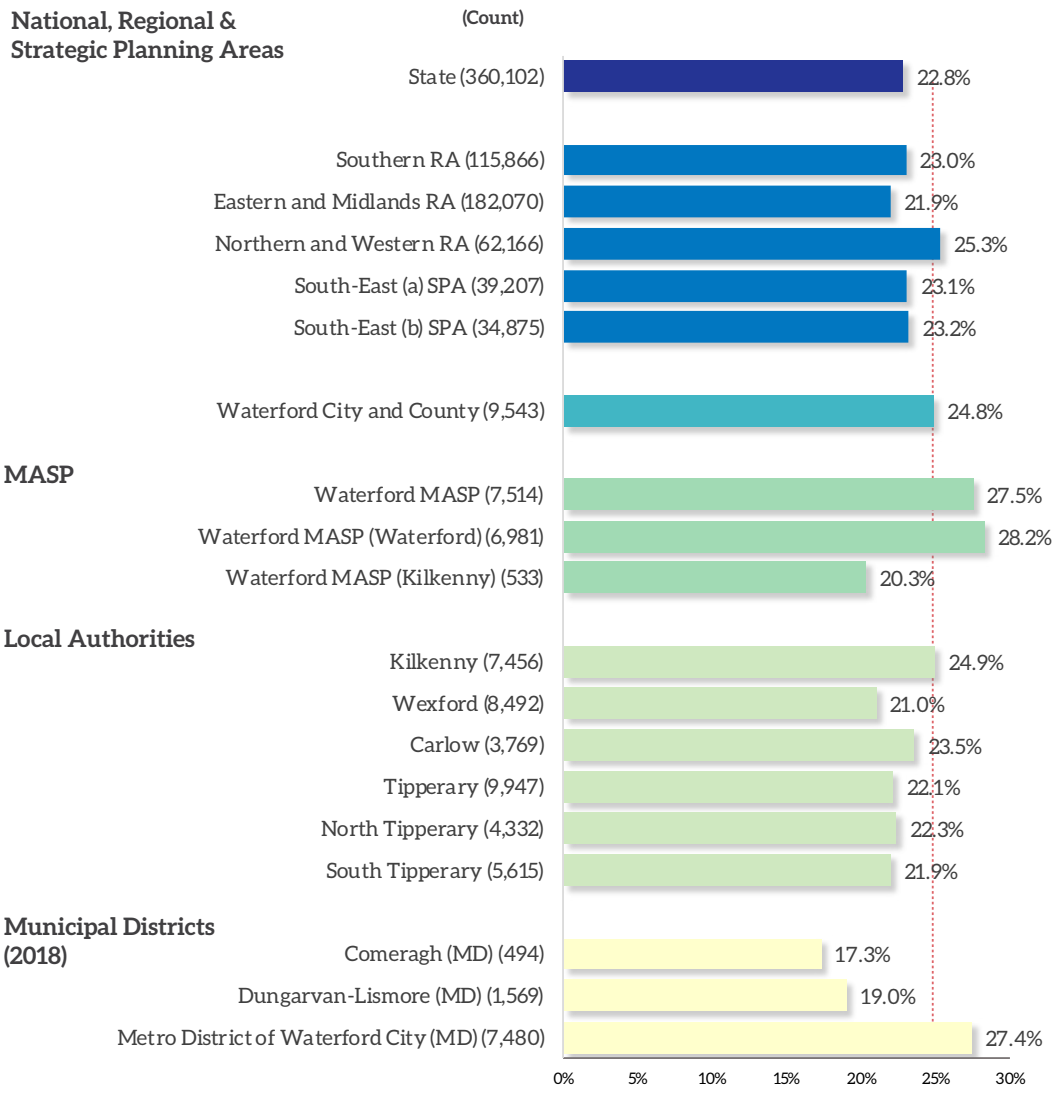


Figure 3.10: Local Jobs - % Education, Social Work etc., 2016 (Source: CSO)

15th Highest # in State

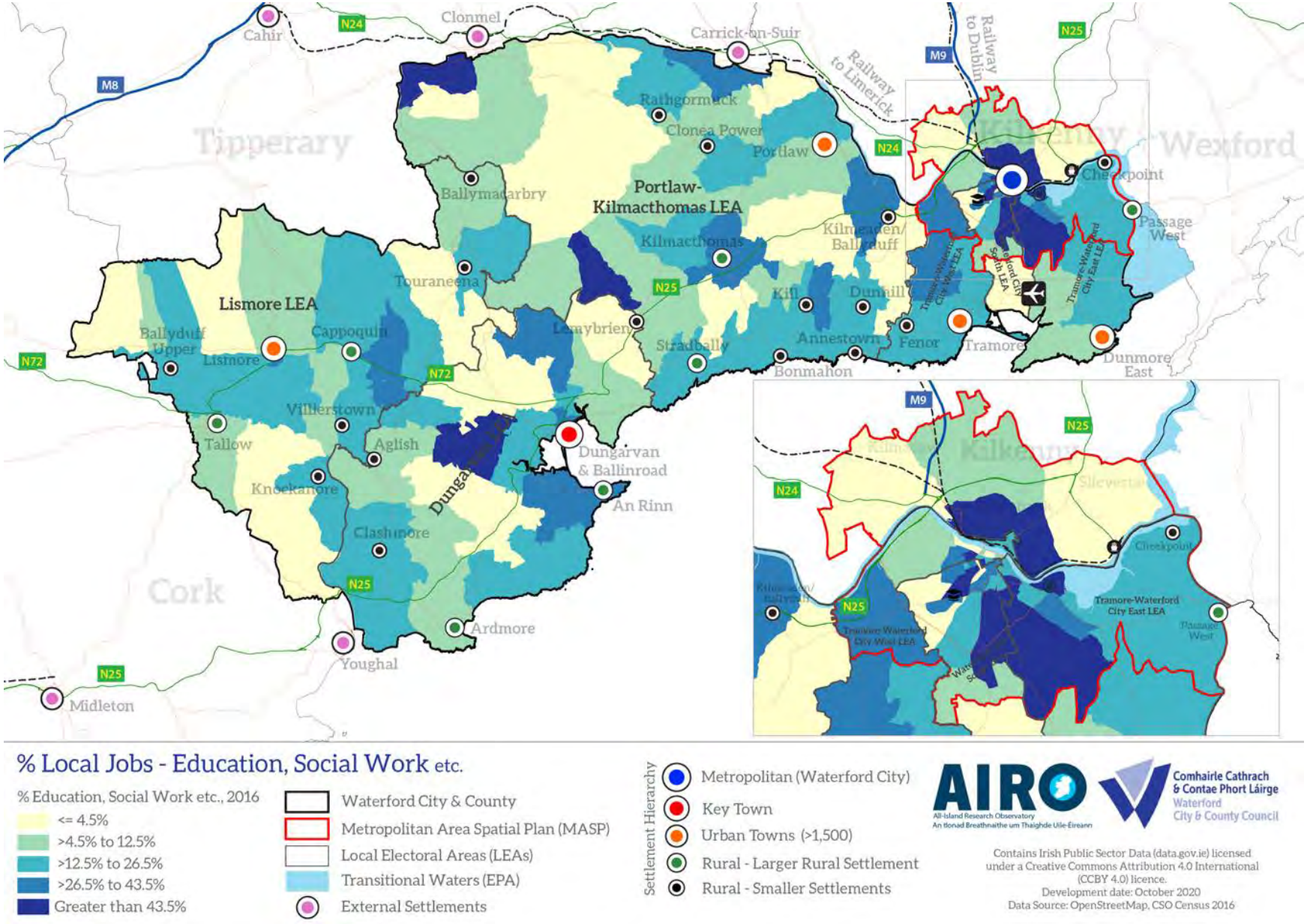
11th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

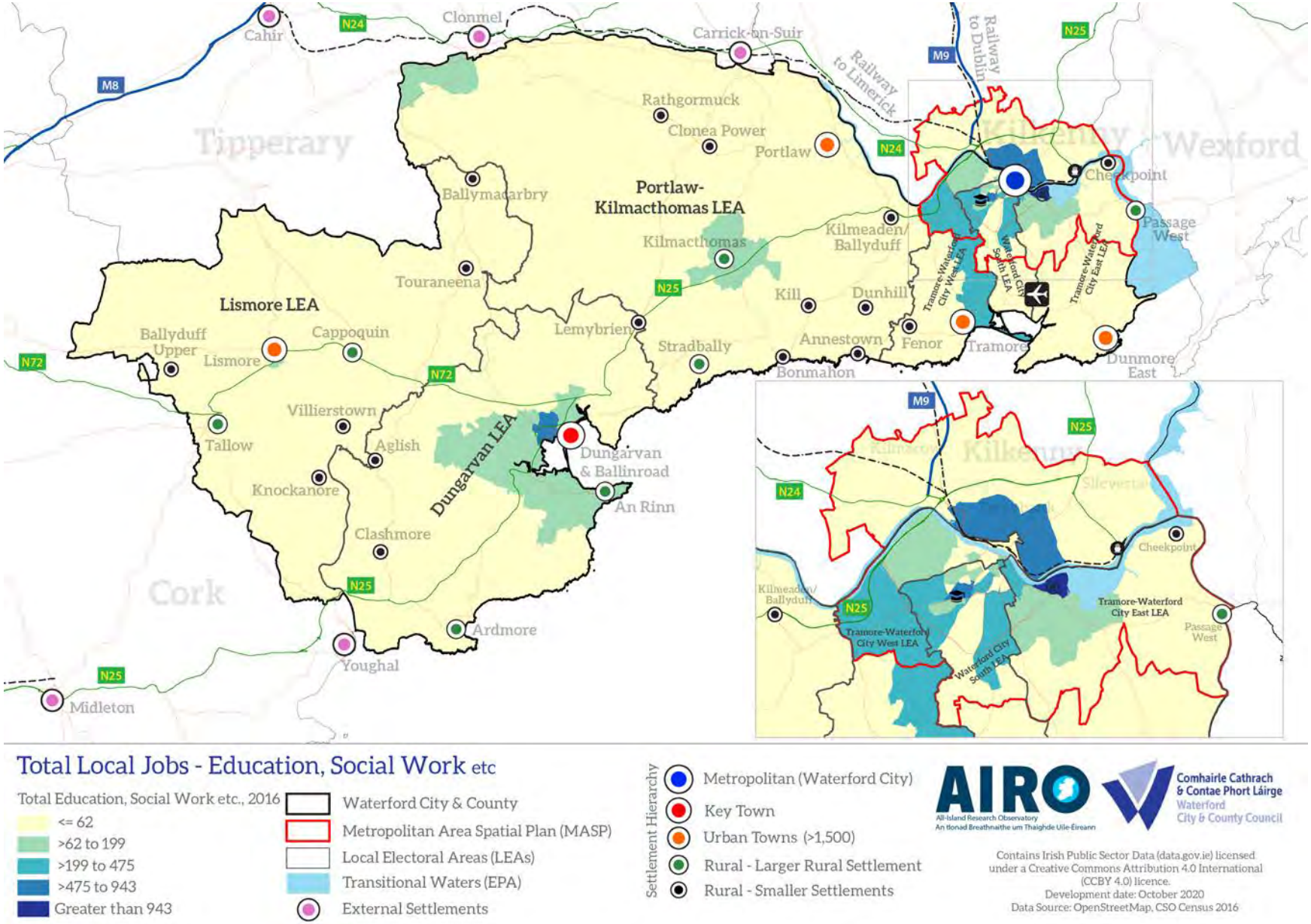
- According to Census 2016 (POWSCAR database), the total number jobs located in Waterford classified within the Education, Social Work etc. category is 9,543 and accounts for 24.8% of all jobs in the county - this is the highest rate in the county. This rate is higher than the State (22.8%) average and the regional averages (SRA 23% and South-East (a) SPA 23.1%) . Waterford accounts for 3% of all Education, Social Work etc. jobs in the State, 6% of the SRA and 13.4% of the South-East (a) region.
- The proportion of Education, Social Work etc. jobs located within the Waterford MASP area very high and accounts for 27.5% of the 27,345 jobs in this area - the largest employer in the area. At Municipal District level there is a very uneven distribution. The urban Metropolitan District of Waterford City has a rate of 27.4% - well above other part of the county. In contrast, the rural Comeragh (MD) and Dungarvan-Lismore (MD) have a much lower rates of 17.3% and 19%, respectively.
- The maps on the following pages outline the distribution of Education, Social Work etc. Jobs in Waterford. Map 3.15 presents the percentage share of Education, Social Work etc. jobs in each Electoral Divisions while Map 3.16 presents the actual number of jobs.

Local Jobs: % Education, Social Work etc., 2016



Map 3.15: Local Jobs - % Education, Social Work etc., 2016 (Source: CSO)

Local Jobs: Total Education, Social Work etc., 2016



Map 3.16: Local Jobs - Total Education, Social Work etc., 2016 (Source: CSO)

Mode of Travel to Work/Education - Green Modes, 2016

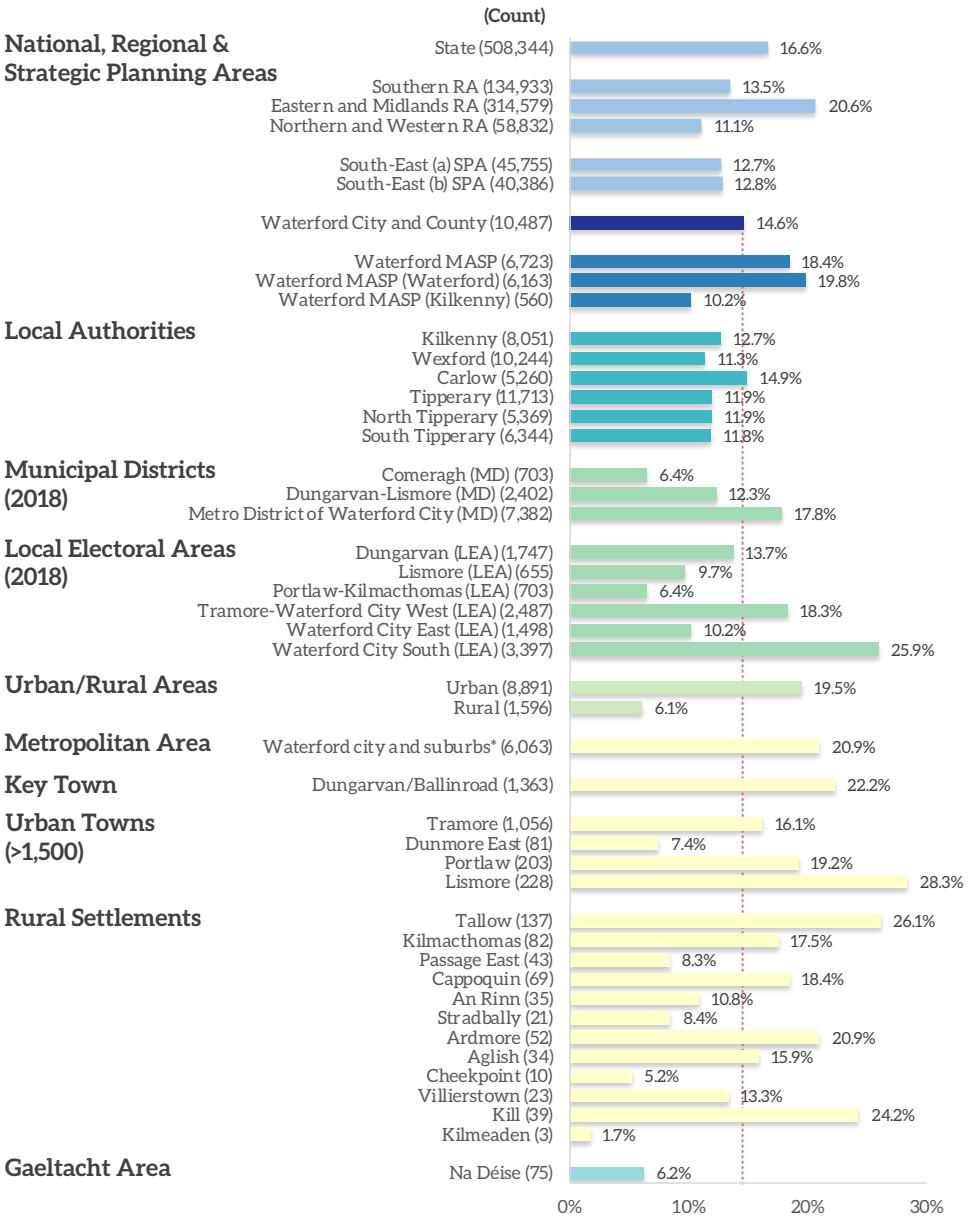


Figure 3.11: Mode of Transport to Work/Education - Green Mode 2016 (Source: CSO)

14th Highest # in State

11th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

+2.1% or + 212

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population travelling to work/ education using Green modes is 10,487 and accounts for 14.6% of the total population within the county - marginally higher than the State average (16.6%). The Waterford total accounts for 2.1% of the population using Green Modes to travel to work/education residing in the State (508,344) and 7.8% of those residing in the SRA (134,933).
- Within the Waterford MASP area the rate (18.4%) is higher than the county average (14.6%) - the Kilkenny area of the MASP is much lower at 10.2%. There is a considerable contrast across the MDs with Waterford Metro MD (17.8%) recording the highest rate with the more rural Dungarvan-Lismore MD (12.3%) and Comeragh MD (6.4%) much lower rates. Urban areas in Waterford recorded a rate of 20.2% (8,891) while in contrast Rural areas have a considerably lower rate of 6.1% (1,596).
- Across the settlement hierarchy there is a lot of variation with rates ranging from 1.7% (Kilmeaden) to 28.3% (Lismore). Of all the settlements detailed in the hierarchy graphic (18), six settlements have more than 20% of the total population travelling to work/ education using Green modes: Lismore (28.3%), Tallow (26.1%), KIll (24.2%), Dungarvan/Ballinroad (22.2%), Ardmore (20.9) and Waterford City and Suburbs (20.1%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rate of Green Modes are in western urban core of Waterford City.

Mode of Travel to Work/Education - Green Modes, 2016

Map 3.17: Mode of Transport to Work/Education - Green Mode, 2016 (Source: CSO)

Mode of Travel to Work/Education - Public Transport Modes, 2016

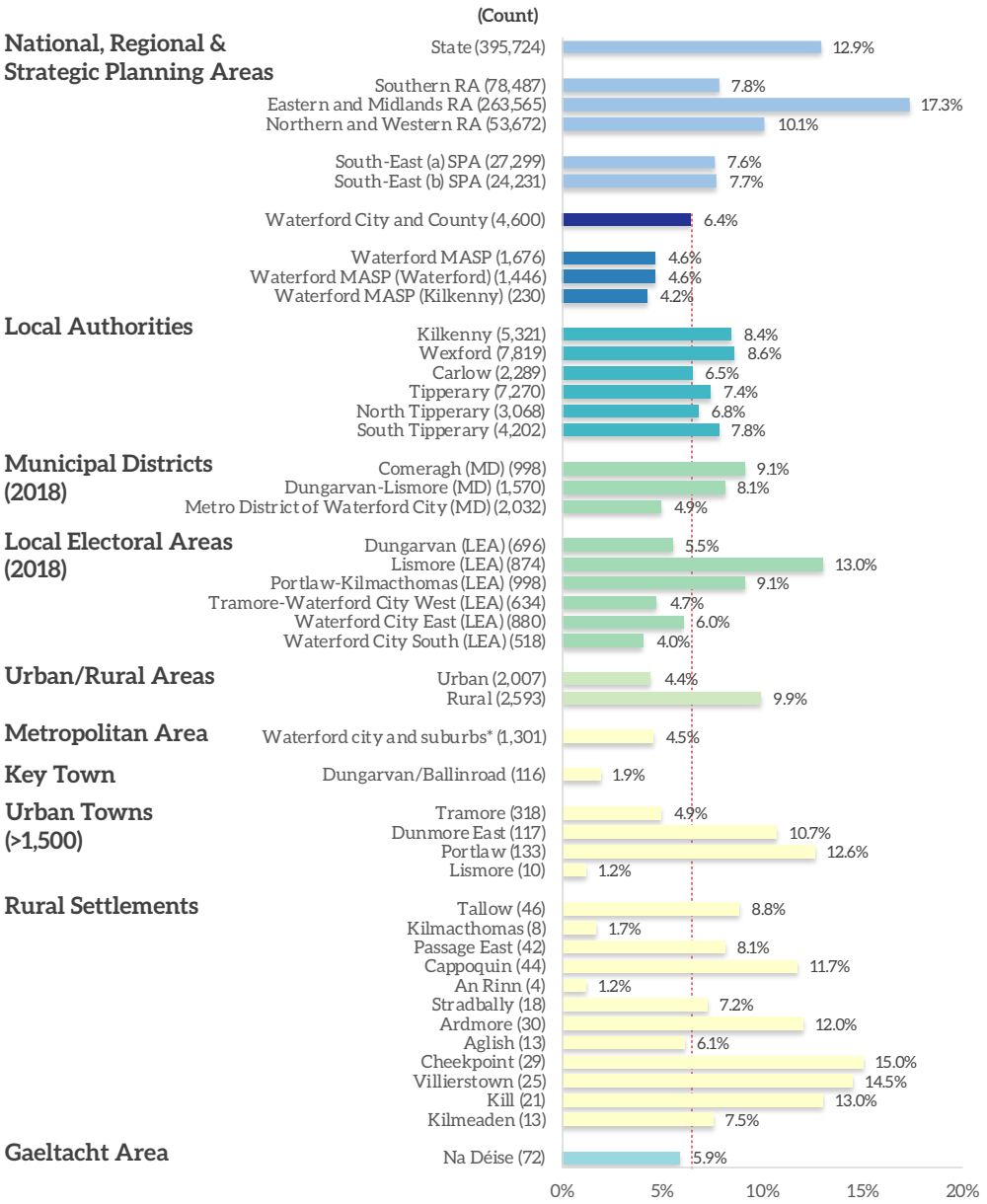


Figure 3.12: Mode of Transport to Work/Education - Public Mode, 2016

6th Lowest # in State

1st Lowest % in State

1 being the highest and 31 the lowest # or % of all local authorities

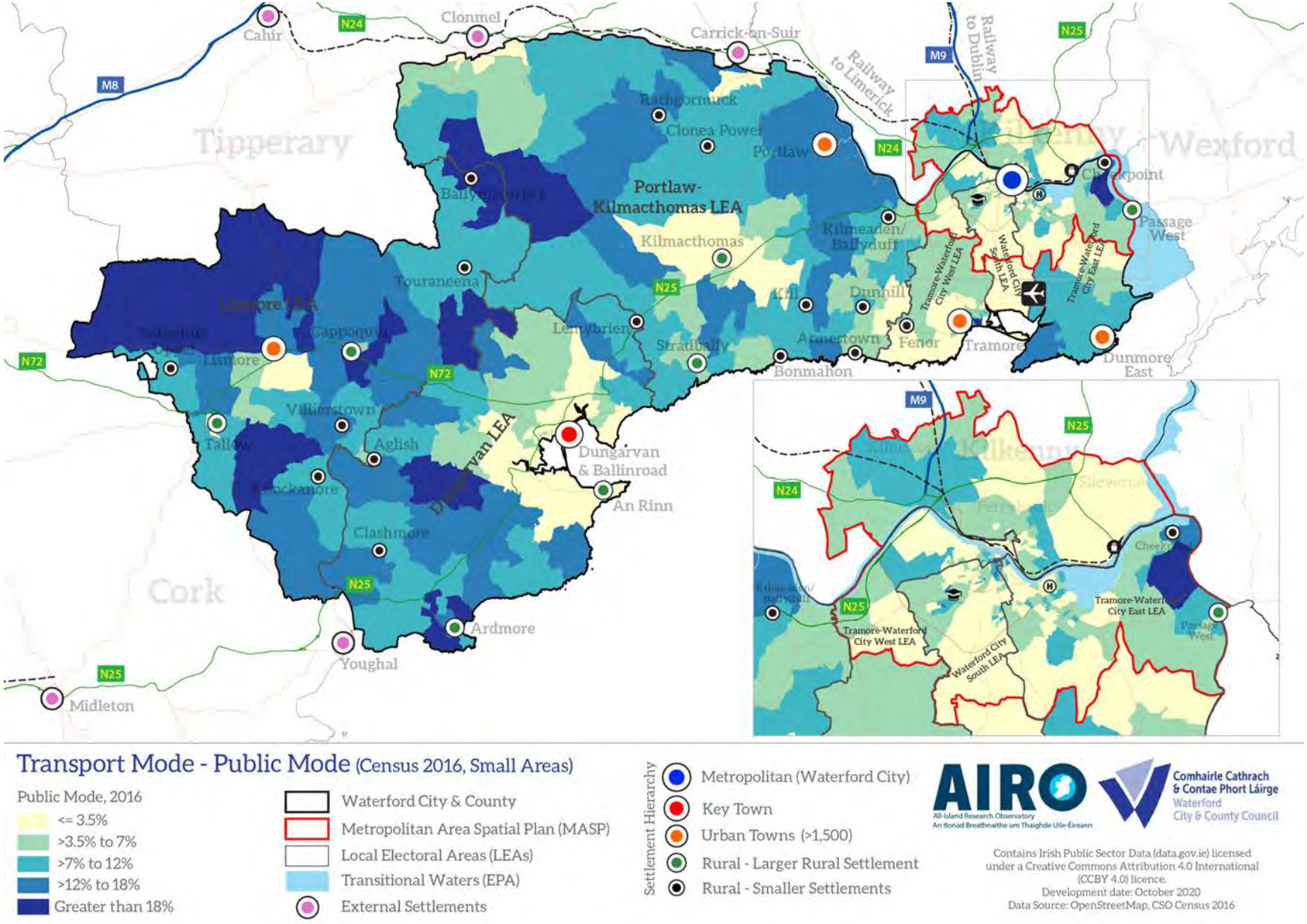
+0.7% or 34

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population travelling to work/education using Public Transport modes is 4,600 and accounts for 6.4% of the population within the county - this is approximately half the State average (12.9%) and the lowest mode rate in the State. The Waterford total accounts for only 2% of the population using Public Modes to travel to work/education residing in the State (395,724) and 5.8% of those residing in the SRA (78,487).
- Within the Waterford MASP area the rate (4.6%) and is lower than the county average (6.4%). There is a high level of contrast across the MDs with Waterford Metro MD (4.9%) recoding the lowest rate and the more rural Dungarvan-Lismore MD (8.1%) and Comeragh MD (9.1%) much higher rates. Waterford City and Environs recorded a rate of 4.5% (1,301) and is well below the rate in all other cities: Dublin (21.2%), Cork (9.25), Limerick (7.32) and Galway (9.7%).
- Across the settlement hierarchy there is a lot of variation with rates ranging from 1.2% (An Rinn) to 15% (Cheekpoint) - although numbers are very low. The map on the opposite page details the distribution at the SA level across Waterford. Highest rates are certainly evident in areas outside the MASP area and in the west of the county. Within Waterford City rates are very low with only a small number of urban SAs with rates >20% modal share.

Mode of Travel to Work/Education - Public Transport Modes, 2016



Map 3.18: Mode of Transport to Work/Education - Public Mode, 2016 (Source: CSO)

Mode of Travel to Work/Education - Private Modes, 2016

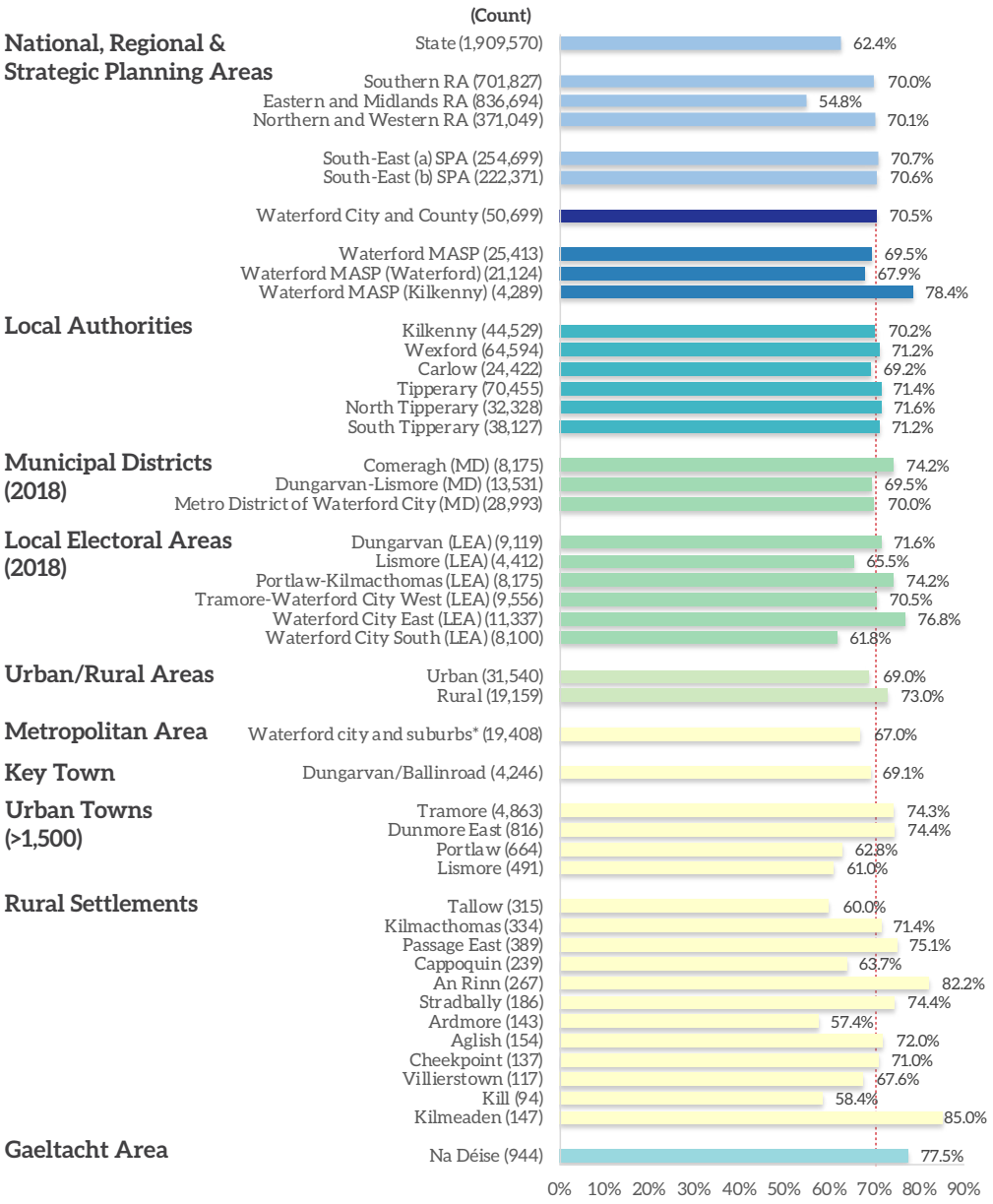


Figure 3.13: Mode of Transport to Work/Education - Private Mode, 2016

19th Highest # in State

11th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

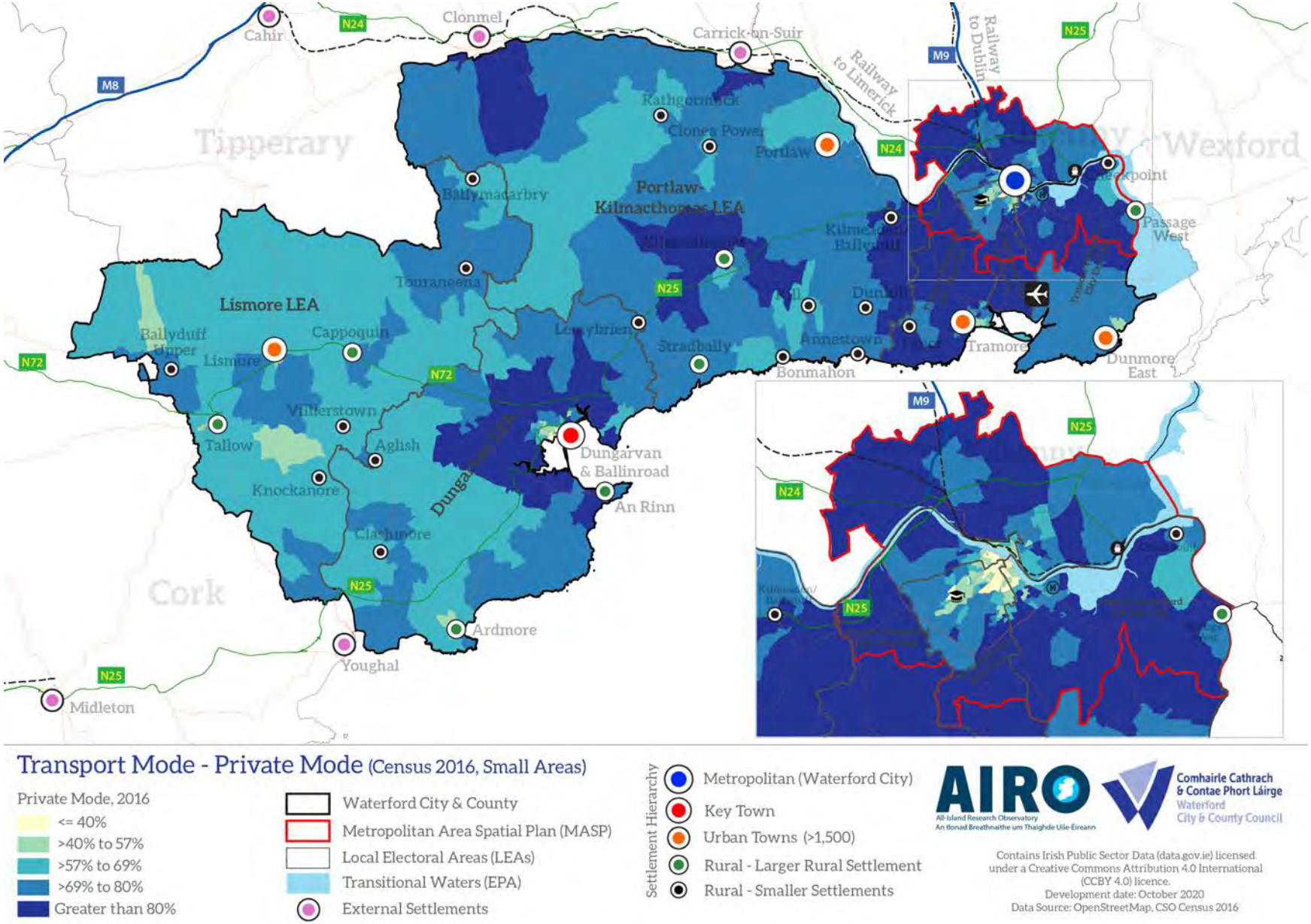
+6.7% or 3,17

Change since 2011

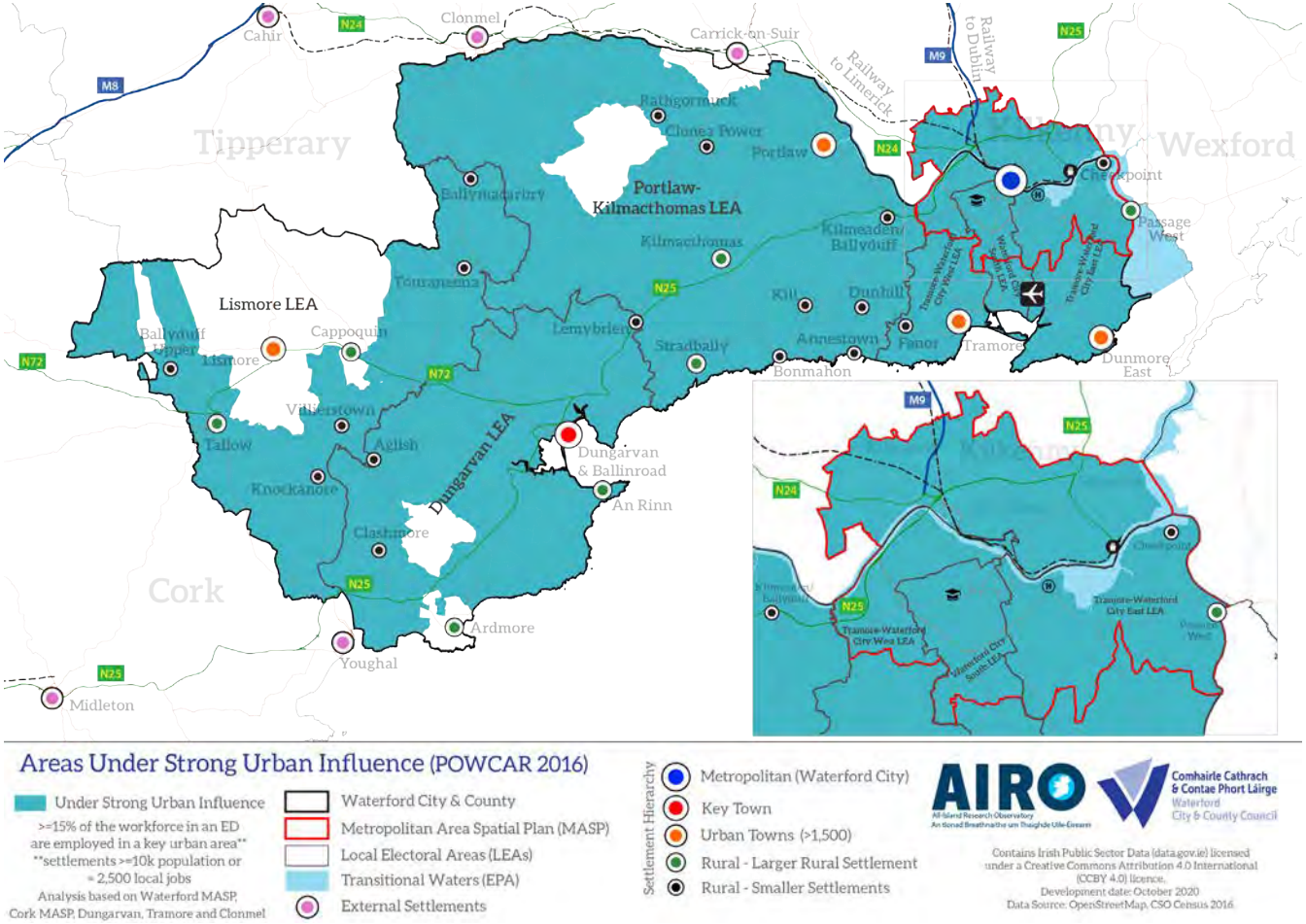
Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population travelling to work/education using Private modes is 50,699 and accounts for 70.5% of the total population within the county - marginally higher than the State average (62.4%). The Waterford total accounts for 2.6% of the population using Private Modes to travel to work/education residing in the State (1.9m) and 7.2% of those residing in the SRA (701,827).
- Within the Waterford MASP area the rate (69.5%) is broadly the same as the county average (70.5%). The Dungarvan-Lismore and Waterford Metro MD have similar rates at approximately 70% with the Comeragh MD having a higher rate at 74.2%. Urban areas in Waterford recorded a rate of 69% (31,350) while Rural areas recorded a marginally higher rate at 73% (19,159).
- Of all the settlements detailed in the hierarchy graphic (18), six settlements have more than three quarters travelling to work/education using Private modes: Kilmeaden (85%), An Rinn (82.2%), and Passage East (75.1%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rate of Private Modes are in the peripheral parts of the MASP where with the exception of Waterford City rates are >80%.

Mode of Travel to Work/Education - Private Modes, 2016



Map 3.19: Mode of Transport to Work/Education - Private Mode, 2016 (Source: CSO)

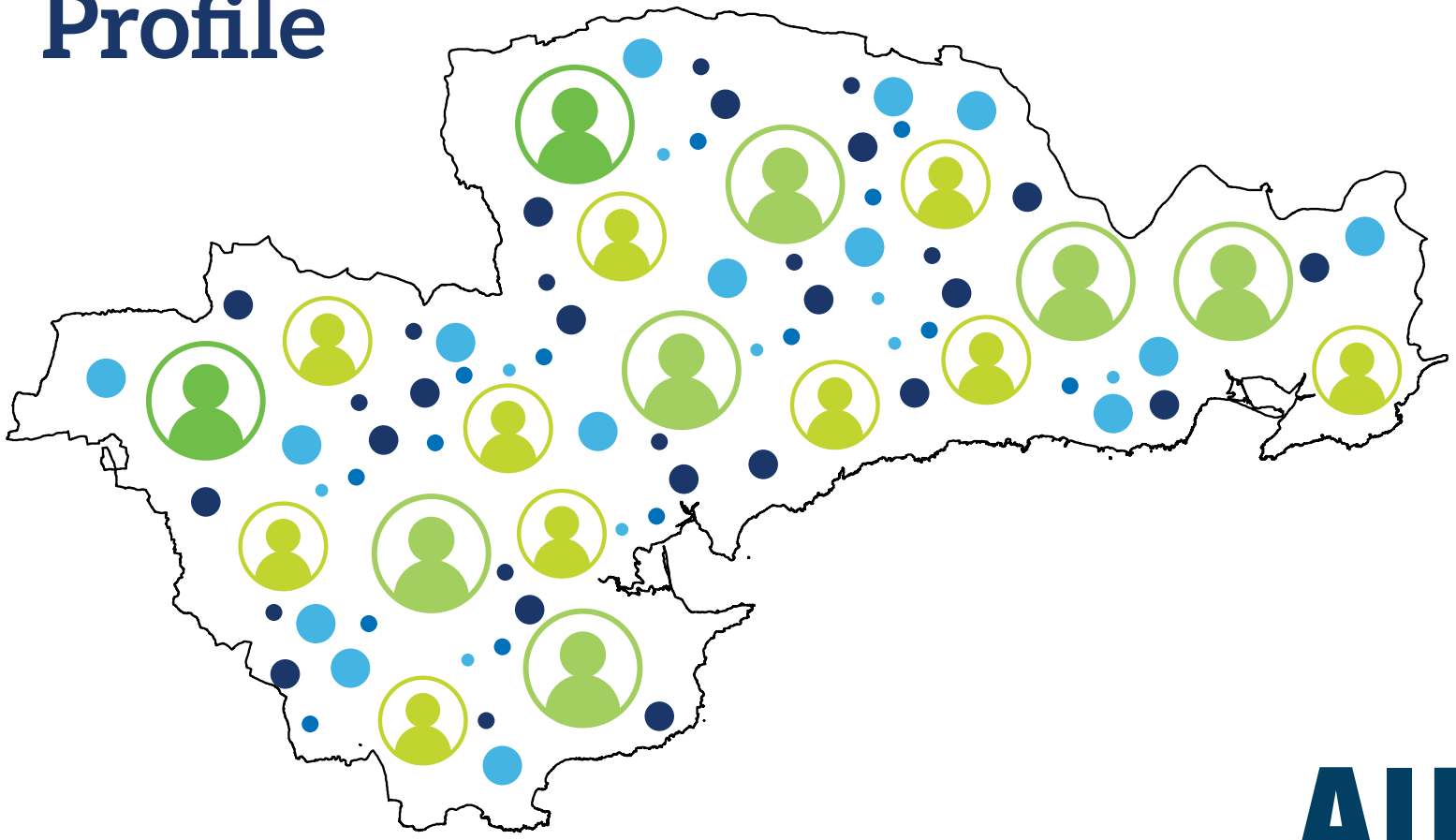


Map 3.20: Areas Under Strong Urban Influence, 2016 (Source: CSO)

- The delineation of areas under urban influence, i.e. the commuter catchment of cities and large towns and centres of employment, is undertaken by analysing the results from the CSO Place of Work Census of Anonymised Records (POWCAR). For guidance, NPF describes large towns and employment centres as towns with a population of more than 10,000 people or more than 2,500 jobs. NPF also suggests the use of a standard EU/ OECD definition to map the commuter catchments where 15% of the local workforce is employed in the selected towns and centres of employment (at Electoral Division (ED) level). As such, it was appropriate to undertake a commuting analysis for the following settlements/destinations within and in close proximity to Waterford: Waterford MASP, Cork MASP, Tramore, Dungarvan and Clonmel.
- The map above details the output from this analysis process. All EDs with >15% of the resident workforce employed within the selected settlements (green areas n= 120 of 129 EDs) are classed as Areas Under Strong Urban Influence.

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 4: Education Profile



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Education: No Formal/Primary, 2016

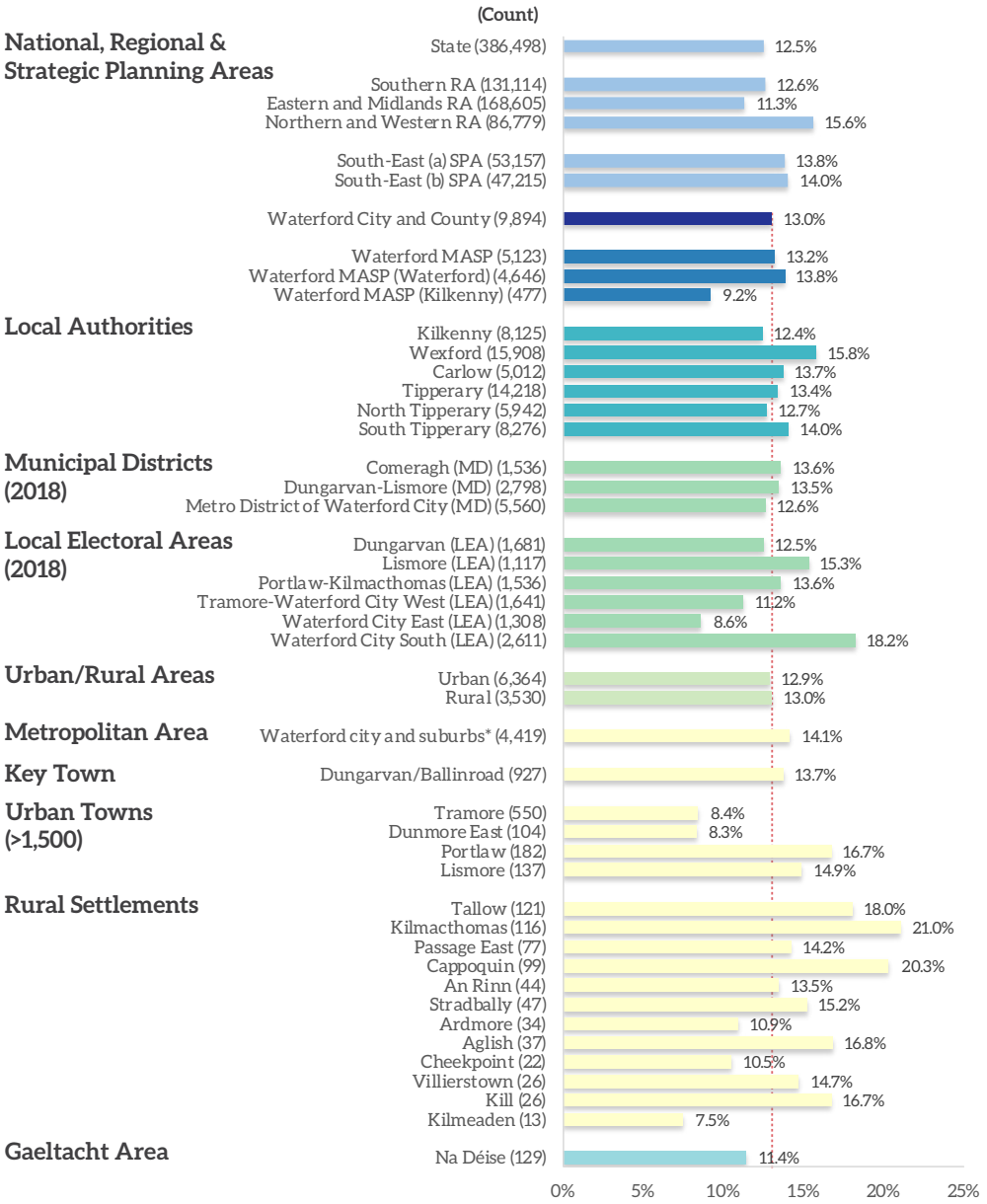


Figure 4.1: Education - No Formal/Primary, 2016 (Source: CSO)

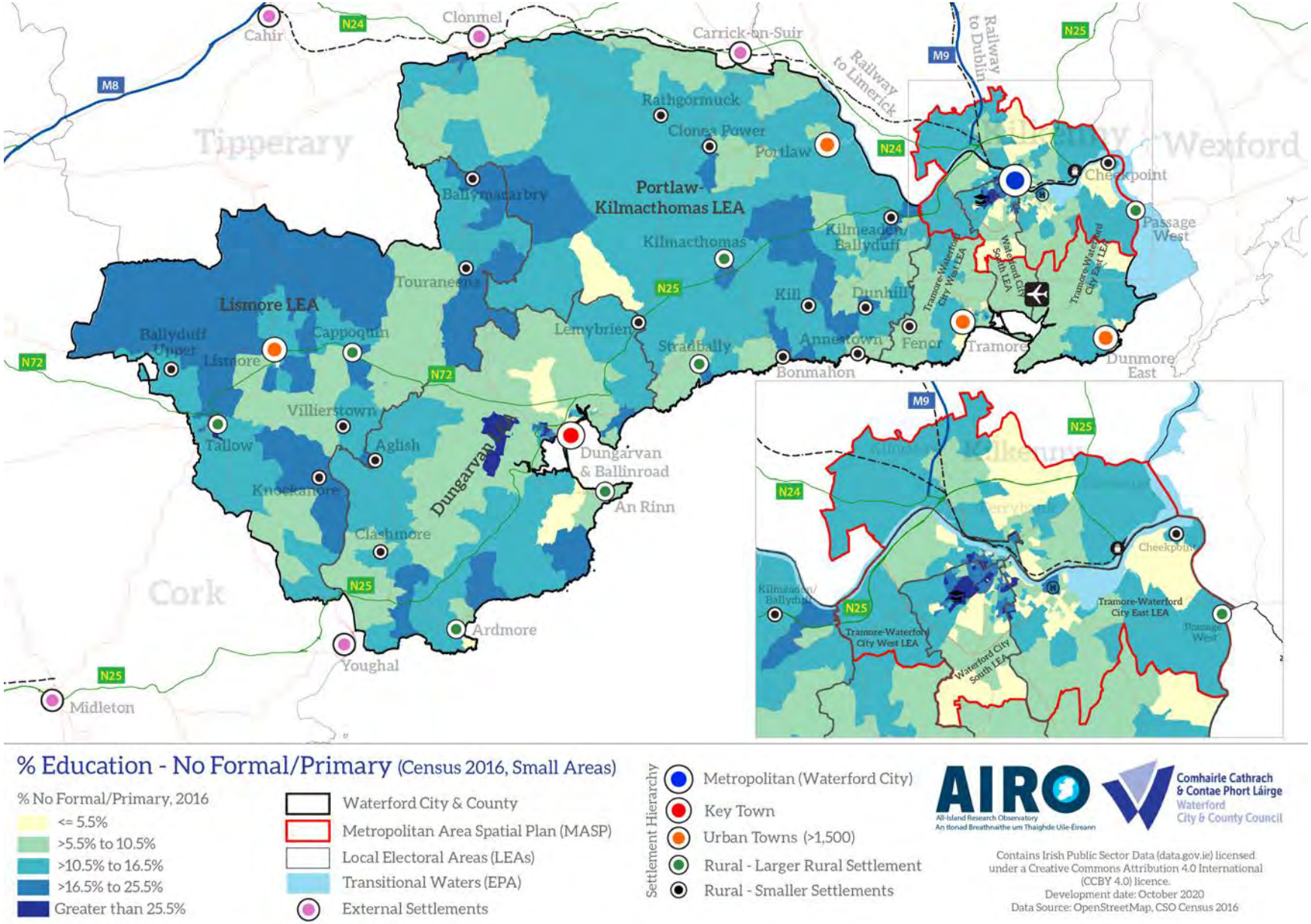
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population (5+ completed education) with No Formal/Primary Education residing in Waterford is 9,894 and accounts for 13% of the relevant population within the county - slightly higher than the State average (12.5%). This total is approximately 2.6% of the total population with No Formal/Primary Education residing within the State (386,498) and 7.5% residing in the SRA (131,114).
- The proportion the total population with No Formal/Primary Education residing in Waterford is 13% and is slightly higher than the Waterford MASP rate (12.4%). Across the MDs, the rate is broadly similar and ranges from 12.6% to 13.6%. Again, the rates in Urban (13.1% or 6,364) and Rural areas (13% or 3,530) are broadly comparable.
- Across the settlement hierarchy there is a lot of variation with rates ranging from 7.5% (Kilmeaden) to 21% (Kilmacthomas). Of all the settlements detailed in the hierarchy graphic (18), seven settlements have more than 15% the total population with No Formal/Primary Education: Kilmacthomas (21%), Cappoquin (20.3%), Tallow (18%), Aglish (16.8%), Kill (16.7%), Portlaw (16.7%) and Stradbally (15.2%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rate of No Formal/Primary Education are in the urban core of Waterford City in areas such as Larchville, Kingsmeadow and Poleberry where more than a third of the population have very low levels of education attainment.

Education: No Formal/Primary, 2016



Map 4.1: Education - No Formal/Primary, 2016 (Source: CSO)

Education: Technical/Apprenticeship/Certificate, 2016

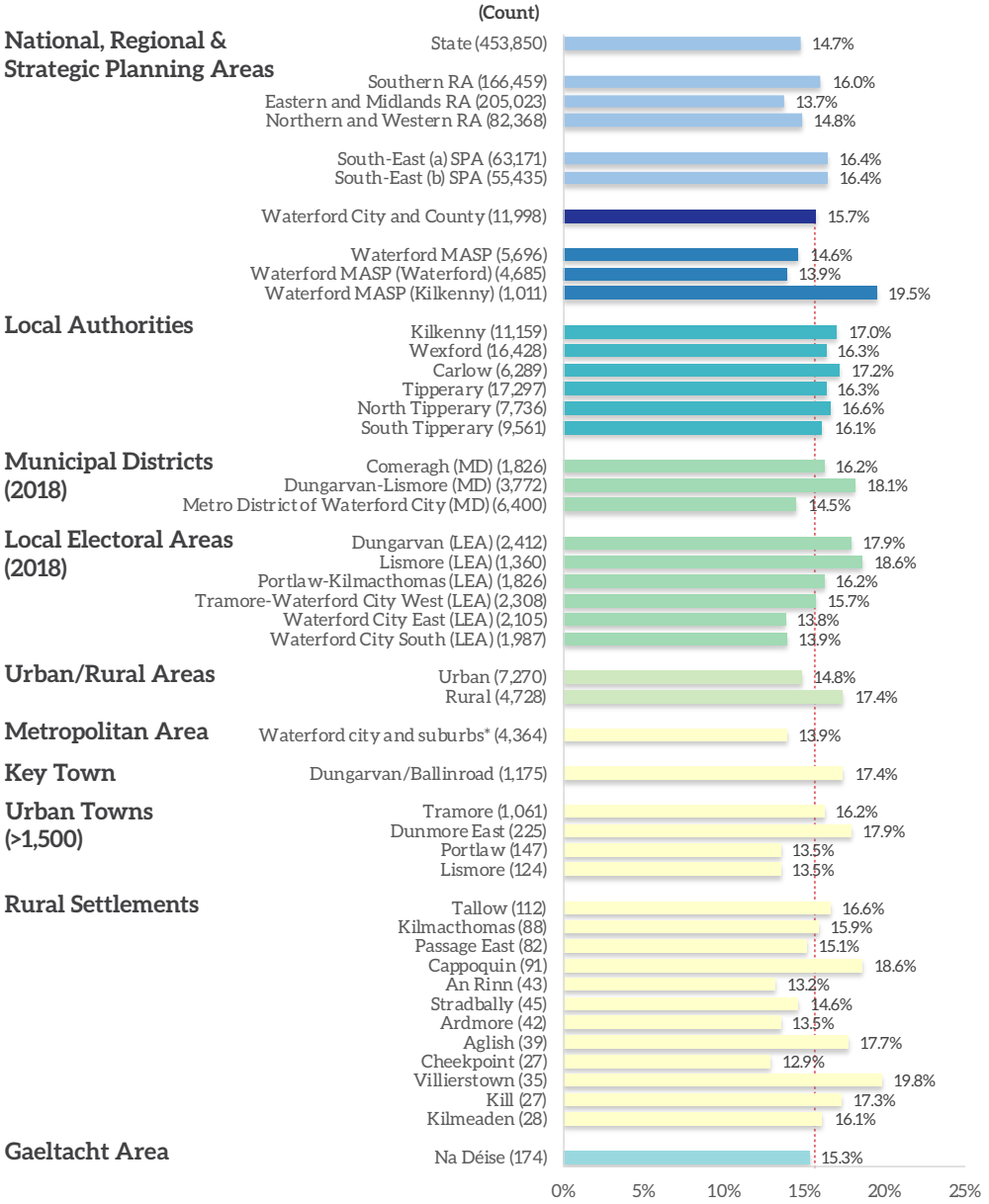


Figure 4.2: Education - Tech./Appren./Cert., 2016 (Source: CSO)

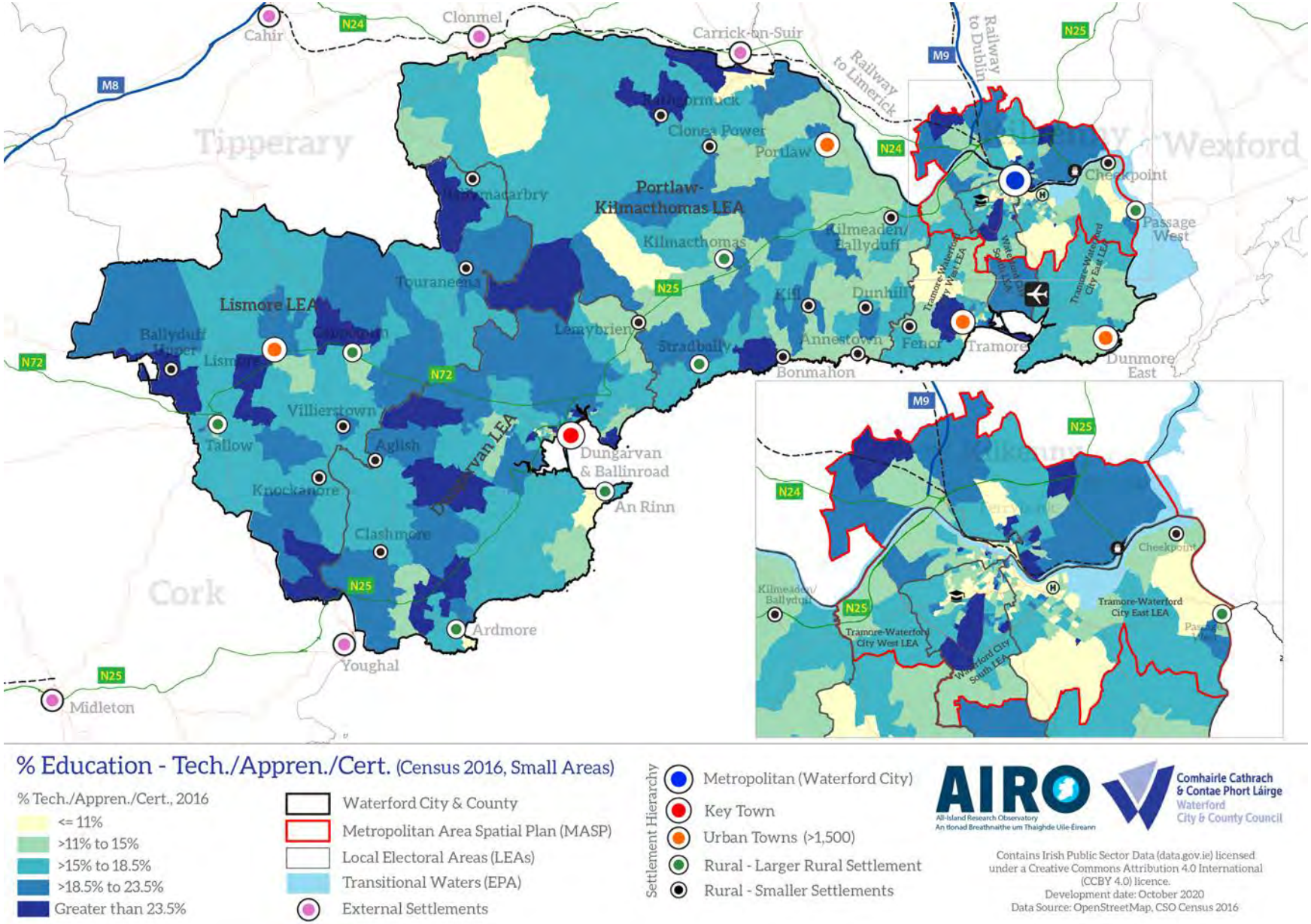
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total population (5+ completed education) with a Tech./Appren./Cert residing in Waterford is 11,998 and accounts for 15.7% of the relevant population within the county - slightly higher than the State average (14.7%). This total is approximately 2.6% of the total population with a Tech./Appren./Cert education residing within the State (453,850) and 7.2% residing in the SRA (166,459).
- The proportion the total population with a Tech./Appren./Cert residing in Waterford is 15.7% and is slightly higher than the Waterford MASP rate (14.6%) - the rate in the Kilkenny MASP area is much higher at 19.5%. Across the MDs there is some variation with the Waterford Metro MD recoding the lowest rate at 14.5%. Urban areas in Waterford recorded a rate of 14.8% (7,270) while Rural areas recorded a higher rate of 17.2% (4,728).
- Across the settlement hierarchy there is some variation although rates are primarily between 13.5% and 20%. Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than 17.5% of the total population with a Tech./Appren./Cert: Villierstown (19.8%), Cappoquin (18.6%), Dunmore East (17.9%) and Aglish (17.7%) The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rate of Tech./Appren./Cert Education are evident in the Kilkenny part of the MASP in areas such as Abbeylands, Christendom and Rockshire. High rates are also evident in Kilbarry and Ballytruckle in the south of the city.

Education: Technical/Apprenticeship/Certificate, 2016



Map 4.2: Education - Tech./Appren./Cert., 2016 (Source: CSO)

Education: 3rd Level, 2016

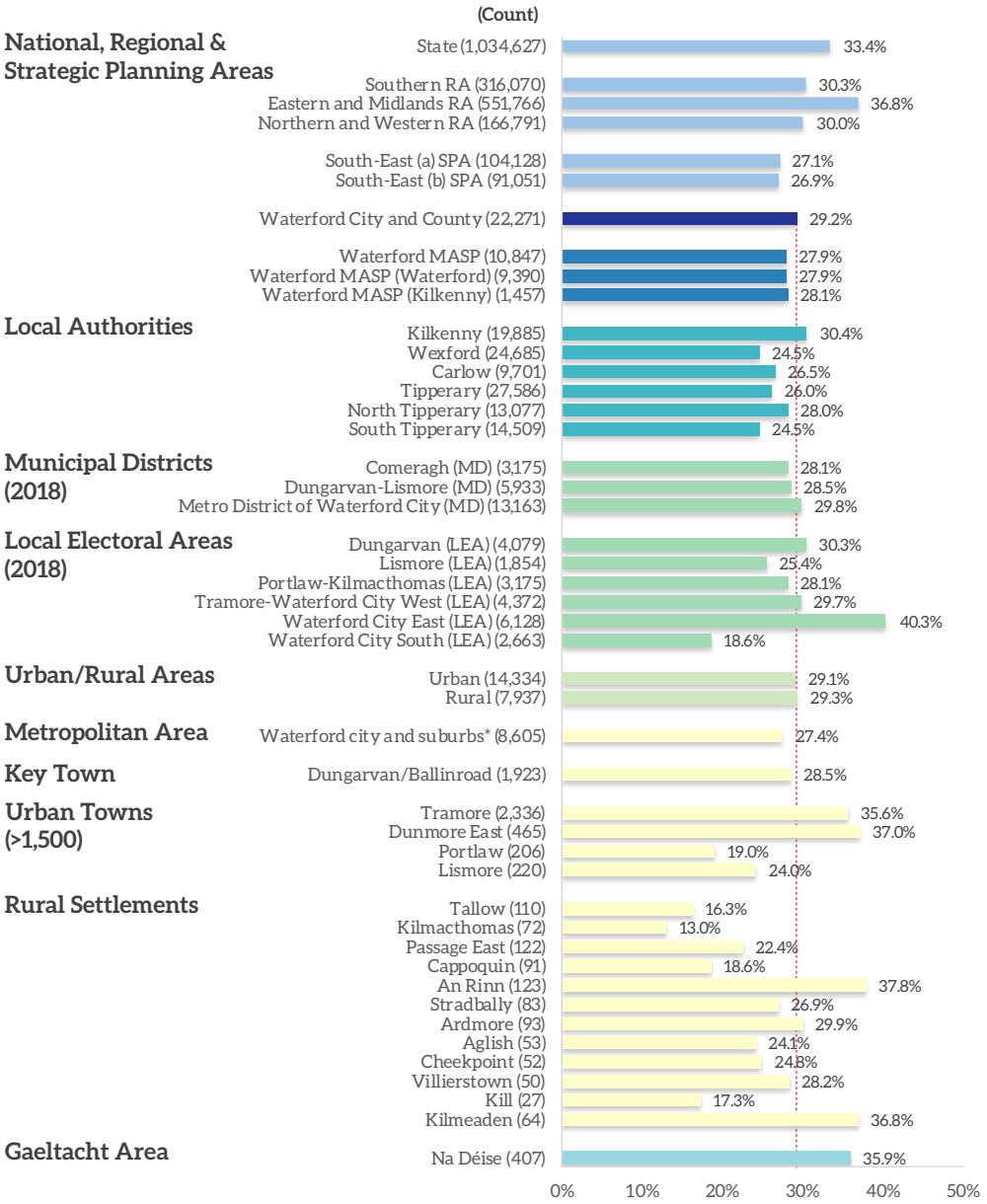


Figure 4.3: Education - All 3rd Level, 2016 (Source: CSO)

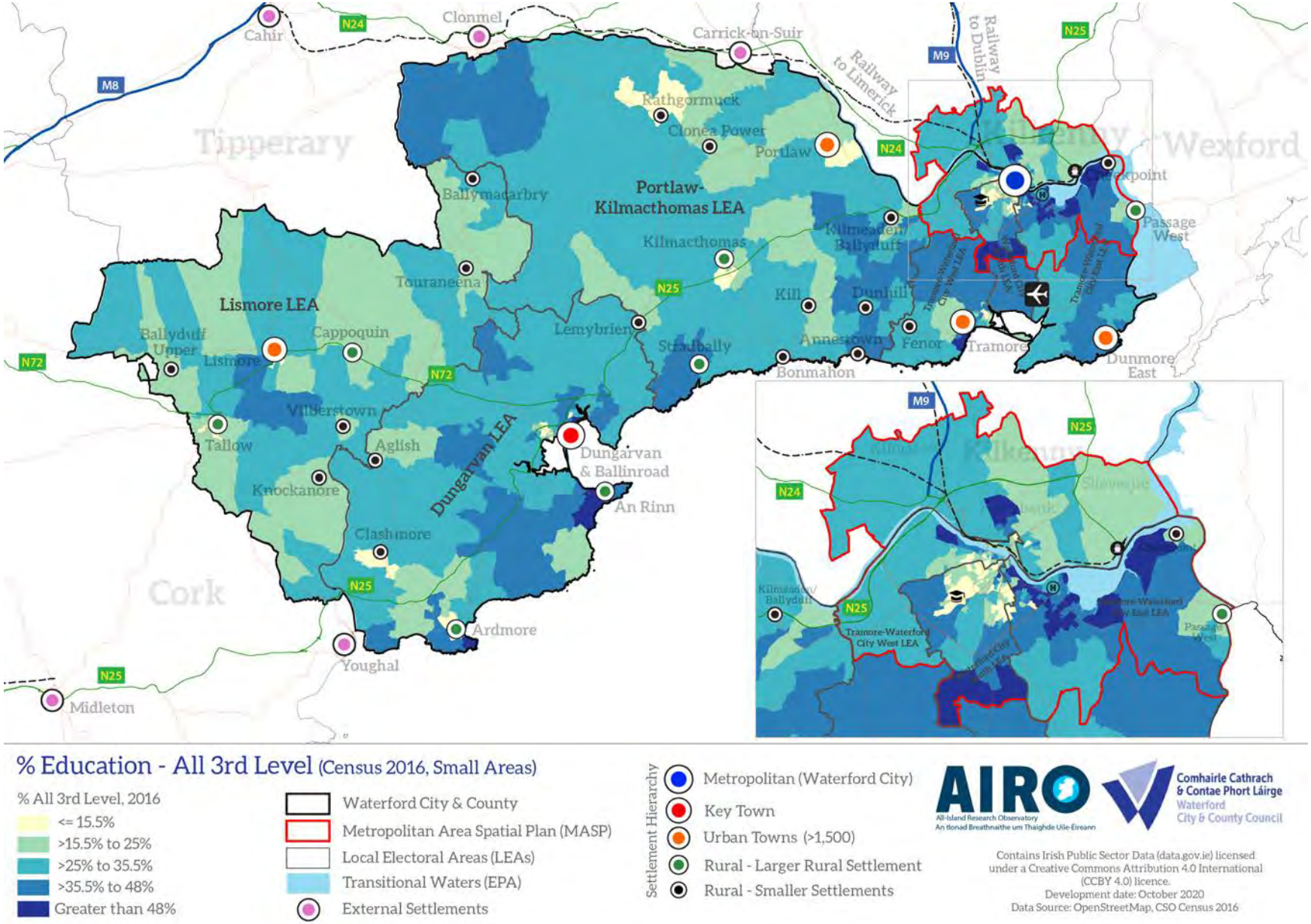
1 being the highest and 31 the lowest # or % of all local authorities

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

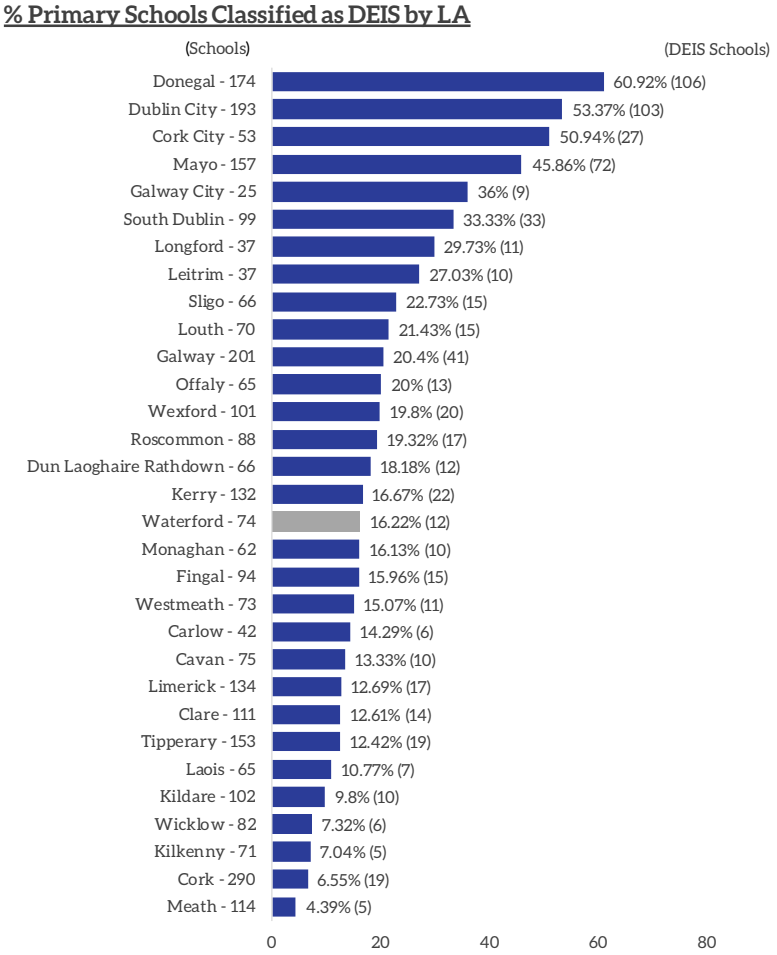
- According to Census 2016, the total population (5+ completed education) with a 3rd Level Education residing in Waterford is 22,271 and accounts for 29.2% of the relevant population within the county - lower than the State average (33.4%). This total is approximately 2.2% of the total population with an 3rd Level residing within the State (1,034,627) and 7% residing in the SRA (316,070).
- The proportion the total population with an 3rd Level Education residing in Waterford is 29.2% and is slightly higher than the Waterford MASP rate (27.9%). Across the MDs there is little variation with the Waterford Metro MD the highest at 29.8%. Urban and Rural areas in Waterford also recorded a similar rate at 29.1% (14,334) and 29.3% (7,937), respectively.
- Across the settlement hierarchy there is wide variation in rates with values ranging from 13% (Kilmacthomas) to 37.8% (An Rinn). Of all the settlements detailed in the hierarchy graphic (18), four settlements have more than a third of the total population with a 3rd Level Education: An Rinn (37.8%), Dunmore East (37%), Kilmeaden (36.8%) and Tramore (35.6%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rate of 3rd Level Education are evident in the south and south-east of Waterford City in areas such as Ballynakill, Grange Upper and Faithlegg.

Education: 3rd Level, 2016



Map 4.3: Education - All 3rd Level, 2016 (Source: CSO)

DEIS Primary Schools 2019/20



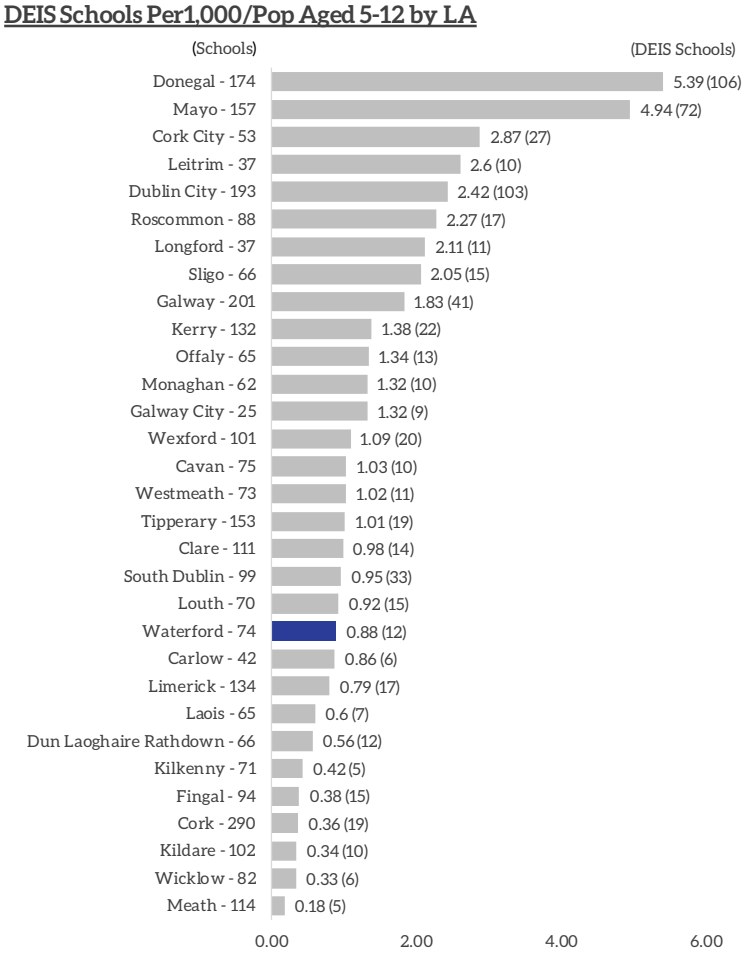


Figure 4.4: Rate of DEIS Schools per 1,000 Population Aged 5-12 and % Primary DEIS Schools (Source: DES)

- As the first graph (above) shows, Counties Donegal and Dublin City have the highest proportions of DEIS schools. These account for 60.9% of primary schools in Donegal and 53.4% in Dublin. Meath and Cork have the lowest proportions of primary schools included in DEIS. In total, Waterford has seventy four primary schools, of which twelve have DEIS status. This is a rate of 16.2% and the 15th lowest rate in the State.
- The second graph quantifies the number of DEIS primary schools per 1,000 of the population aged 5 to 12 years. Consequently, those counties with the most dispersed settlement patterns and highest proportions of smaller schools move further up the ranking. Donegal and Mayo remain at the top of the list while Meath is at the bottom. Waterford is positioned 11th lowest of all local authorities on this metric. This places Waterford just above Kilkenny and Carlow.

DEIS Post Primary Schools 2019/20

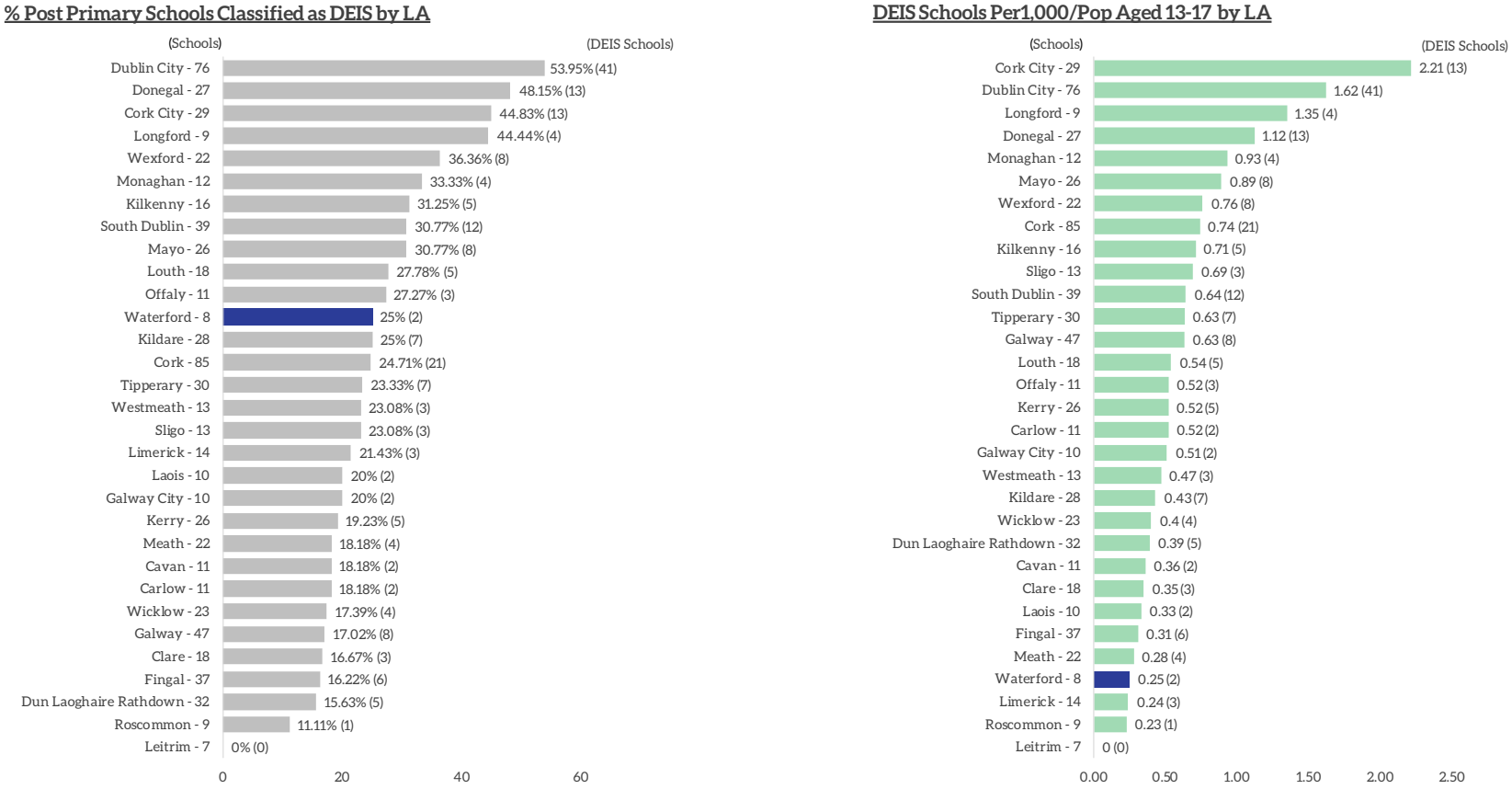


Figure 4.5: Rate of DEIS Schools per 1,000 Population Aged 13-17 and % Post-Primary DEIS Schools (Source: DES)

- Waterford has eight post-primary schools. Of these, two (25%) have DEIS status. As the graph (on the left) shows, Dublin City has the highest proportion of post-primary schools with DEIS status; more than half its schools (53%) are DEIS. Of the counties in the South-East Region, Waterford has the third highest proportion at 25% with Kilkenny (31.25%) and Wexford (36.4%) with higher rates. Interestingly, the proportional position of these three counties is very different for primary DEIS schools.
- When the number of DEIS post-primary schools is computed per 1,000 of the population aged 13 to 17 years, Waterford moves down the ranking – to fourth lowest position, out of thirty-one.
- It should be noted that county-level data on DEIS provision at second level are less precise as indicators of the investment per county, in respect of tackling educational disadvantage, than is the case at primary level. This is because the catchment areas of primary schools are generally localised and most do not cross county boundaries. Post-primary schools have significantly larger catchment areas, and have greater proportions of students who cross county boundaries.

Students in DEIS Primary and Post Primary Schools 2019/20

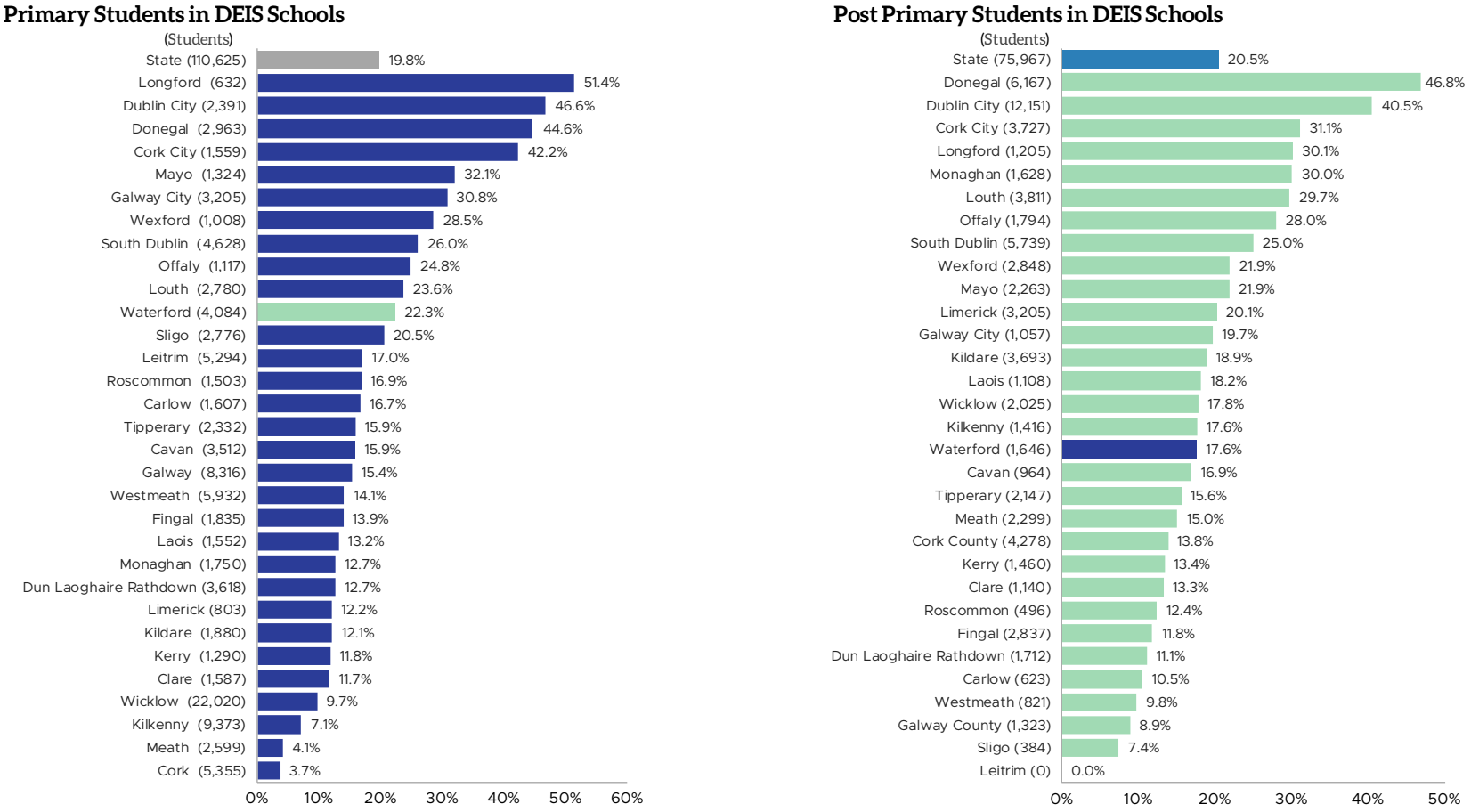


Figure 4.6: Primary and Post Primary DEIS Schools Students (Source: Pobal)

- Across the State, just under one-fifth (19.8%) of primary school students attend a DEIS school. Longford has the highest proportion at just under 51.5%. This is followed by Dublin City (46.6%) and Donegal (44.6%). As the graph shows, Waterford has the eleventh highest proportion of students attending DEIS schools. Of the total primary school population attending primary schools within the county (n=18,358), 22.3% (n=4,094) attends a DEIS school.
- Across the State, just over one-fifth (20.5%) of post-primary school students attend a DEIS school. Donegal has the highest proportion at just under 47%. This is followed by Dublin City (40.5%) and Cork City (31.1%). As the graph shows, Waterford has the fourteenth-smallest proportion of students attending DEIS schools. Of the total post-primary school population attending post-primary schools within the county (n=9,352), 17.6% (n=1,646) attends a DEIS school.

Childcare Costs, 2018/19

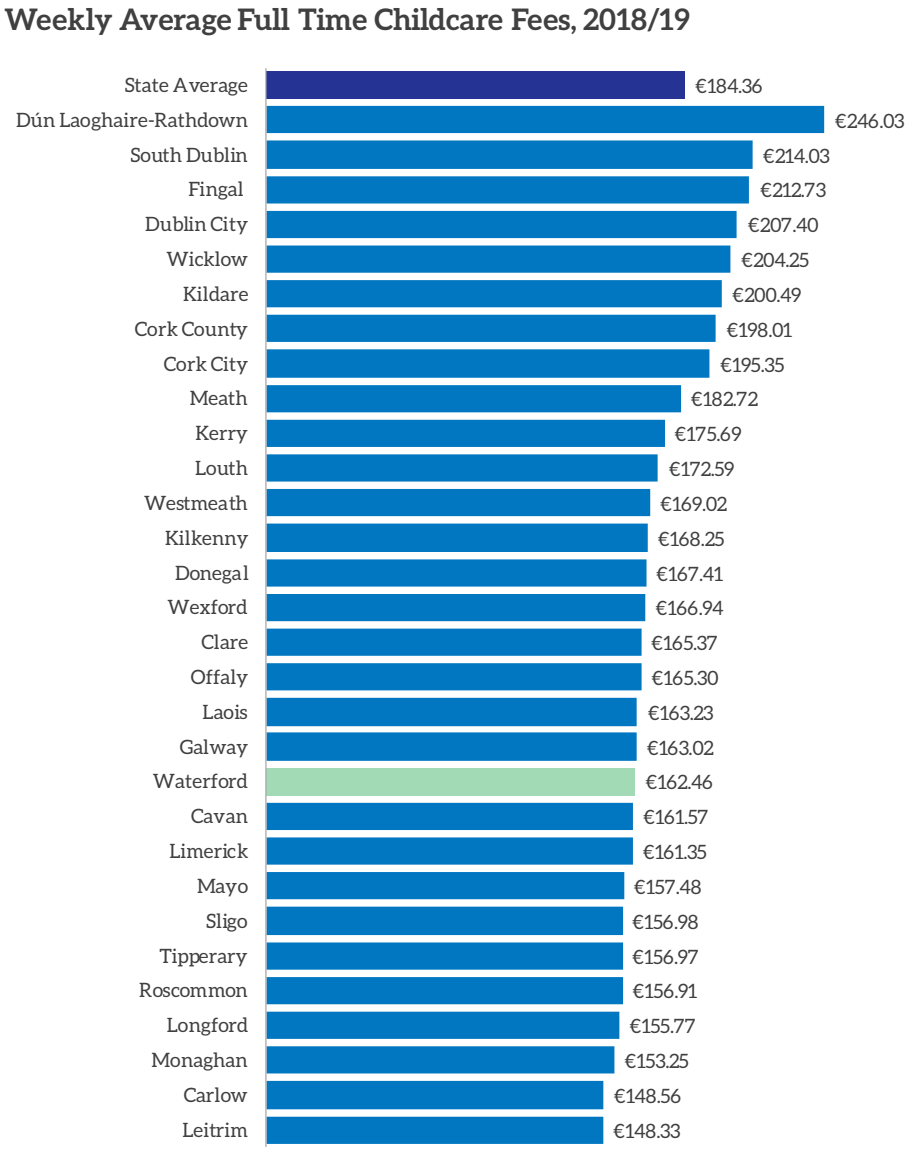


Figure 4.7: Childcare Costs, 2018/19 (Source: Pobal)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- The average cost, per child, of full-time childcare in County Waterford is the eleventh lowest among the thirty-one local authority areas in Ireland. The average weekly cost across all facilities in County Waterford both community and private, is €162.46. This compares with a State average of €184.36; a difference of €21.52.
- As this graph shows, Waterford compares favourably with all other counties in the South-East Region. Both Tipperary and Carlow have lower weekly costs with both Wexford and Kilkenny more than €4 more expensive a week.
- Waterford's average price is considerably below that paid by parents and guardians in Ireland's main cities and in the Greater Dublin Area. As the graph here indicates, the counties in Dublin commuter belt areas, namely Kildare and Wicklow, record average weekly childcare fees that are closer to those charged in Dublin.

Childcare Places by Capacity 2018/19

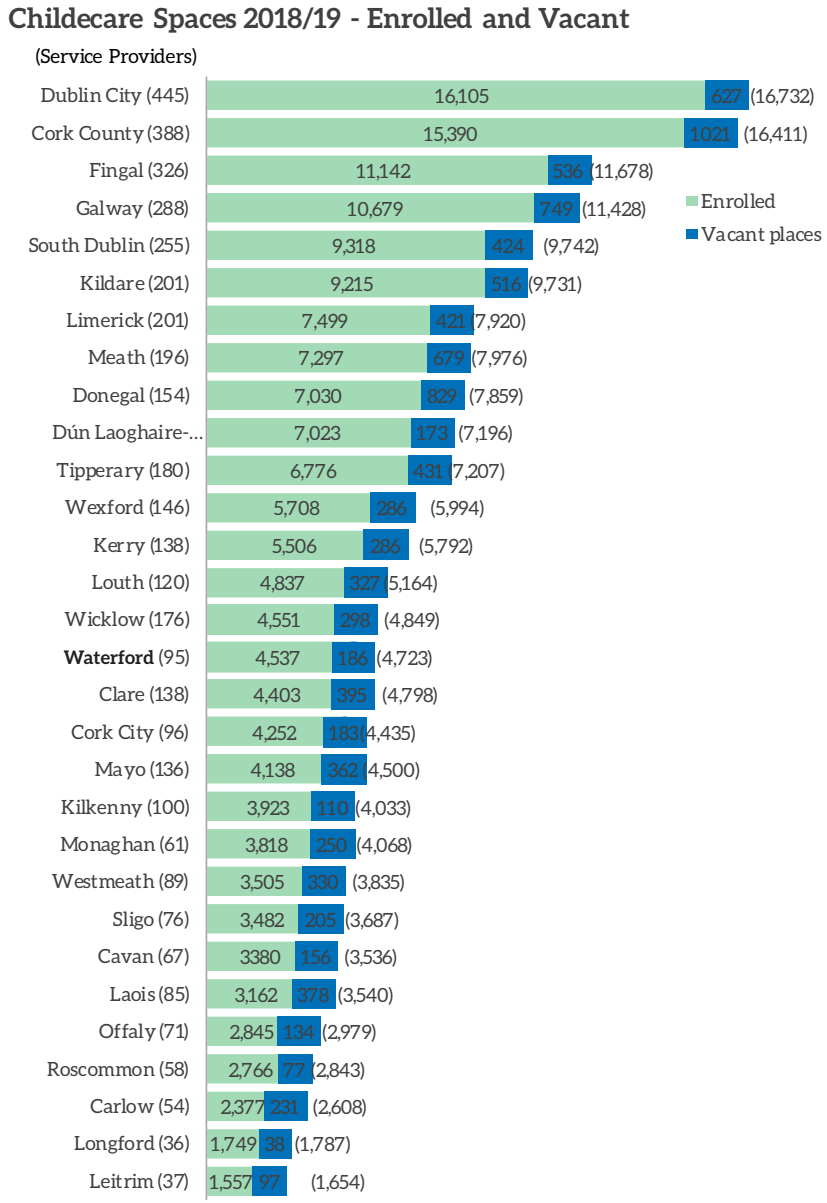


Figure 4.8: Childcare Places by Capacity (Source: Pobal)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- Among Ireland's thirty-one local authority areas, Waterford has a total of 4,723 childcare places, consisting of 4,537 enrolled and 186 vacant childcare places. Waterford total provision of childcare places is ranks it fifteenth lowest.

Primary School Class Size, 2019/20

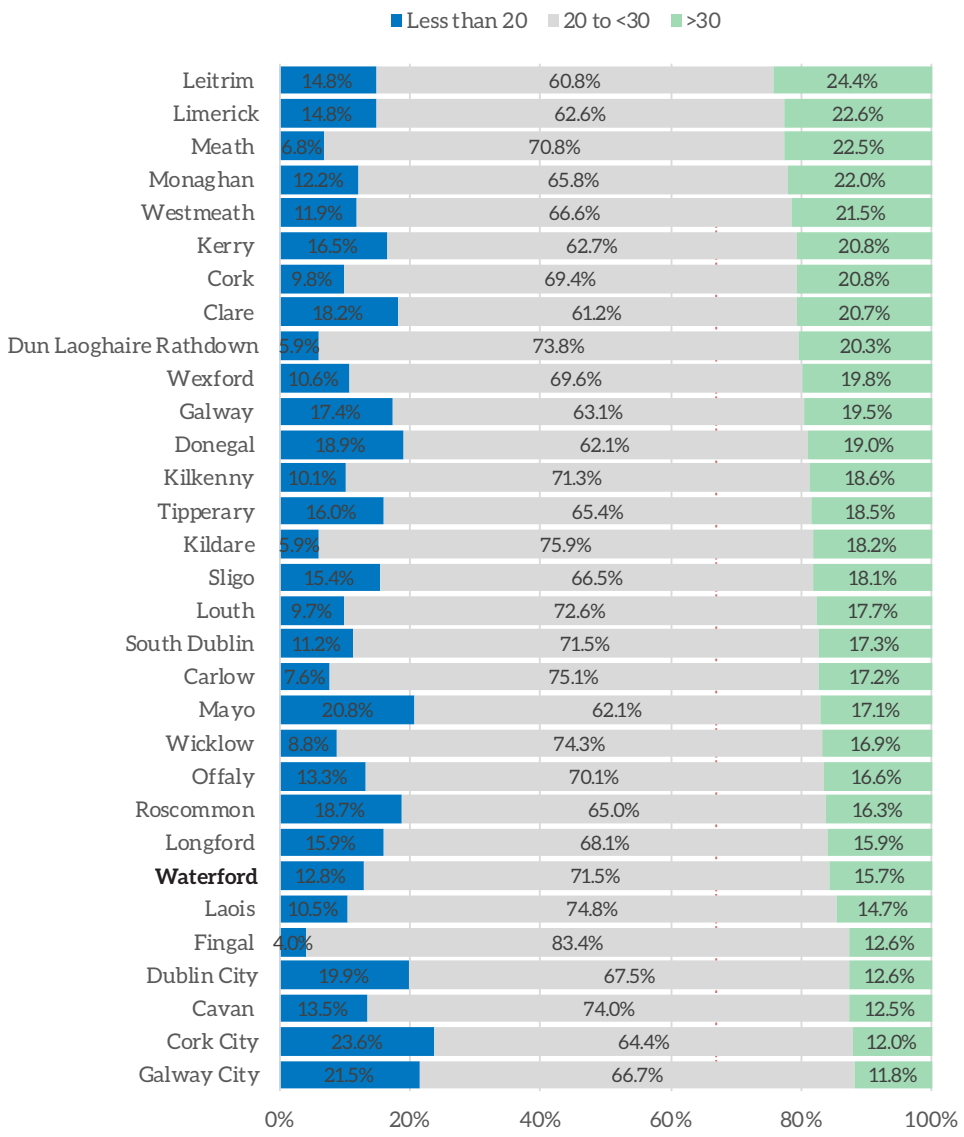


Figure 4.9: Primary School class size (Source: DES)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

As this graph shows, just over 15.7% of primary school pupils in Waterford are in classes that have over thirty children. This is the seventh lowest of the thirty-one local authority areas in the State. Leitrim has the highest proportion of children in classes with over thirty pupils (24.4%) while Galway City has the lowest (11.8%).

Primary and Post Primary School Absenteeism, 2016/17 (proportion absent for >20 days).

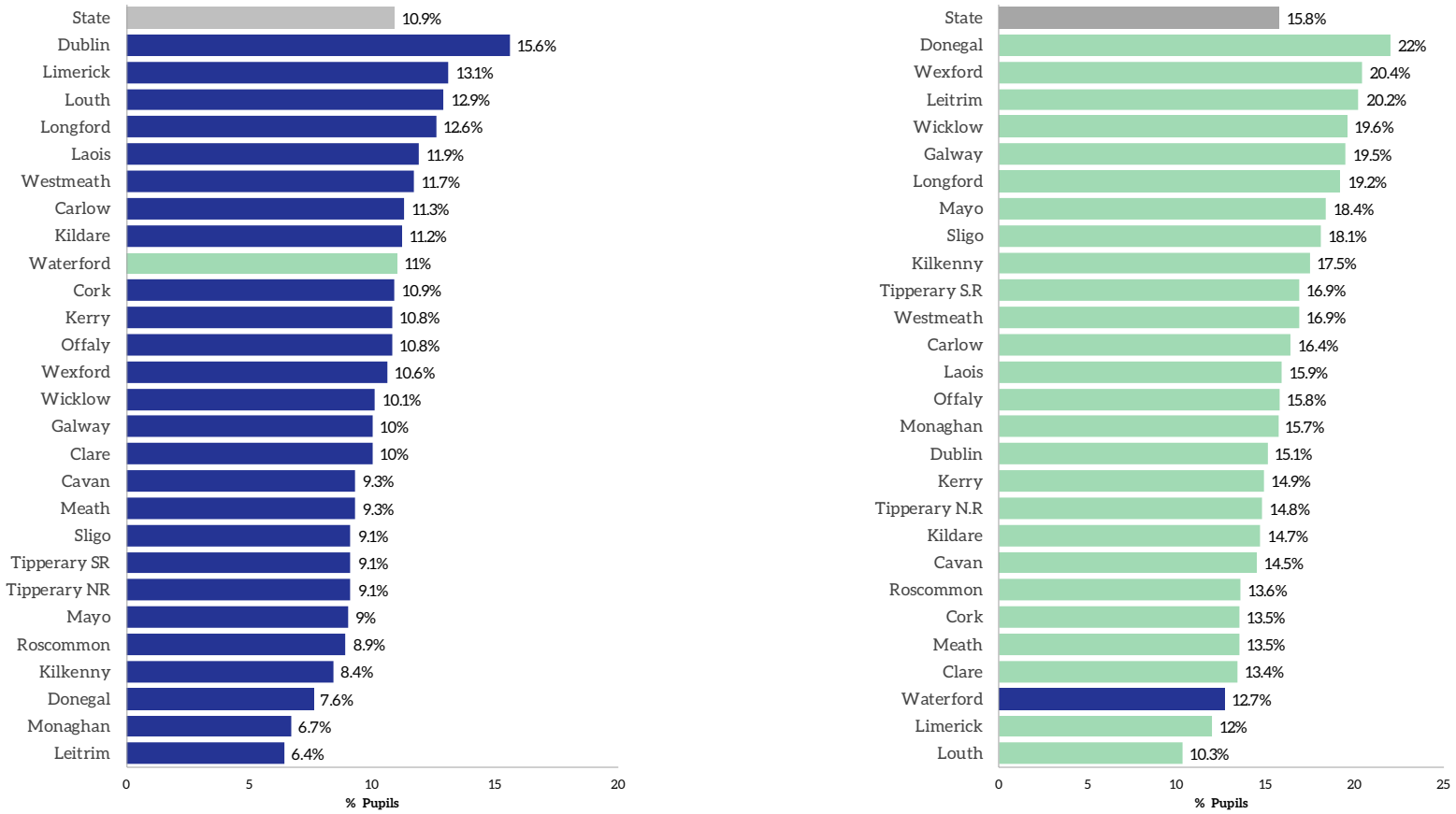


Figure 4.10: Primary (Left) and Post Primary (Right) School Absenteeism 2016/17 (Source: Education Welfare Service in Tusla)

- Across Ireland's thirty-one local authority areas, Waterford has the ninth-highest level of absenteeism among primary school pupils. While there are various matrices for the calculation of absenteeism, the metric presented here is that of percentage of pupils absent for 20+ days during the school year. The Waterford figure stands at 11%. This is almost the same as the State average (10.9%). The highest rates in the State are Dublin (15.6%) and Limerick (13.1%). In contrast, the lowest rates are in Leitrim (6.4%), Monaghan (6.7%) and Donegal (7.6%).
- In Ireland, the mean level of absenteeism among post-primary school pupils is 15.8%. This refers to the proportion of pupils who are absent for at least twenty days. The highest rates are in Counties Donegal, Wexford and Leitrim, all of which record values in excess of 20%. The rate in Waterford is 12.7%, which is three percentage points below the State average and the third lowest rate in the State.

Primary School Pupil: Teacher Ratio, 2015/16

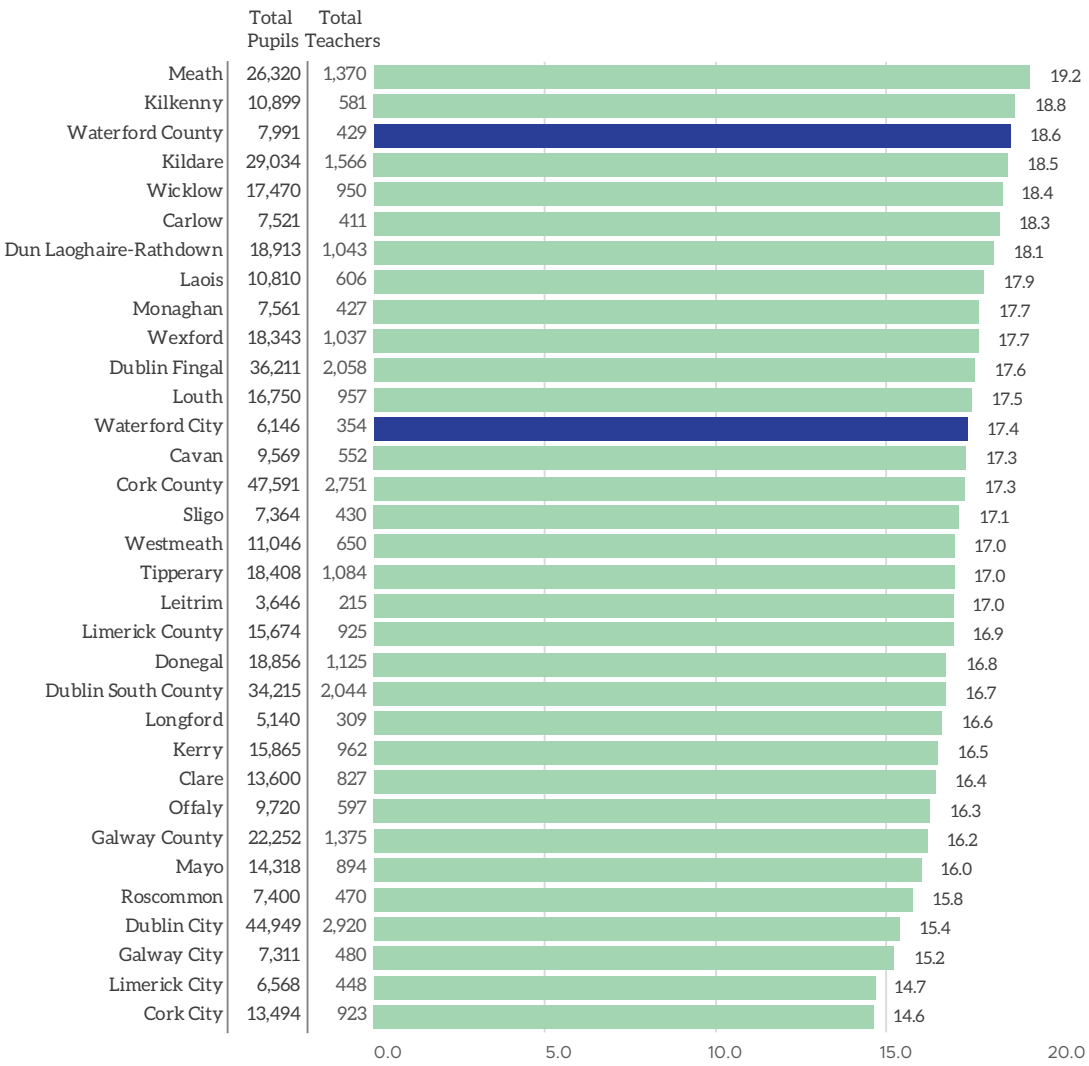


Figure 4.11: Primary School Pupil: Teacher Ratio (Source: DES)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- Waterford County has the third highest pupil teacher ratio across Ireland's thirty-three local authority areas with a total of 18.6 pupils per teacher. Waterford City recorded a lower ratio at 17.4 pupils per teacher. The South-East records high ratio's throughout with Waterford City, Wexford, Carlow, Waterford County and Kilkenny in the top 13 local authorities in the State. Lower values in other cities (Dublin, Galway, Limerick and Cork) are associated with proportionately more schools having DEIS status and the presence of more specialists schools e.g., those catering for children with special needs, and those run by minority religious communities such as Jews and Muslims.

Leaving Cert Progression - Feeder Schools Profile, January 2020

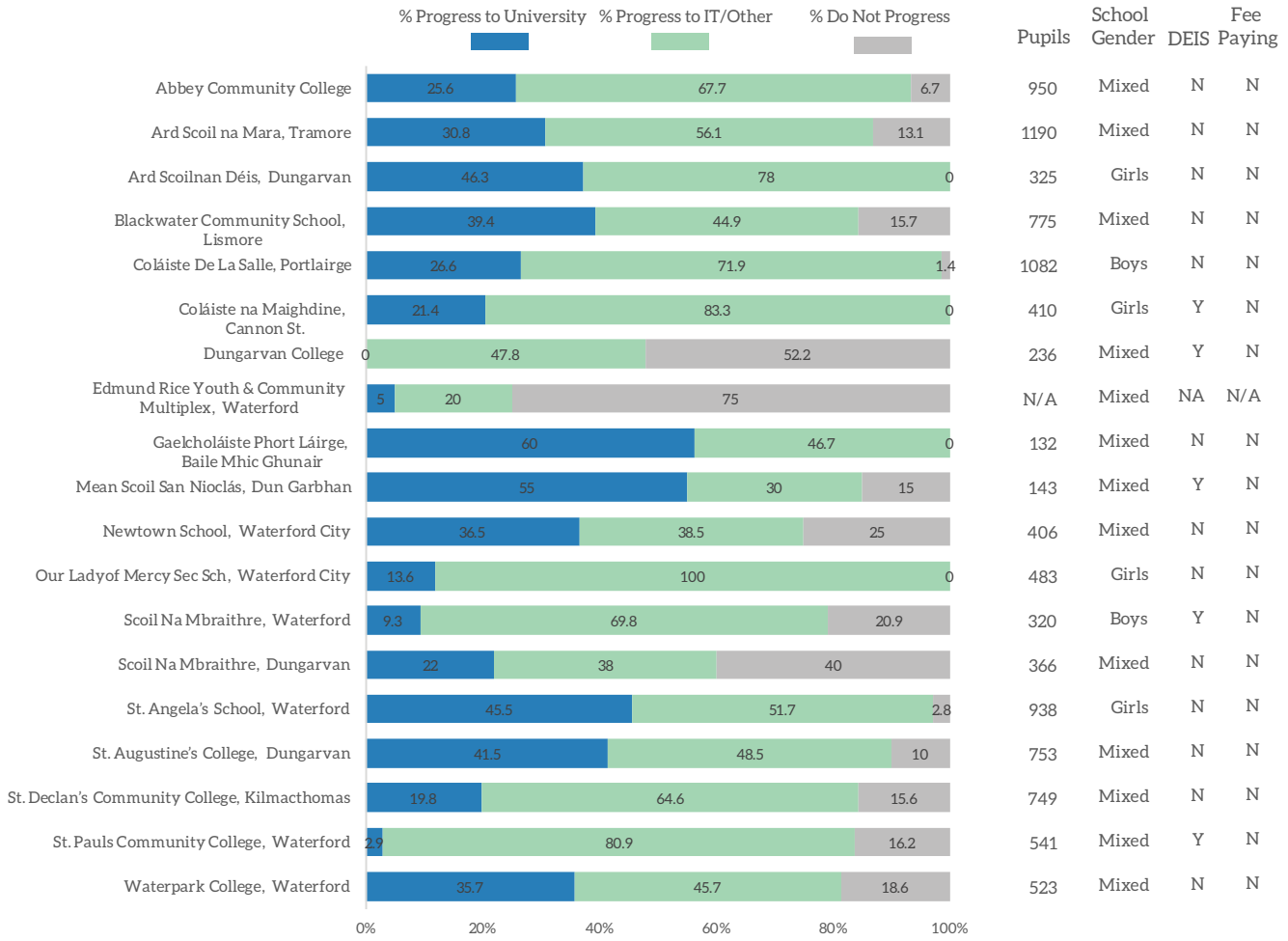


Figure 4.12: Leaving Cert Progression - Feeder Schools, 2020 (Source: Irish Times)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- An analysis of results from the Irish Times Feeder Schools (2019-20) provides details on progression rates (those who sit the Leaving Cert and progress to 3rd level) from all secondary schools to 3rd level institutions.
- The cumulative progression statistics in respect of students (n=1,536) from Waterford's second-level schools in 2020 were as follows: 29.4% to university (3rd lowest in the State) and 58.7% to IoTs (highest rate in the State).
- According to the 2019/20 Feeder School results, Waterford recorded an overall progression rate of 88.1% (to Uni and IoT) and was the 3rd highest rate in the country. In comparison, rates across the South-East were as follows: Wexford (76.9%), Kilkenny (87.9%), Tipperary (79.3%) and Carlow (77.9%).
- Gaelcholáiste Phort Lairge (Ballygunner) has the highest progression rate (60%) to university. Mean Scoil San Nichlas (Dungarvan) also recorded a very high progression rate to University at 55%. Other schools with progression rate to University in excess of 40% are St. Angela's in Waterford (45.5%) and St. Augustine's College in Dungarvan (41.5%).

Destination of Waterford Third Level Students by Location and HEI Type, 2017

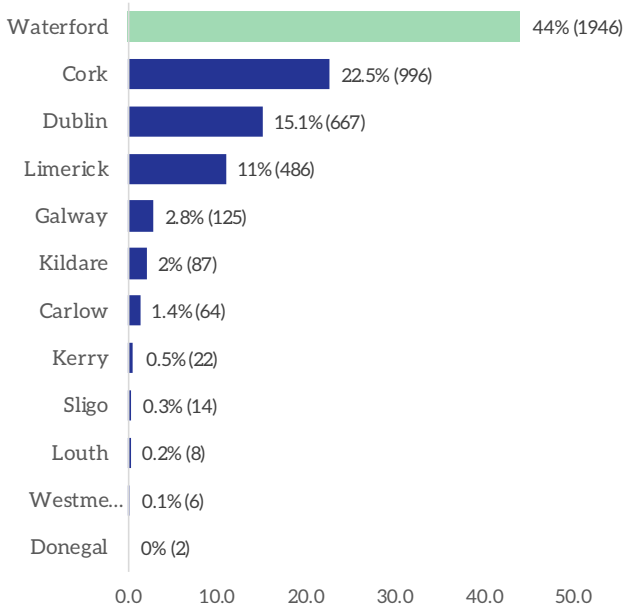
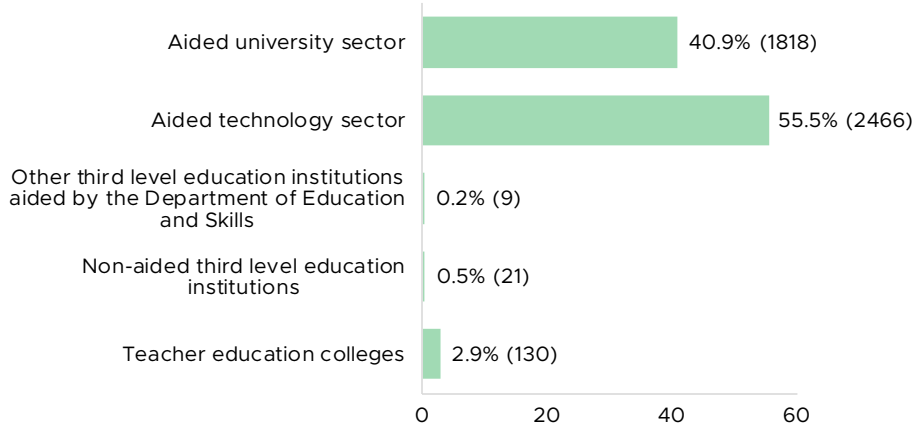


Figure 4.13: Destination of Carlow Third Level Students, 2017 (Source: HEA)

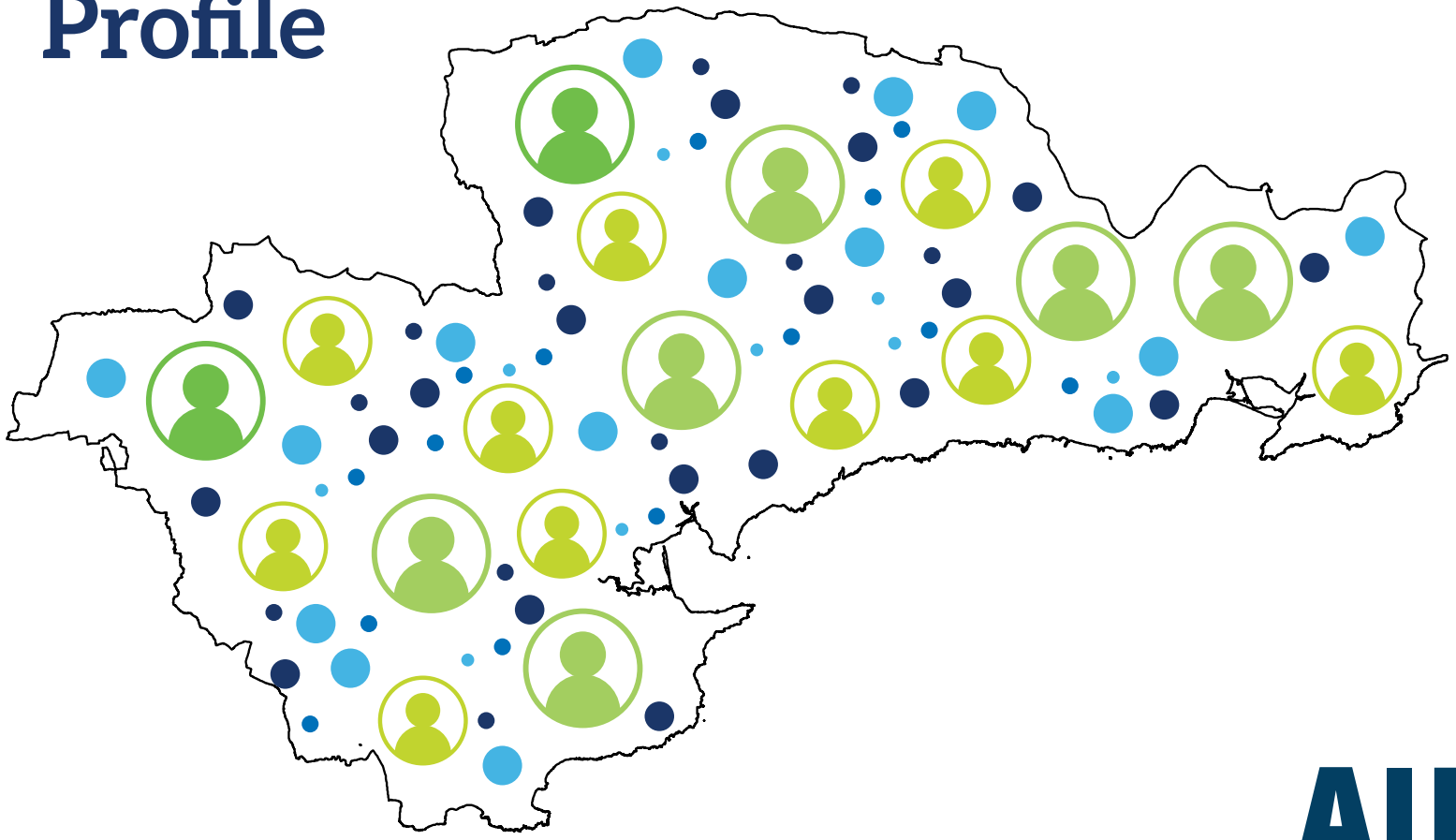


- Of those students who progress from Waterford's second-level schools to third-level institutions, more than two-fifths (44% or 1,946) remain within the county. These mainly attend Waterford Institute of Technology (WIT).
- Just under one-quarter (22.5% or 996) of those who progress from Waterford's second-level schools go to Cork (UCC, CIT) to attend third-level institutes there. Thus, Cork is the second-most popular destination for third-level students from Waterford. Dublin and Limerick are also popular destinations and recorded rates of 15.1% (667) and 11% (486), respectively.
- Over half (55.5%) of students from Waterford progress to institutions that are classified as being in the 'aided technology sector'. This encompasses the Institutes of Technology. A further 40.9% of students progress to publicly supported universities. A total of 2.9% progress to teacher education colleges and other higher-education institutes (HEIs).

Figure 4.13: Destination of Carlow Third Level Students by Type of Institution, 2017 (Source: HEA)

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 5:
Economy and Income Profile



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Labour Force Participation Rate (PES), 2016

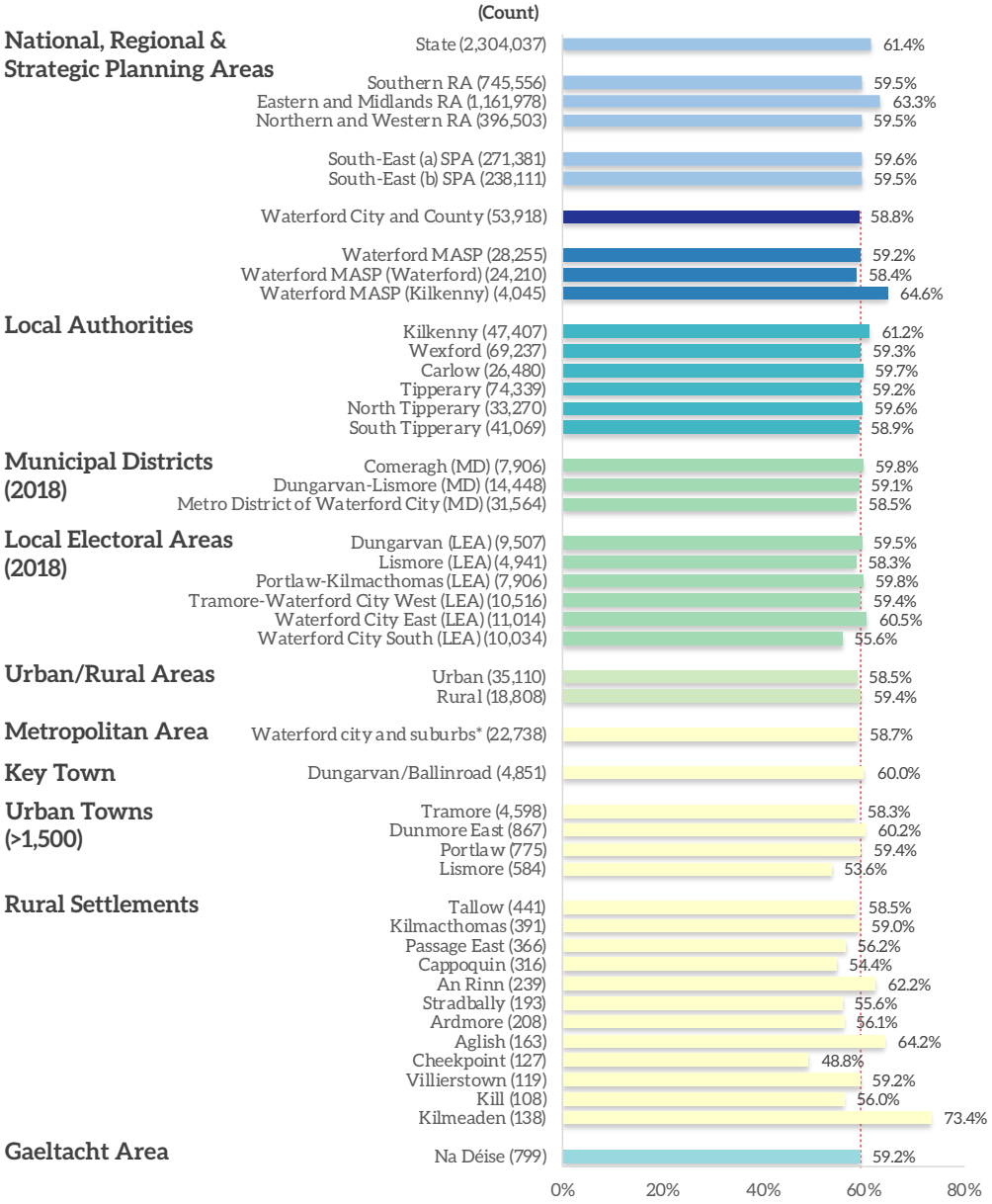


Figure 5.1: Labour Force Participation Rate (PES), 2016 (Source: CSO)

19th Highest # in State

23rd Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

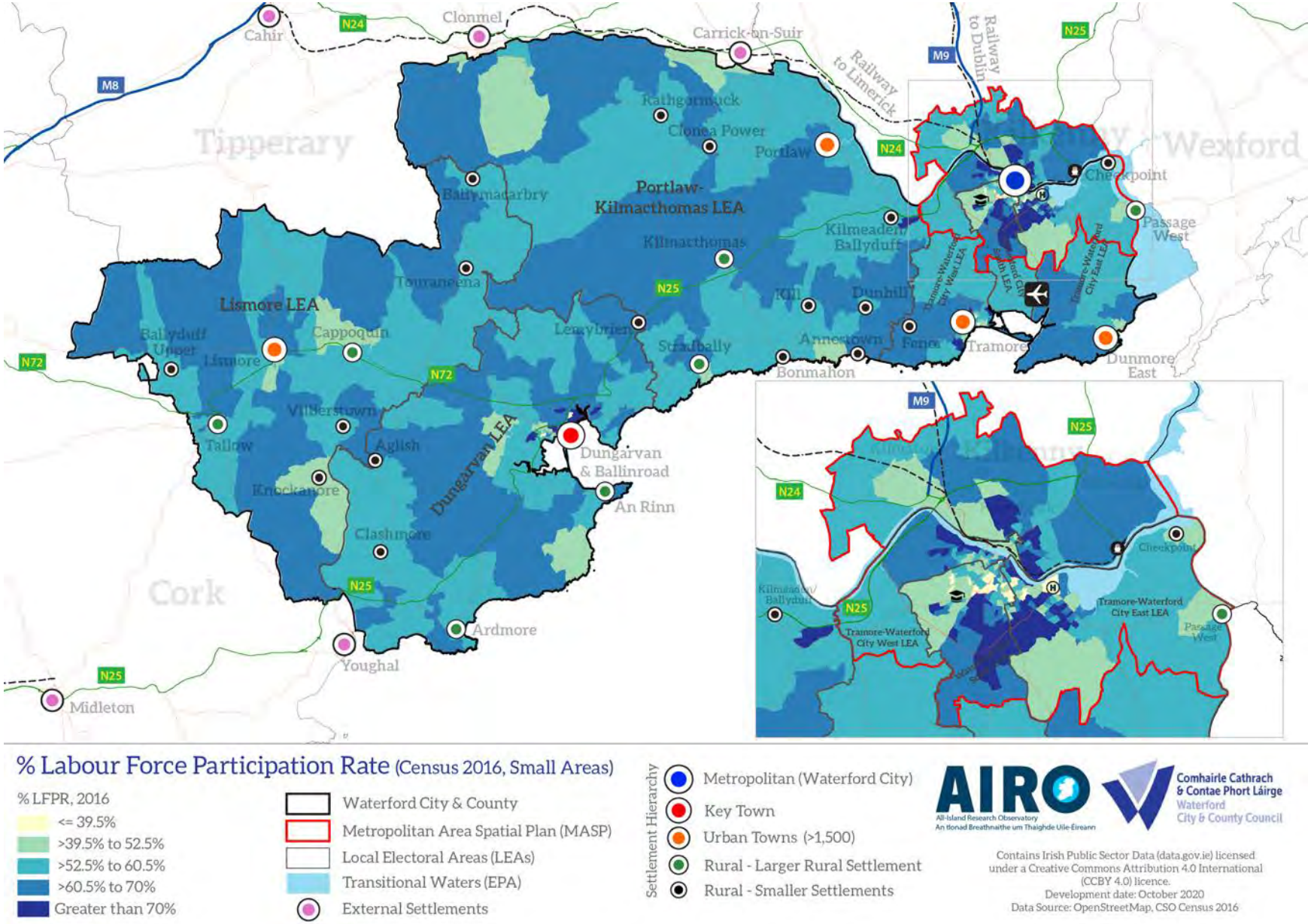
+0.8% or + 404

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total Labour Force in residing in Waterford is 53,918 and accounts for 58.8% of the total population (15+) within the county, lower than the State average (61.4%). This represents 2.3% of the total Labour Force residing within the State (2,304,037) and 7.3% residing in the SRA (745,556).
- The Labour Force Participation Rate in Waterford is 58.8% and is slightly lower than the Waterford MASP rate (59.2%) - the rate in the Kilkenny part of the MASP is higher at 64.6%. Across the MDs there is little variation with rates ranging from 58.5% in Waterford Metro to 59.8% in the Comeragh MD. Urban areas in Waterford recorded a rate of 58.7% (35,110) while Rural areas recorded a slightly higher rate of 59% (18,808).
- Across the settlement hierarchy there is some variation with rates ranging from 48.8% (Cheekpoint) to 73.4% (Kilmeaden). Of all the settlements detailed in the hierarchy graphic (18), three settlements have a Labour Force Participation Rate less than 60%: Kilmeaden (73.4%), Aglish (64.2%), An Rinn (62.2%) and Dunmore East (60.2%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rates of Labour Force Participation are evident in south and south west of Waterford City (>70%). High rates are also evident in areas in the Kilkenny area of the MASP.

Labour Force Participation Rate (PES), 2016



Map 5.1: Labour Force Participation Rate (PES), 2016 (Source: CSO)

Labour Force at Work Rate (PES), 2016

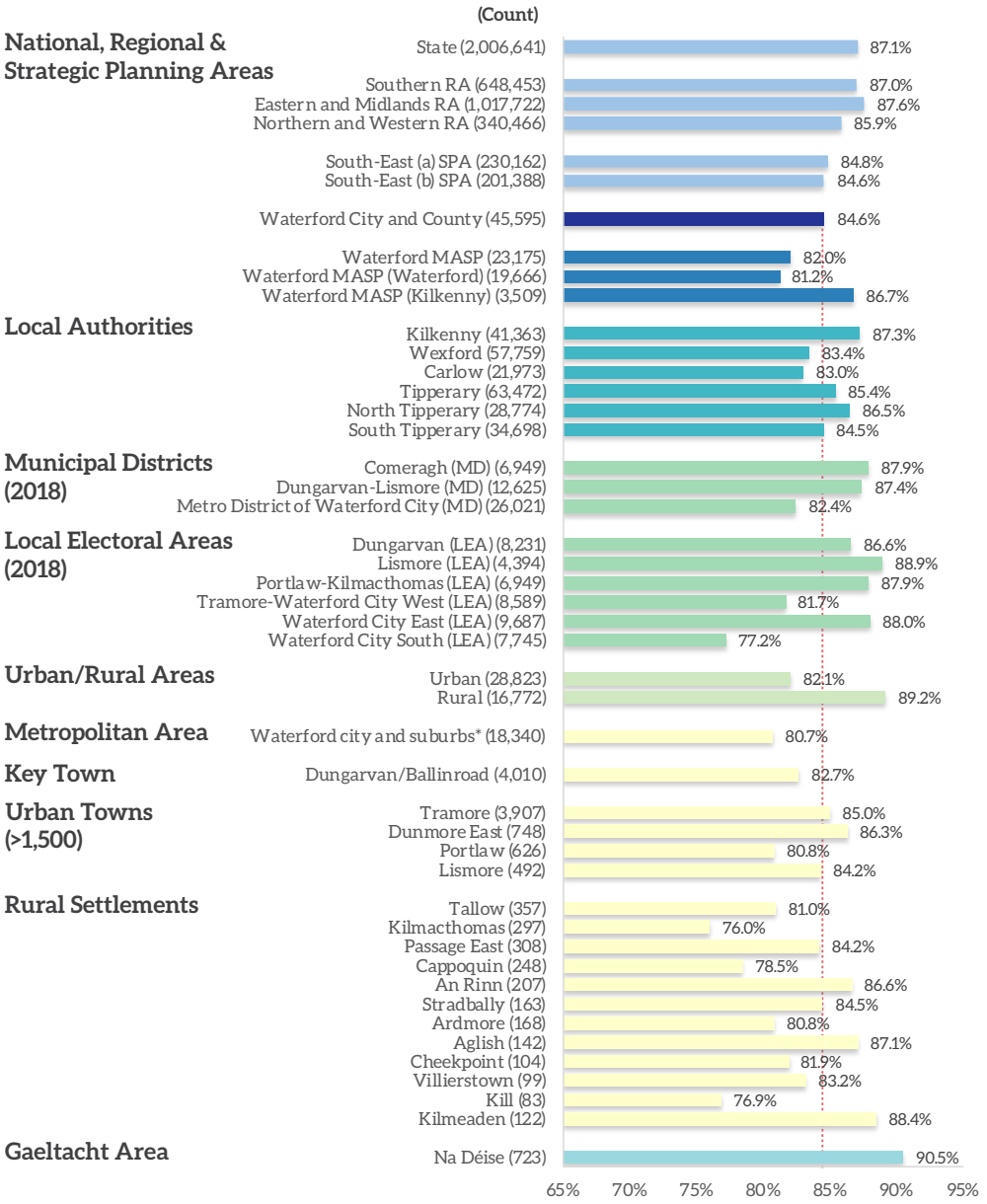


Figure 5.2: Labour Force at Work Rate (PES), 2016 (Source: CSO)

19th Highest # in State

24th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

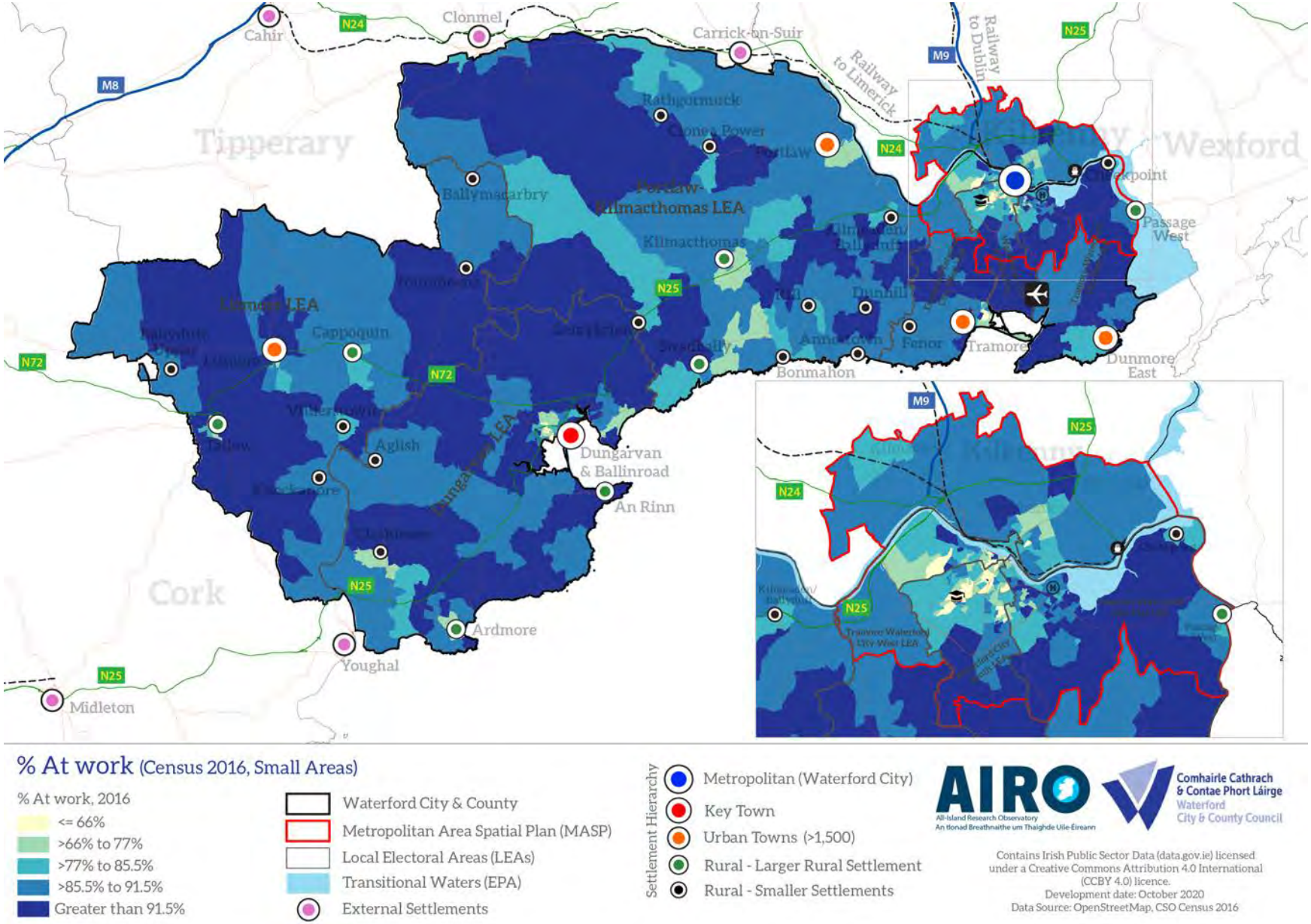
+8.7% or + 3,653

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total Labour Force at Work in residing in Waterford is 45,595 and accounts for 84.6% of the total population within the county - lower than the State average (87.1%). The accounts for 2.3% of the Labour Force at Work residing within the State (2,006,641) and 7% residing in the SRA (648,453).
- The percentage of the Labour Force at Work in Waterford is 84.6% and is higher than the Waterford MASP rate (82%) - the Kilkenny MASP area is higher at 86.7%. Across the MDs the Waterford Metro MD (82.4%) has the lowest rate with Comeragh and Dungarvan-Lismore at approximately 87%. Urban areas in Waterford recorded a rate of 82.1% (28,823) while Rural areas recorded a much higher rate of 89.2% (16,772).
- Across the hierarchy all settlements have more than three-quarters of the labour force At Work. Of all the settlements detailed in the hierarchy graphic (18), four settlements have a more than 85% of the workforce At Work: Kilmeaden (88.4%), Aglish (87.1%), An Rinn (86.6%) and Dunmore East (86.3%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rates of the labour force At Work are in the peripheral parts and generally outside the city core. Within the city the highest rates are in the south and south-west in areas such as Grange Upper, Ballinakill and Farranshoneen.

Labour Force at Work Rate (PES), 2016



Map 5.2: Labour Force at Work Rate (PES), 2016 (Source: CSO)

Labour Force Unemployed (PES), 2016

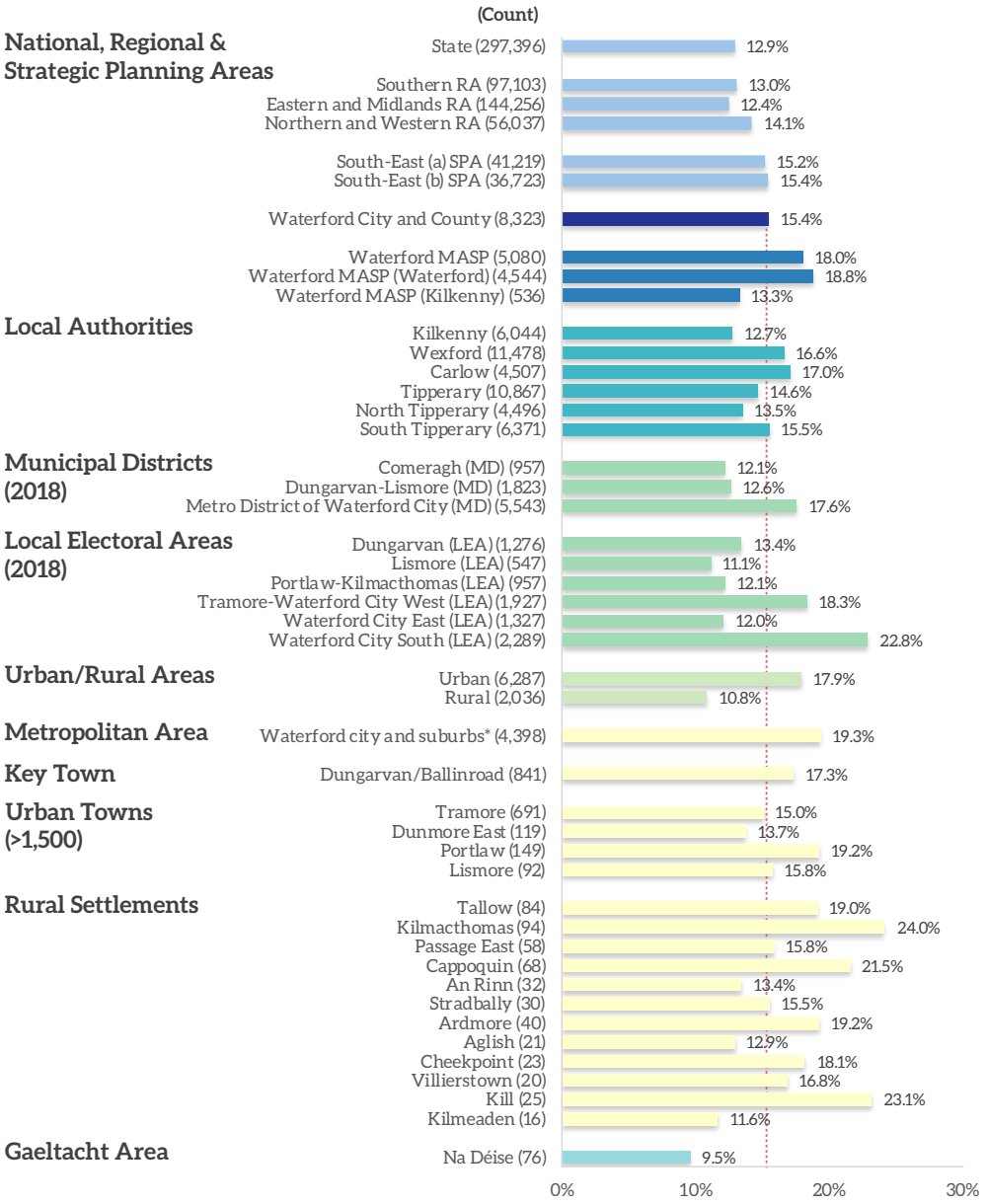


Figure 5.3: Labour Force Unemployed (PES), 2016 (Source: CSO)

17th Highest # in State

8th Highest % in State

1 being the highest and 31 the lowest # or % of all local authorities

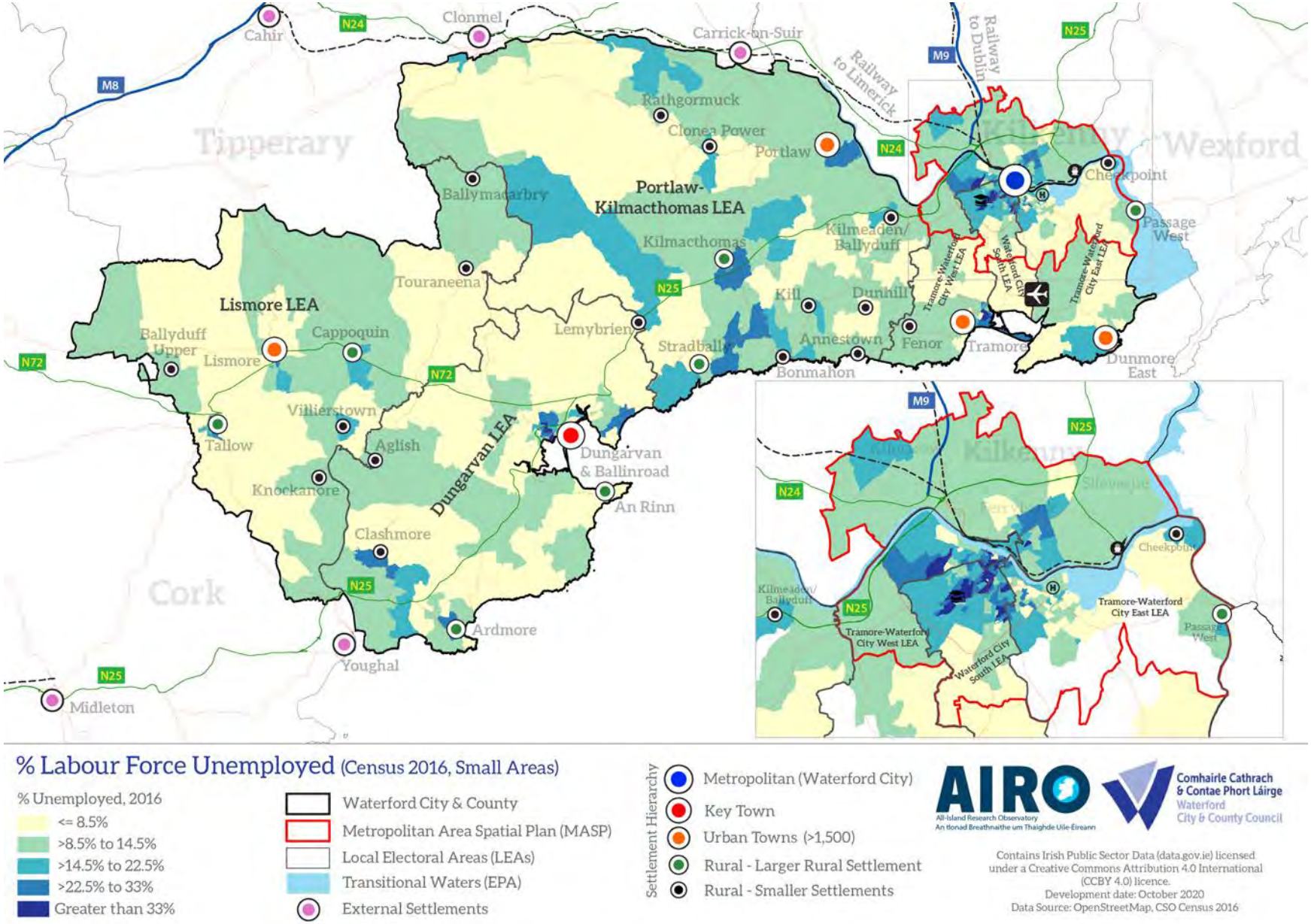
-28.1% or -3,249

Change since 2011

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

- According to Census 2016, the total number of the Labour Force classed as Unemployed in Waterford is 8,323 and accounts for 15.4% of the labour force within the county - higher than the State average (12.9%). This accounts for 2.8% of those unemployed in the State (297,396) and 8.6% of those unemployed in the SRA (97,103).
- The Labour Force Unemployment Rate in Waterford is 15.4% and is significantly lower than the Waterford MASP rate (18%) - the rate in the Kilkenny part of the MASP is much lower at 13.3%. Across the MDs the Waterford Metro MD (17.6%) has a much higher rate than Waterford Metro Comeragh MD (12.1%) and Dungarvan-Lismore (12.6%). Urban areas in Waterford recorded a rate of 18.3% (6,287) and much higher than in Rural areas 10.8% (2,036).
- Across the settlement hierarchy there is a lot of variation with rates ranging from 11.6% (Kilmeaden) to 24% (Kilmacthomas). Of all the settlements detailed in the hierarchy graphic (18), three settlements have Labour Force Unemployment Rate of more than 20%: Kilmacthomas (24%), Kill (23.1%) and Cappoquin (21.5%). The map on the opposite page details the distribution at the SA level across Waterford.
- Within the MASP area the highest rates of the labour force Unemployed are in central areas of Waterford City in areas such as Larchville, Kingsmeadow and Poleberry.

Labour Force Unemployed (PES), 2016



Map 5.3: Labour Force Unemployed (PES), 2016 (Source: CSO)

Labour Force Survey - Unemployment Rate, Q3 2020

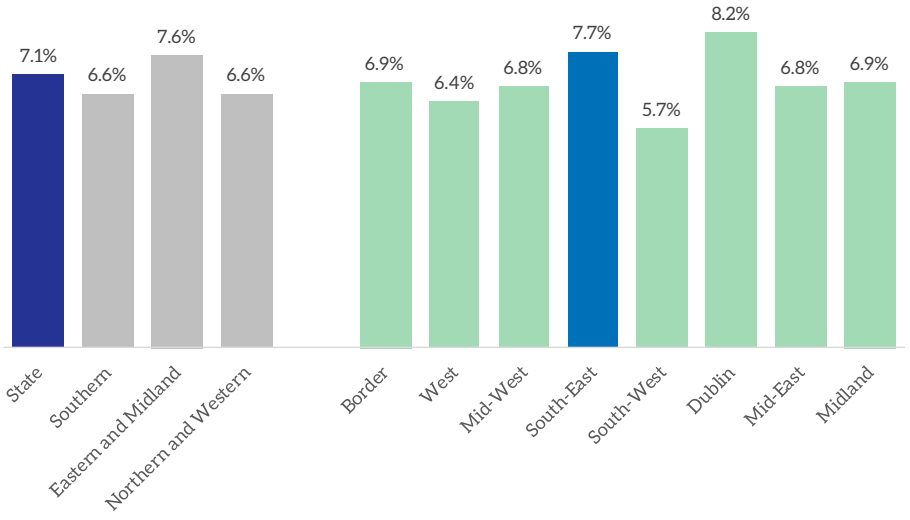


Figure 5.4: Labour Force Survey Regional Unemployment Rate, Q3 2020 (Source: CSO)

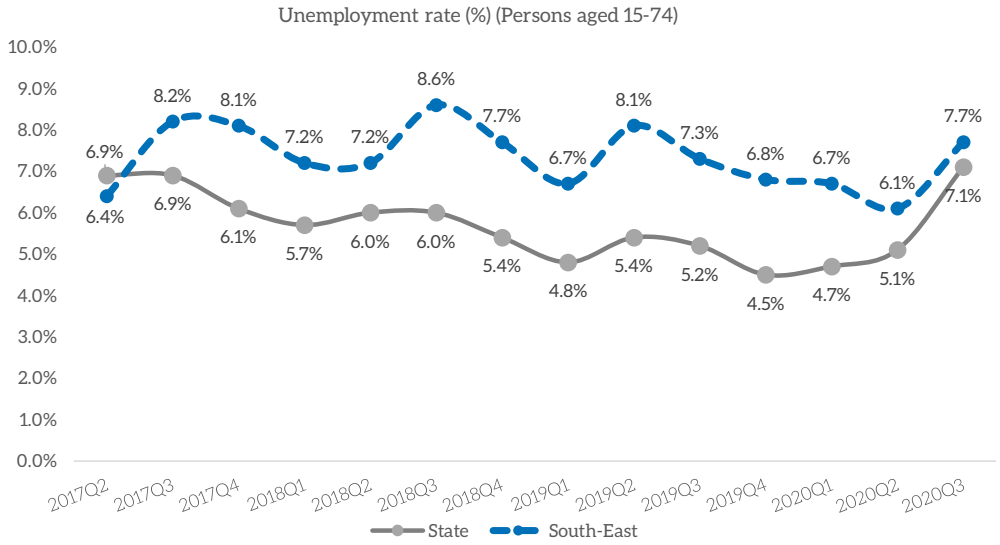


Figure 5.5: Labour Force Survey Regional Unemployment Rate, Q2 2017 to Q3 2020 (Source: CSO)

- Regional level unemployment data in Ireland is available using the International Labour Office (ILO) definition and is based on data collected in the Labour Force Survey, which is called the Quarterly National Household Survey (QNHS). The QHNS provides a more regular record of unemployment data than does the Census of Population. While they use different matrices, both sources show that the South-East has the highest level of unemployment across Ireland's eight NUTS III regions. The figures for Q3 2020 show a State unemployment level of 7.1% and a level of 7.7% in the South-East Region.

- With the exception of Q2 2017, the unemployment rate in the South-East Region has, over the past two years, been consistently above the State average. However, over the course of 2019 and 2020, the gap between the State and the South-East Region has closed.

Live Register Recipients - Unemployment Rate, December 2020

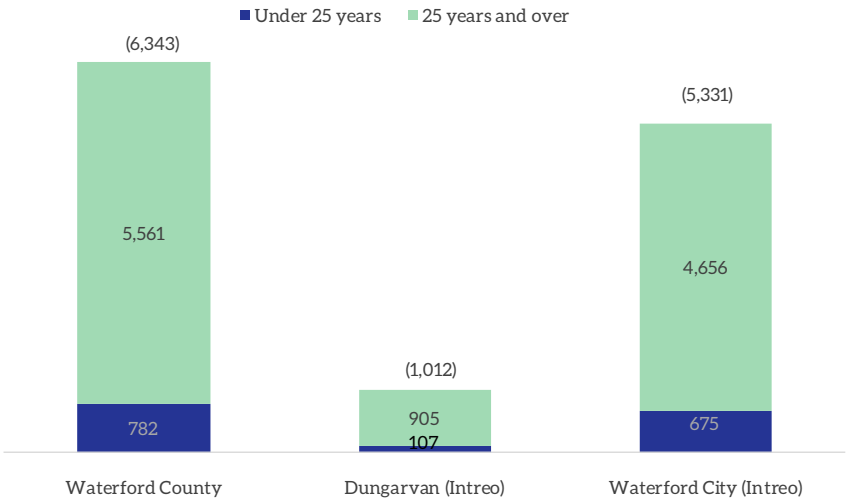


Figure 5.6: Live Register Recipients Waterford, December 2020 (Source: CSO)

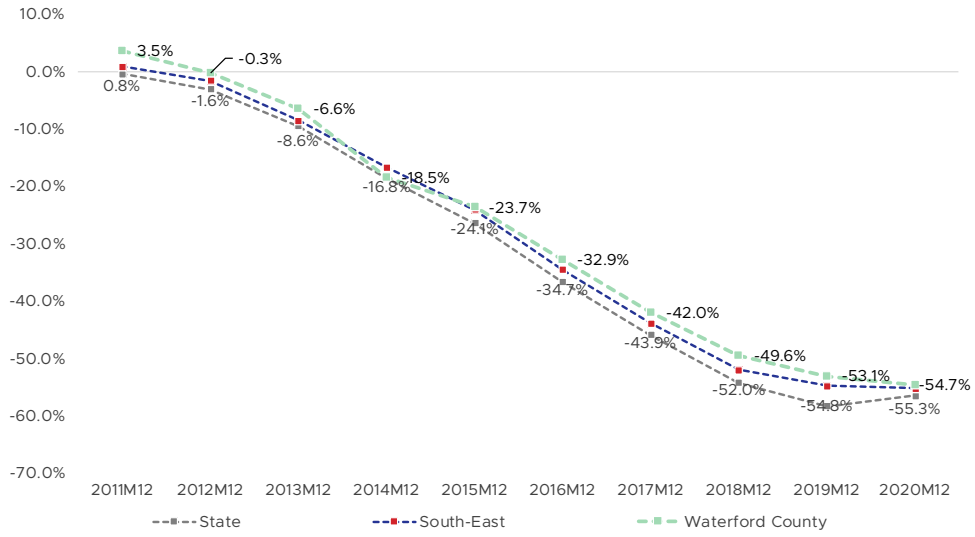


Figure 5.7: Relative Change in Live Register Recipients - Wicklow, December 2012 to December 2020 (Source: CSO)

- An alternative method of analysing the spatial patterns of unemployment is to use the unadjusted Live Register figures. The Live Register is not specifically designed to measure unemployment as it includes part-time, seasonal and casual workers. It does, however, allow an analysis of employment trends at both a county level and also at social welfare office (SWO) level (Dungarvan and Waterford City.
- Data in respect of the three social welfare offices in County Waterford reveal variations as regards the age profile of those on the live register. Those signing-on at the Waterford City office have a younger age profile than those signing on at the office in Dungarvan; youth unemployed, as defined as those aged up to twenty-five, account for 12.7% of those signing on in Waterford City and 10.6% in Dungarvan.
- Since December 2010, there has been a consistent decline in the number of persons on the live register nationally, regionally and in Waterford. As of December 2020 the decline since 2010 in Waterford was -54.7% - broadly similar to both the South-East and State average.

COVID-19 Emergency Income Supports, October 2020

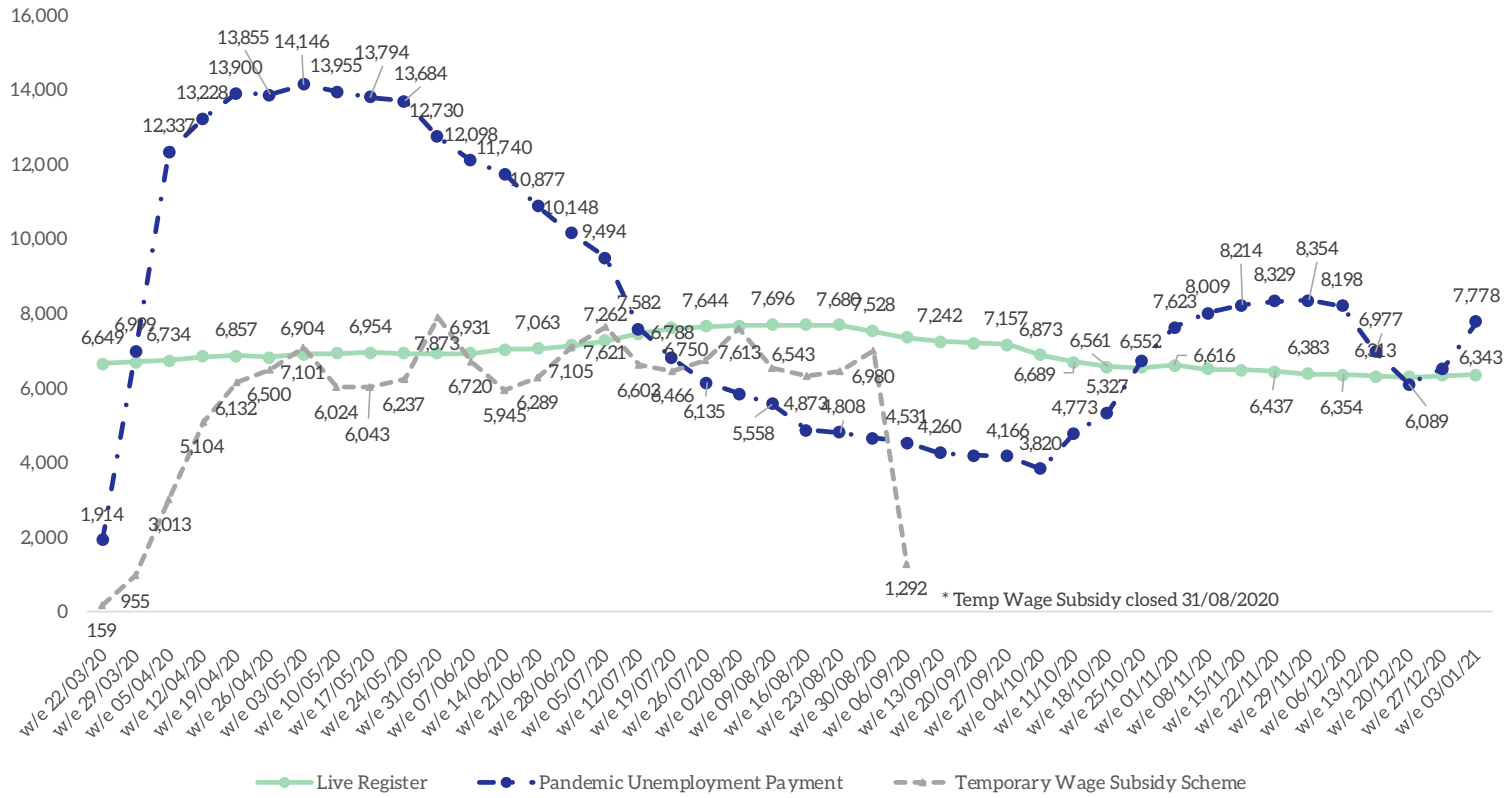


Figure 5.8: Weekly Emergency Income Supports, Waterford County, 2020 (Source: CSO)

- Those whose income has been affected due to COVID-19 benefited from the Pandemic Unemployment Payment (PUP) which is administered by the Department of Social Protection (DSP). The Temporary Wage Subsidy Scheme (TWSS) was operational from March to August 2020 but has been replaced by the Employment Wage Subsidy Scheme (EWSS) since the start of September 2020. The CSO has not yet disseminated EWSS data.
- The chart above shows the number of recipients of Emergency Income Support paid under the National COVID-19 Income Support Scheme between March 2020 and early January 2021. The Pandemic Unemployment increased between March 22 and April 5 from 1,914 to 12,337 recipients and peaking at 14,146 recipients on May 3. Subsequent reductions and increases since May 2020 are broadly in line with the series of rolling restrictions and lockdowns as implemented by Government.

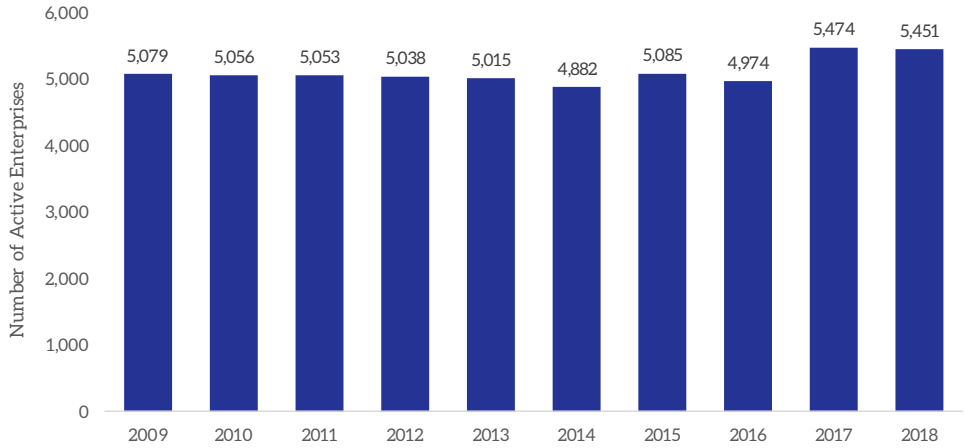


Figure 5.9: Active Enterprise in Carlow, 2009 to 2018 (Source: CSO & AIRO)

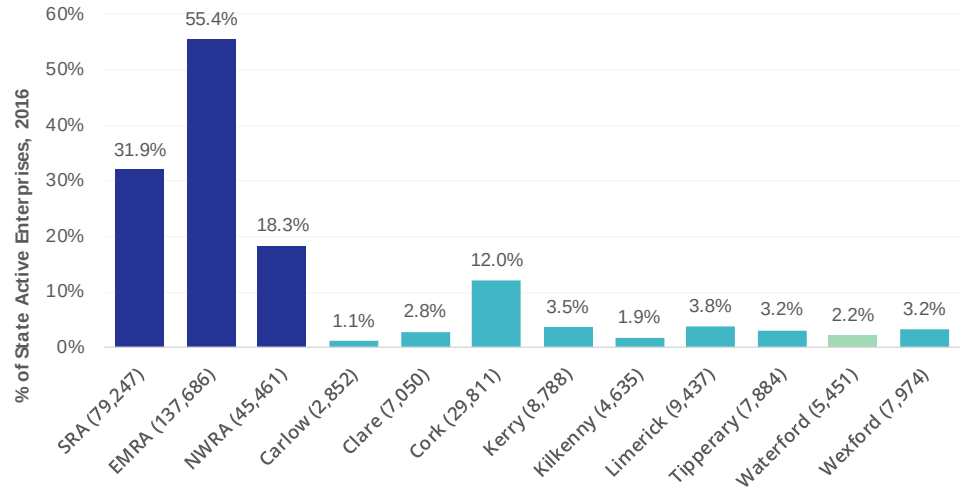


Figure 5.10: Active Enterprise in the Southern Regional Assembly and Local Authorities, 2018

- Business Demography data is made available annually by the CSO and is based on enterprises with employees that are registered with the Revenue Commissioners and that have filed a corporate tax return during the reference year. It is important to note however that Business Demography data generally underestimates the number of enterprises within a county. The reason for this is related to the geography of tax registrations.
- As of 2018, there are 5,451 Active Enterprises located in Waterford Despite the upturn in the national economy over the past five years, the number of active enterprises in Waterford in 2016 was the lowest recorded number since 2009. Since 2016 there has been a very strong increase in active enterprises with a growth rate of 9.5% (+477) over the two year period.
- Waterford based enterprises account for 2.2% of the total across the State. This rates is lower than other South-East counties such as Tipperary (3.2% or 9,437 but including North Tipp.) and Wexford (3.2% or 7,974).

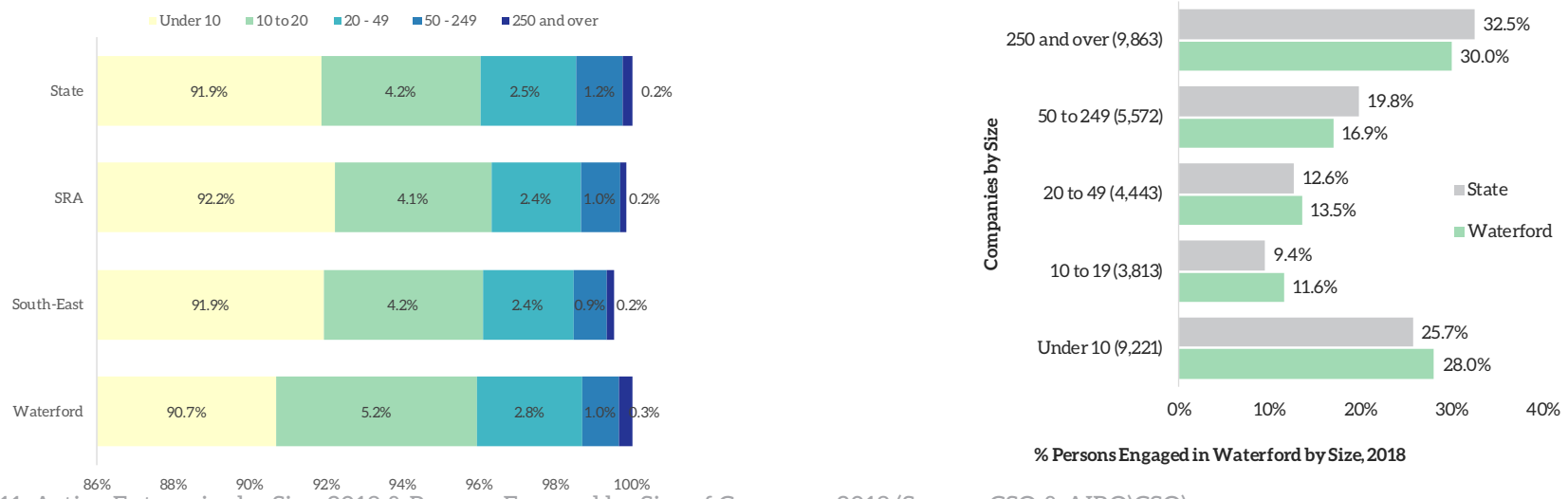
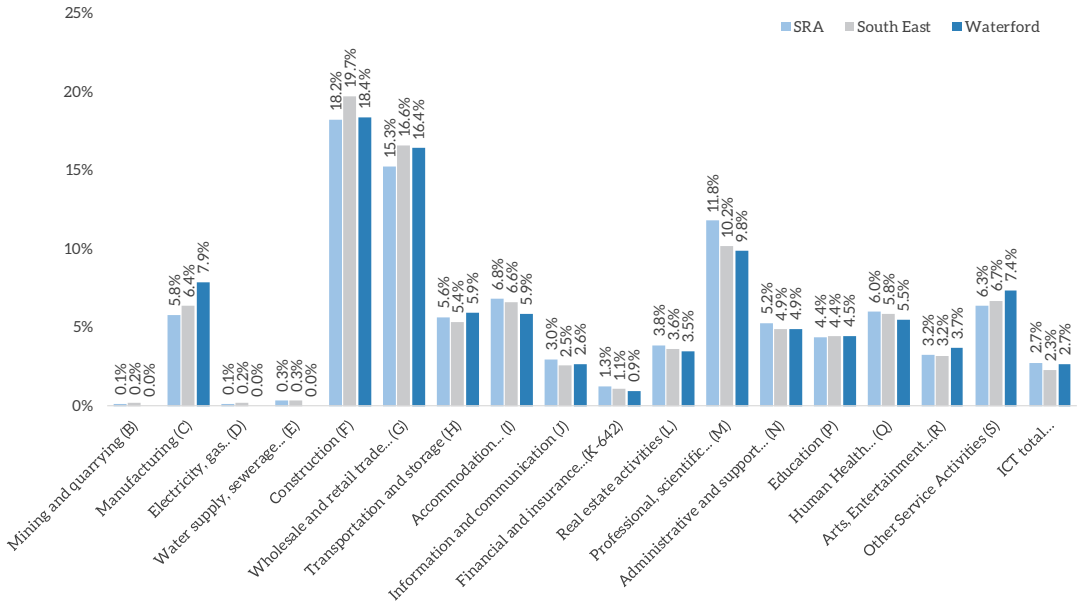


Figure 5.11: Active Enterprise by Size, 2018 & Persons Engaged by Size of Company, 2018 (Source: CSO & AIRO)CSO)



- As is the case regionally and nationally, small enterprises (with up to ten employees) account for the vast majority (>90.7%) of all enterprises in County Waterford. These firms provide more than a quarter (28%) of all jobs in the county. There are 53 Medium sized enterprises (50 to 249 engaged) in Waterford that employ 16.9% of all persons engaged in the county. Large companies (250 and over) are key to the Waterford economic based with 18 companies employing 30% all persons engaged in the county.
- In line with the national and regional profiles, the sectors in Waterford with the largest numbers of firms are as follows: construction; wholesale and retail trade; and professional, scientific and technical activities. The South-East Region and Waterford have proportionately more firms in construction and in wholesale & retail trade than is the case across the Southern Regional Assembly area. Waterford has proportionately more firms engaged in manufacturing and fewer in professional, scientific and technical activities than is the case across the region (NUTS III) and the regional assembly area (NUTS II).

Figure 5.12: % Active Enterprise in Waterford, South-East and SRA by Sector, 2018 (Source: CSO)

State Assisted Employment (Permanent & Full Time), 2016

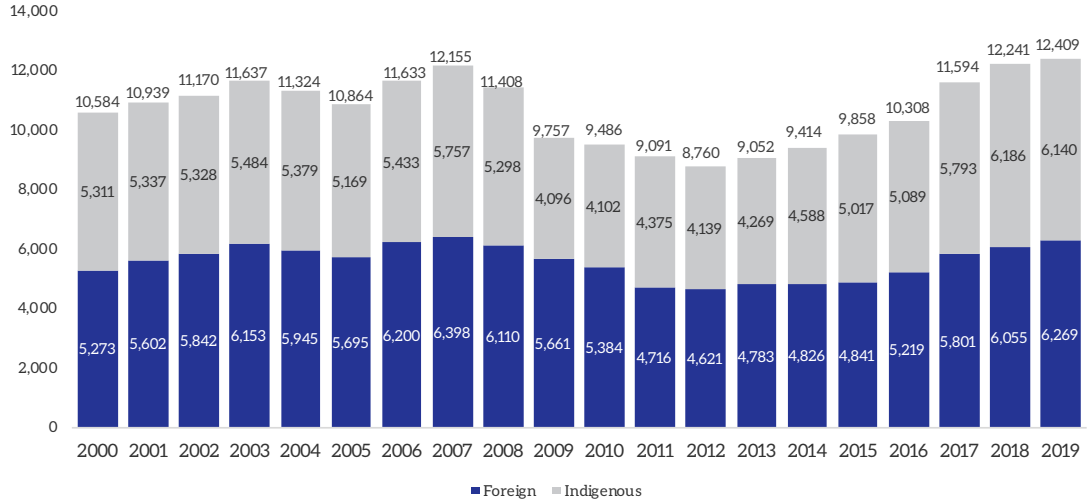


Figure 5.13: State Assisted Employment in Waterford, 2000 to 2019* (Source: DBEI & AIRO)

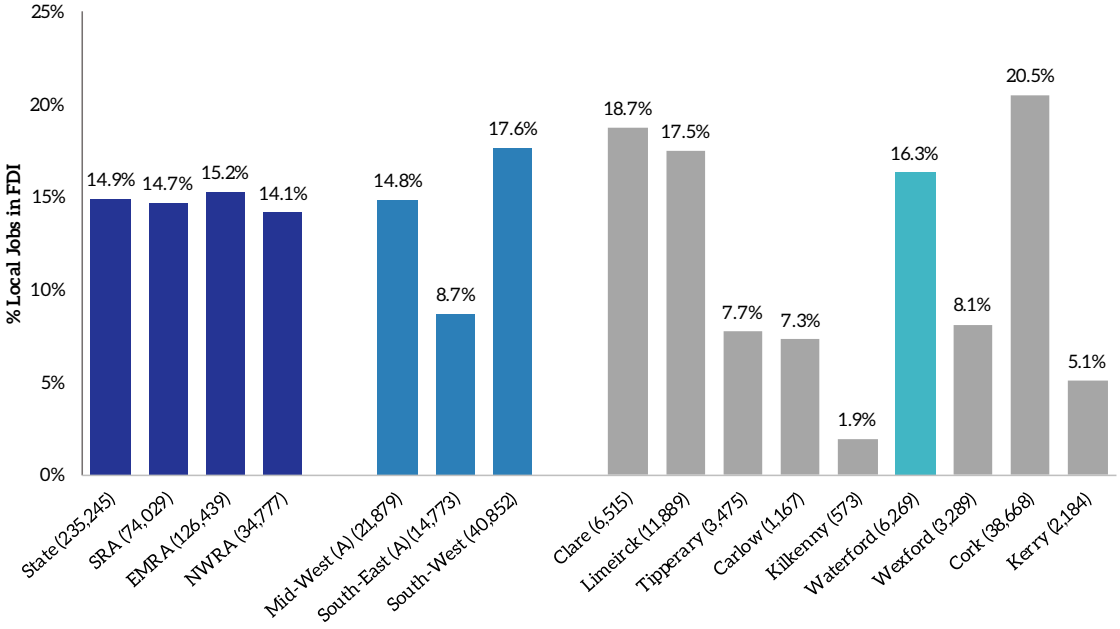


Figure 5.14: % FDI Employment in Waterford, 2019 (Source: DBEI & AIRO)

- The Annual Employment Survey provides an analysis of employment levels in Industrial (including Primary Production) and Services companies under the remit of IDA Ireland, Enterprise Ireland and Údarás na Gaeltachta. As of 2019, there were a total of 12,409 assisted employment jobs in Waterford. As a percentage of total employment, assisted jobs account for 32.3% of all jobs in Waterford (based on POWCAR Jobs 2016).
- The bottom graphic provides an estimation on the number of known jobs in an area that are FDI based. This graphic is based on a combination of State Assisted data from DBEI and POWCAR 2016 results. The average rate of FDI based jobs in the South-East region is 8.7%. With a relatively high number of large FDI companies in Waterford (18), employment in the FDI sector accounts for 16.3% of all local employment - the fourth highest rate of FDI in the Southern Region.

Geographic Profile of Incomes, 2016

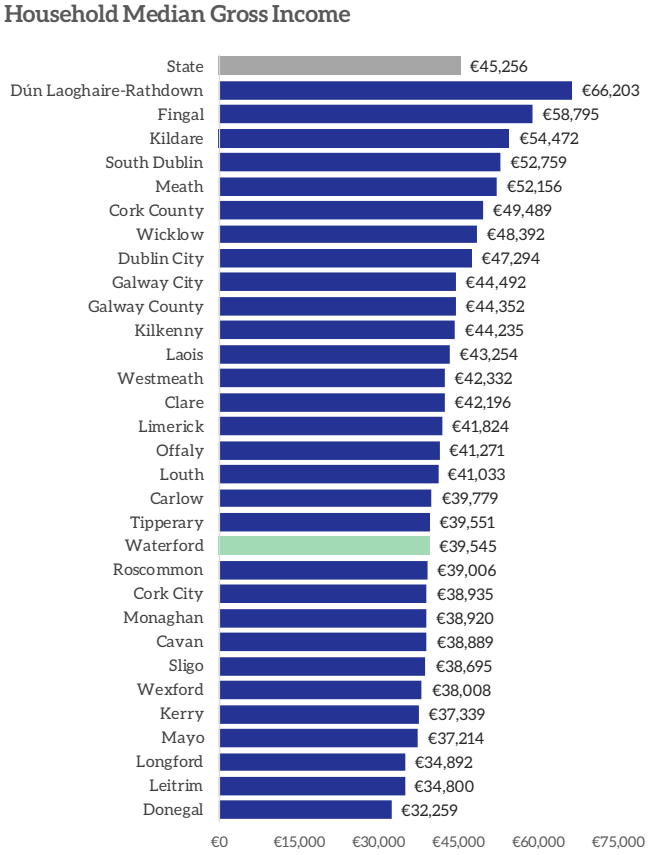


Figure 5.15: Household Median Gross Income, 2016 (Source: CSO)

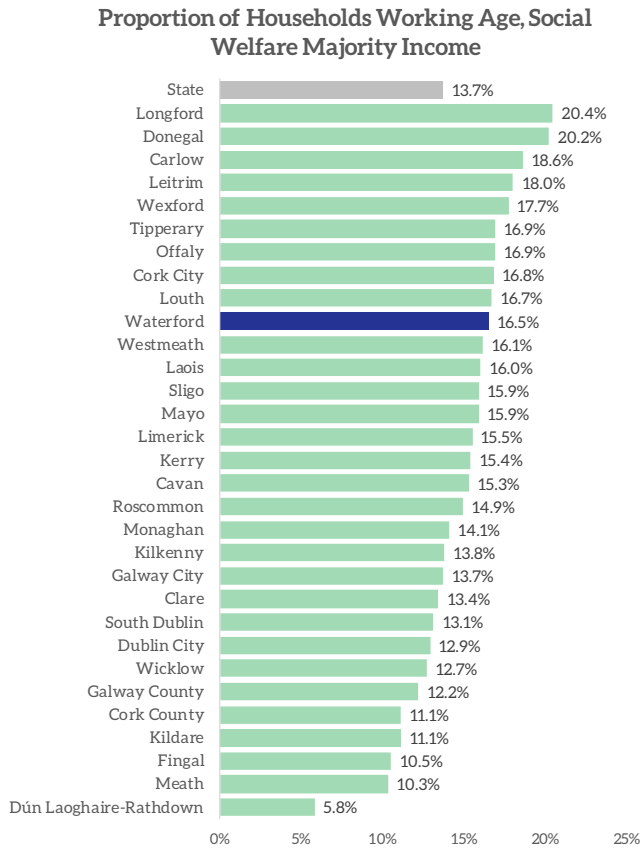


Figure 5.16: Proportion of Households Working Age Social Welfare Majority, 2016

- Geographical Profiles of Income in Ireland 2016 (CSO), examines income for both households and individuals by county and by Electoral Division. Income is also examined across the areas of housing, health, education, occupation and commuting. The primary definition of income used throughout this report is Gross Income. This includes income from employment, self-employment, pensions, rental property, social welfare and further education grants. The median gross income for households was €45,256 in 2016 and ranged from €32,259 in Donegal to €66,203 in Dún Laoghaire-Rathdown. Waterford recorded the 12th lowest medial gross income at €39,545. Across the South-East, only Wexford recorded a lower income of €38,008. The map on the following pages detail the distribution of gross income at the ED level in Waterford.
- The graphic on the right details the proportion of households where working age social welfare payments accounted for the majority of income. The State average was recorded at 13.7% with Waterford recording the tenth highest rate at 16.5%. Within the South-East, rates were higher in both Carlow (18.6%), Wexford (17.7%) and Tipperary (16.9%). In contrast, Dún Laoghaire-Rathdown recorded the lowest rate at 5.8%. Note that a household where over half of its gross income came from working age social welfare (excluding child benefits and state pension) was considered majority of income.

Geographic Profile of Incomes, 2016

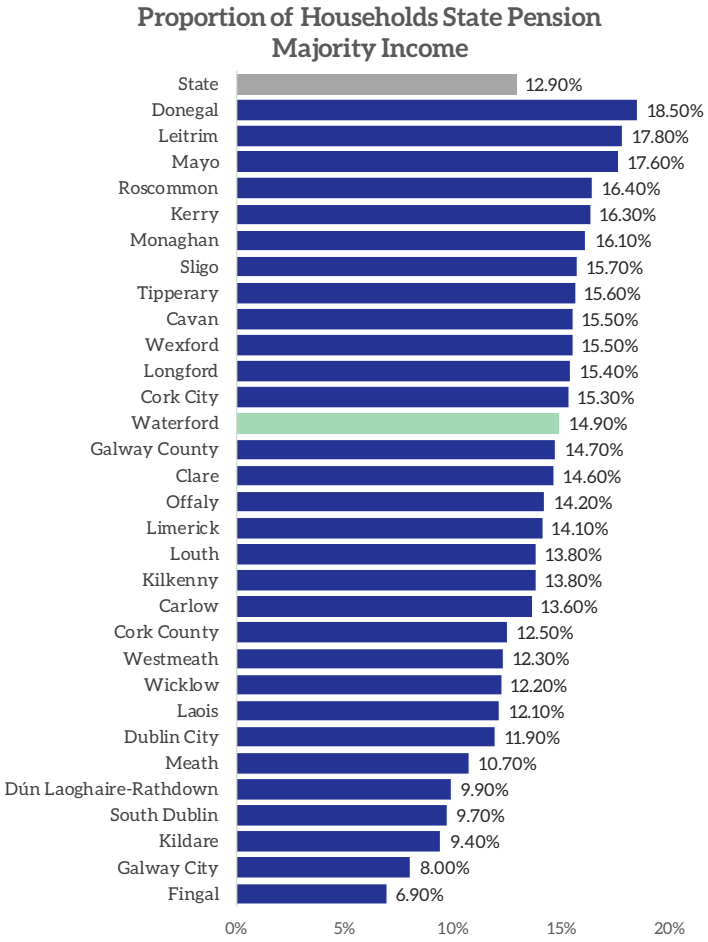


Figure 5.17: Proportion of Households State Pension Majority Income, 2016 (Source: CSO)

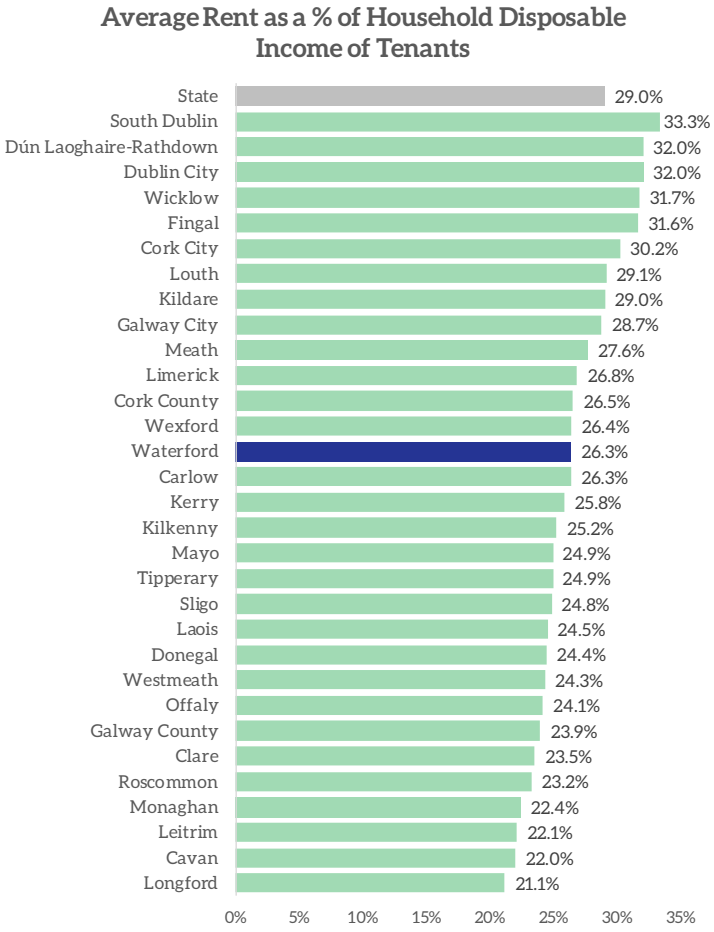
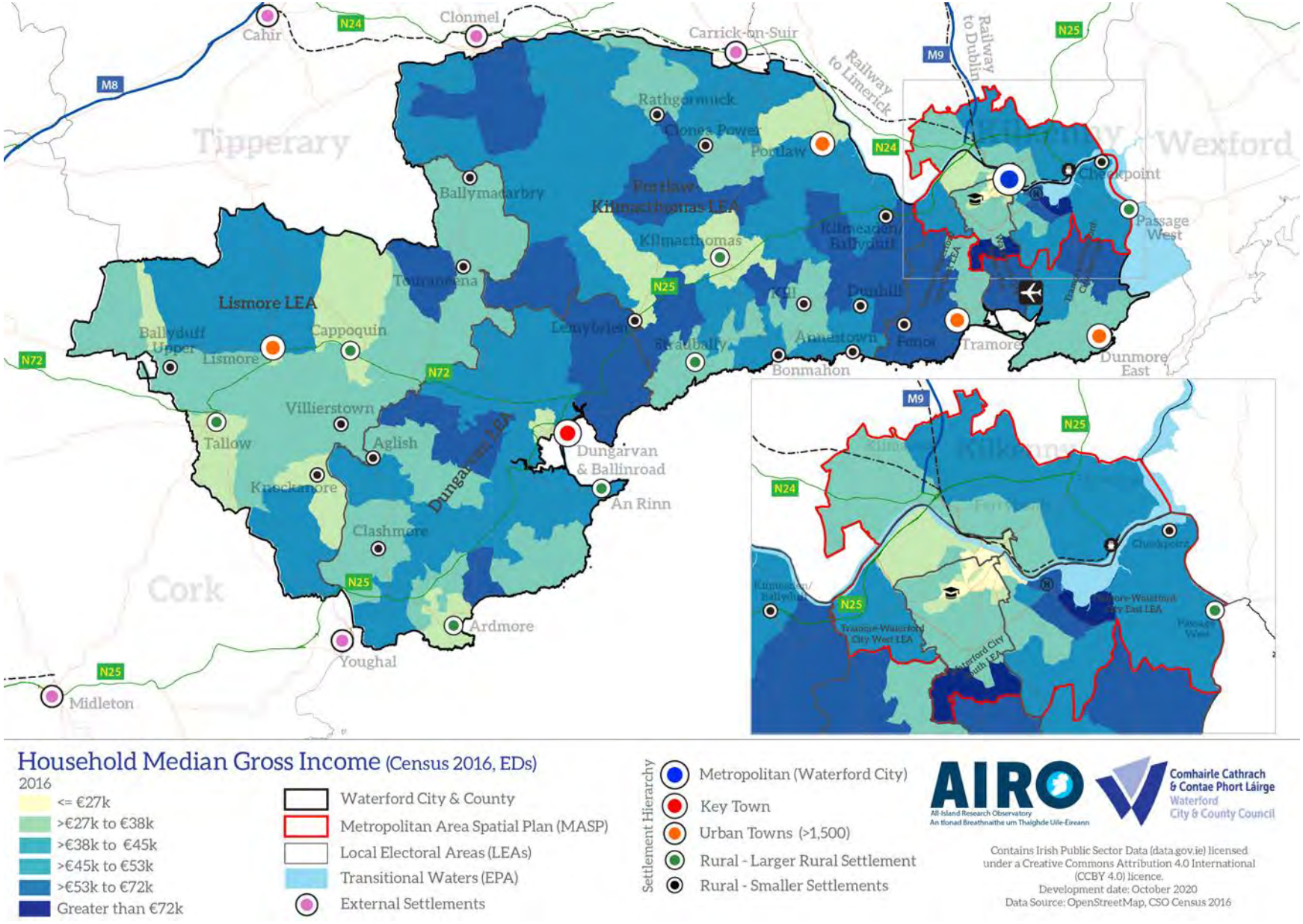


Figure 5.18: Average Rent as a % of Household Disposable Income of Tenants , 2016 (Source: CSO)

- The graphic on the left detail the proportion of households where the majority of household income is from the State Pension. Within Waterford the rate is recorded at 14.9% - higher than the State average of 12.9%. Within the South-East, the rate is higher in Wexford (15.5%) and Tipperary (15.6%). Fingal had the lowest proportion of households where state pension was majority of income at 6.9%, followed by Galway City (8.0%) and Kildare (9.4%). Note that a household where over half of its gross income came from state pension was considered majority of income.
- Average rent was 33.3% of household disposable income for tenants in South Dublin, the highest proportion in the country, while the lowest was 21.1% in Longford. Within Waterford the rate was 26.3% - lower than the State average of 29%. The rate across the South-East is broadly similar with Wexford, Carlow and Kilkenny all with rates between 25% and 26.5%. Household disposable income is defined as household gross income less taxes and social insurance.

Geographic Profile of Incomes, 2016



Map 5.4: Household Median Gross Income at ED level, 2016 (Source: CSO)

Estimated Disposable Income Per Person, 2017

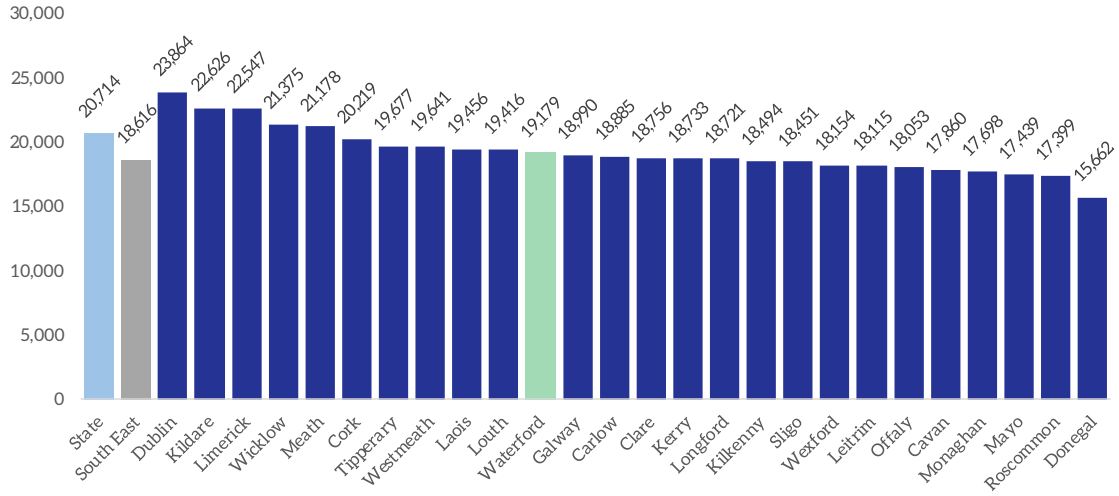


Figure 5.19: Estimates of Disposable Income Per Person, 2017 (Source: CSO)

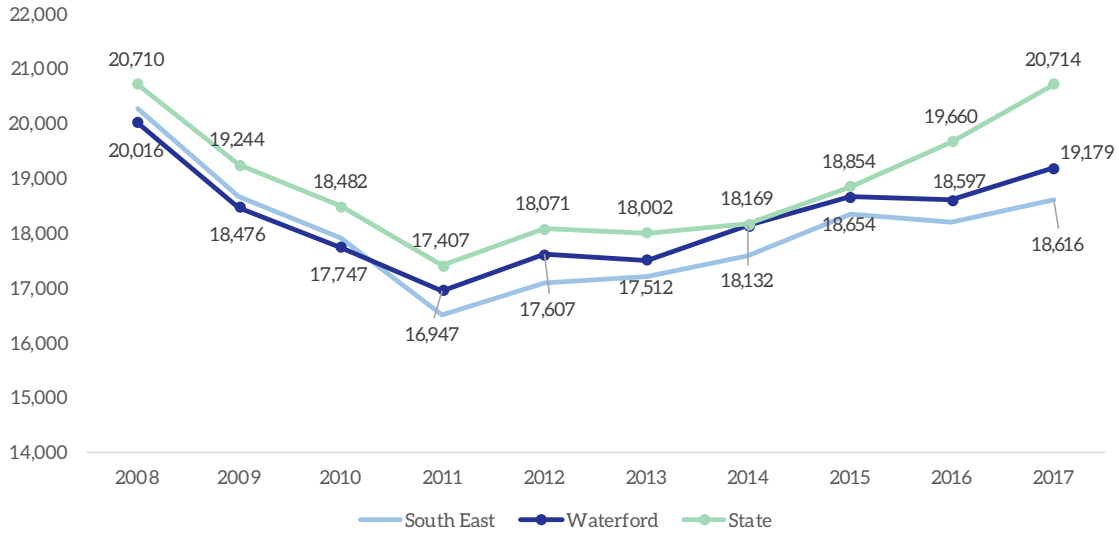


Figure 5.20: Estimates of Disposable Income Per Person 2008 to 2017 (Source: CSO)

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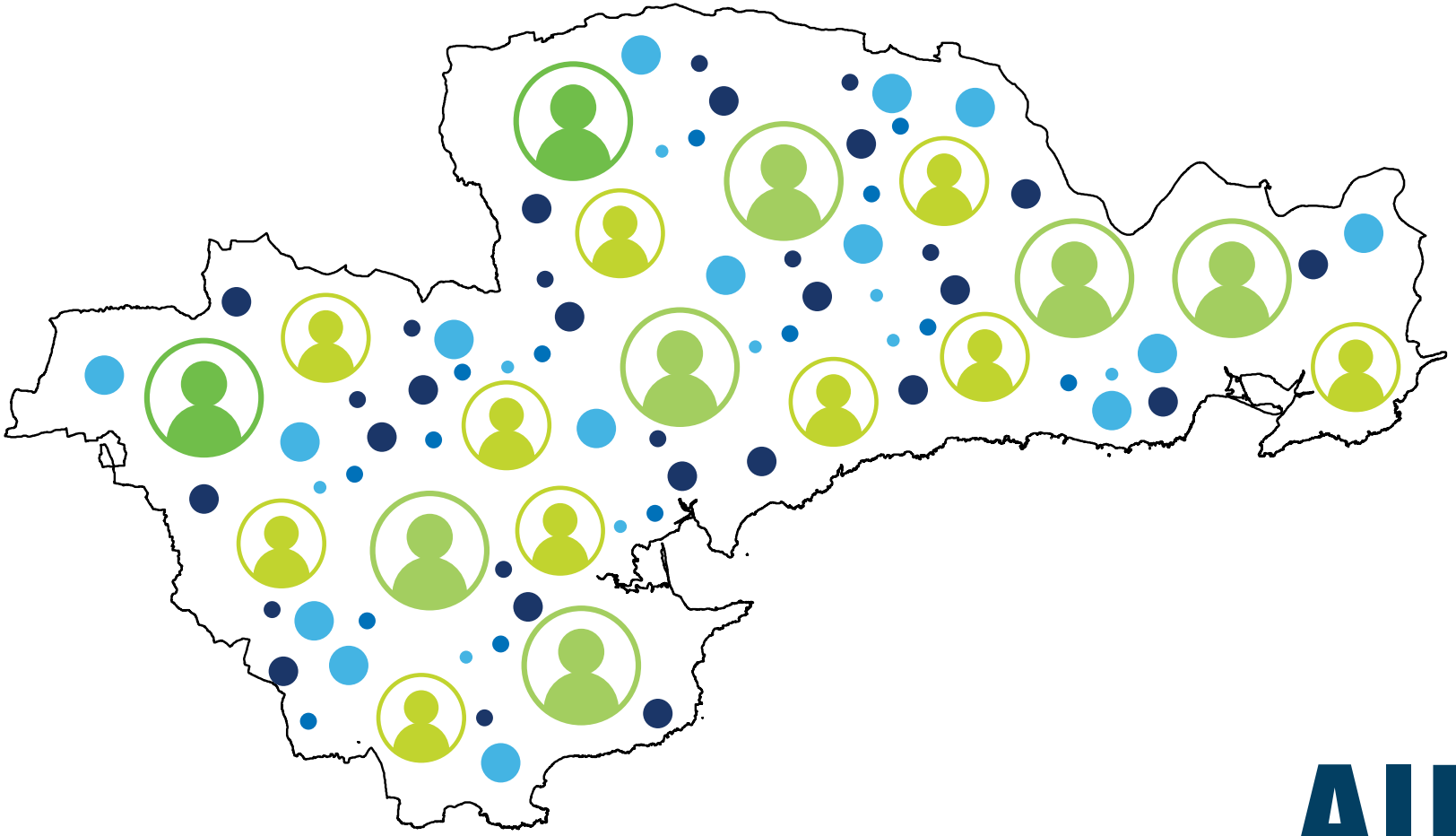
Waterford City & County Council

- The Mid-East region had the 3rd lowest average disposable income per person in 2017. At €18,616 it was 10% lower than the State average of €20,714 and approximately 2.2% higher than its revised 2016 figure of €18,213.
- While the county figures involve uncertainty, they do provide a useful indication of the degree of variability at county level. Dublin, Limerick, Kildare, Meath and Wicklow are the only counties where per capita disposable income exceeded the state average in 2017 with Cork, Tipperary, Westmeath and Laois in order just below. Waterford is the 11th highest in the State with a figure of €19,179 - only Tipperary has a higher figure in the South-East.
- The bottom graphic provides a time-series view of Disposable Income in Waterford, the South-East and the State. The graph details that Waterford has consistently had a figure well below the State average per capita from 2008 to 2017. Furthermore, the gap between Waterford and the State has expanded in recent years with Waterford disposable income -1% of the State in 2015 and increasing to -10.1% in 2017.

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 6a:
Settlement Profiles



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Waterford City and Suburbs

Population

Total	% Waterford Total
48,216	41.5%

Housing Tenure

Stock	% Waterford Total
24,455	42.8%

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Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
62,382	+14,166 or 29.3%	2.5 Persons per Hhld	+5,666

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 190,600 PE
- Wastewater Treatment Spare Capacity (2017): 76,095 PE
- Public Water Capacity: Capacity Available

*PE: Refers to Population equivalent or unit per capita loading

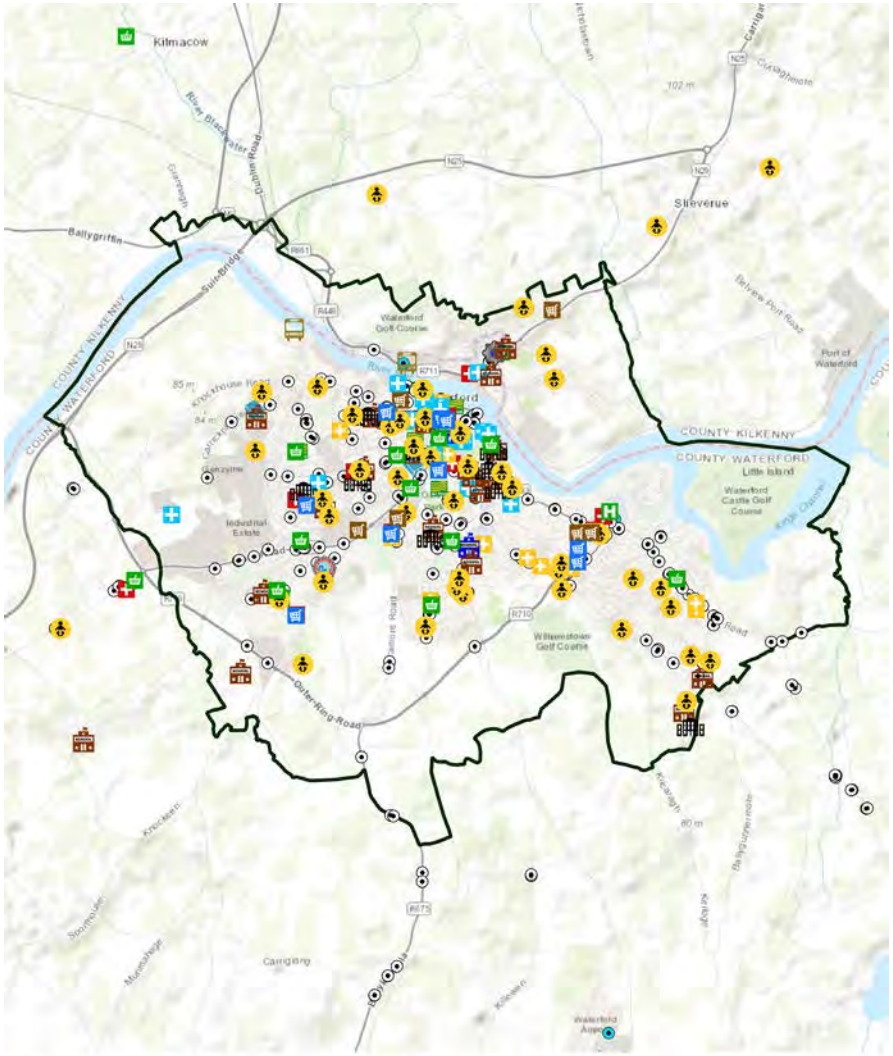
Waterford City and Suburbs Facilities

Education		Health		Travel		Services		Retail*	
Creche	45	GP	20	Bus Stops	228	Fire Station	1	Supermarket	10
Primary School	23	Health Centre	2	Rail Station	1	Garda Station	2	Discount (Aldi/Lidl)	6
Secondary	9	Pharmacy	25			Post Office	11	Convenience	12
		Dentist	20			Library	4		

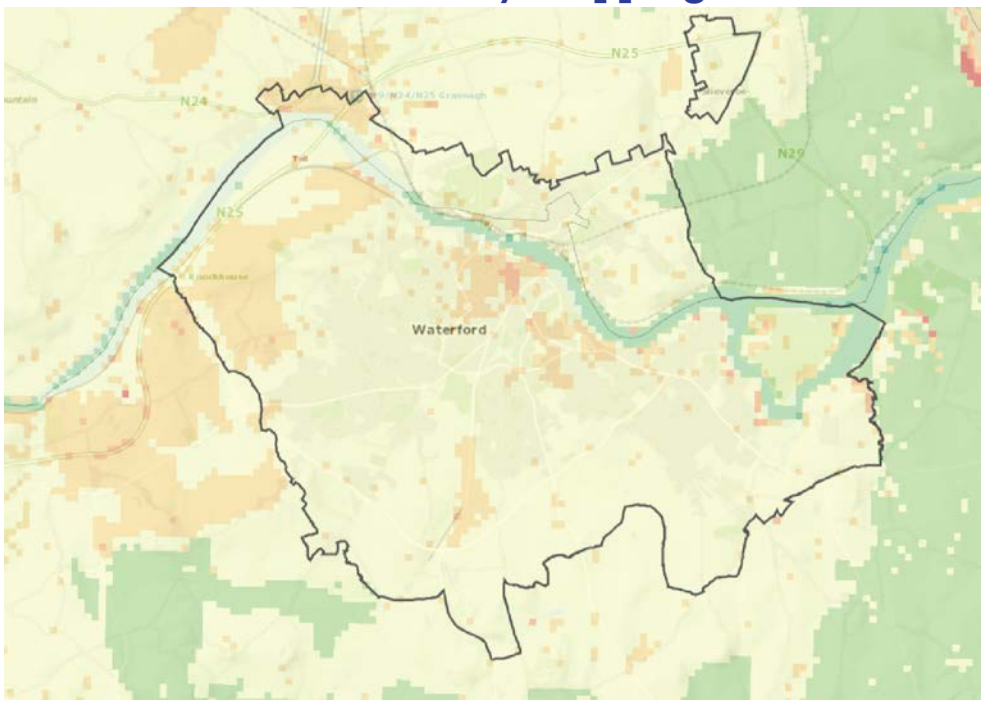
*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

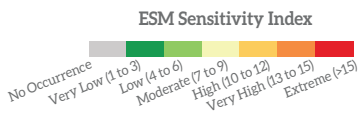
Waterford City and Suburbs

Settlement Facility Profile



Environmental Sensitivity Mapping





This high level environmental sensitivity analysis has been carried out using the EPA Environmental Sensitivity Mapping (ESM) webtool. This a novel decision-support tool for SEA and planning processes in Ireland. It allows users to create area-specific environmental sensitivity maps. The variables included in the analysis are those as used for the NPF and RSES SEA supporting analysis.

The Legend (left) indicates areas where environmental sensitivities have been recorded. A score of 0 indicates **No Occurrence** where as a score of >15 indicates an areas of **Extreme** environmental sensitivity.
See **https://www.enviromap.ie/** for more details.

ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

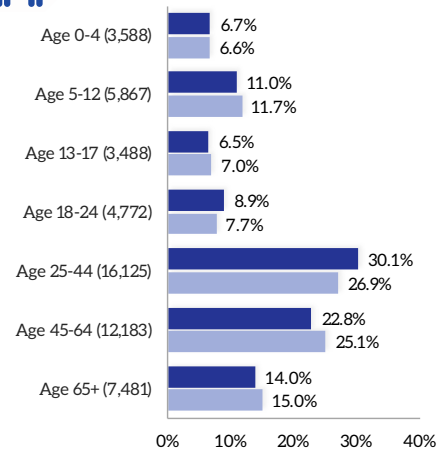
Waterford City and Suburbs

Key socio-economic overview, 2016

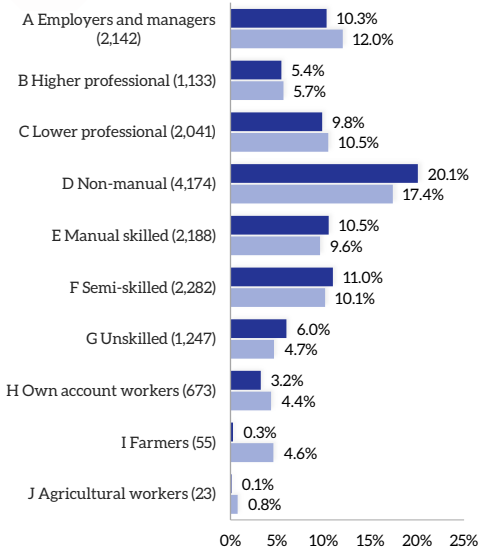
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



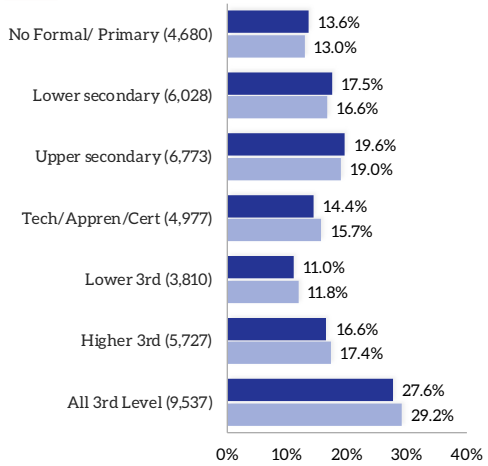
Socio-Economic Group



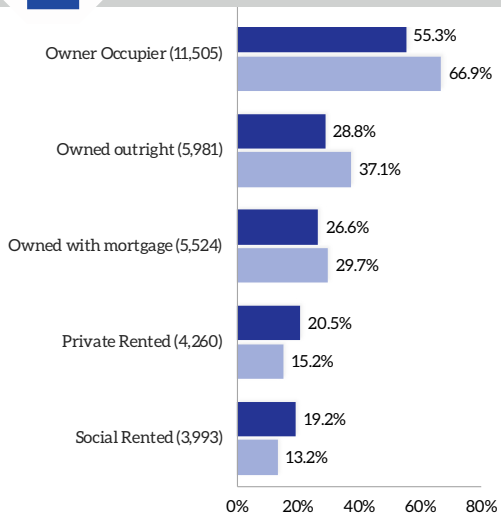
Total Population

Total	% Waterford Total
53,504	46.1%

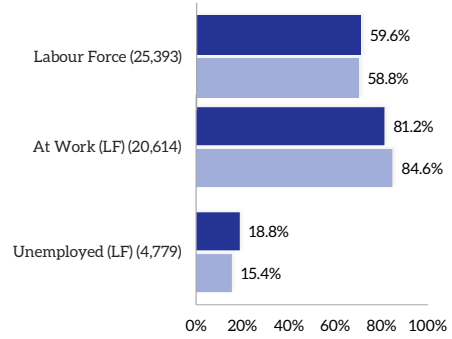
Education Attainment



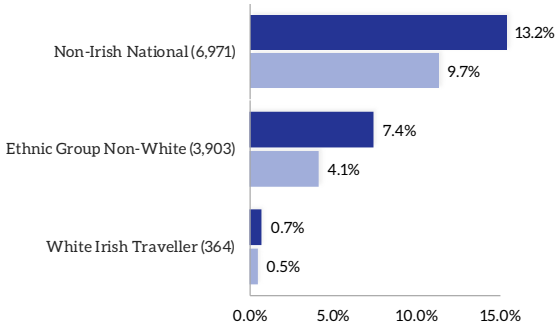
Housing Tenure



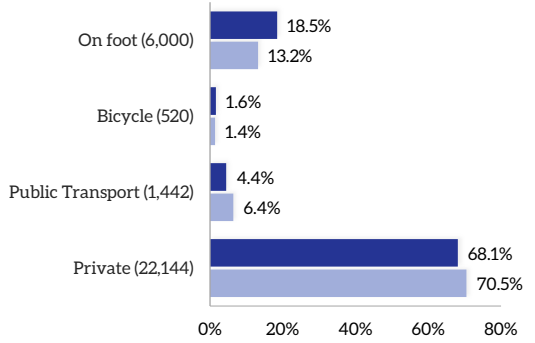
Labour Force



Nationality & Ethnicity

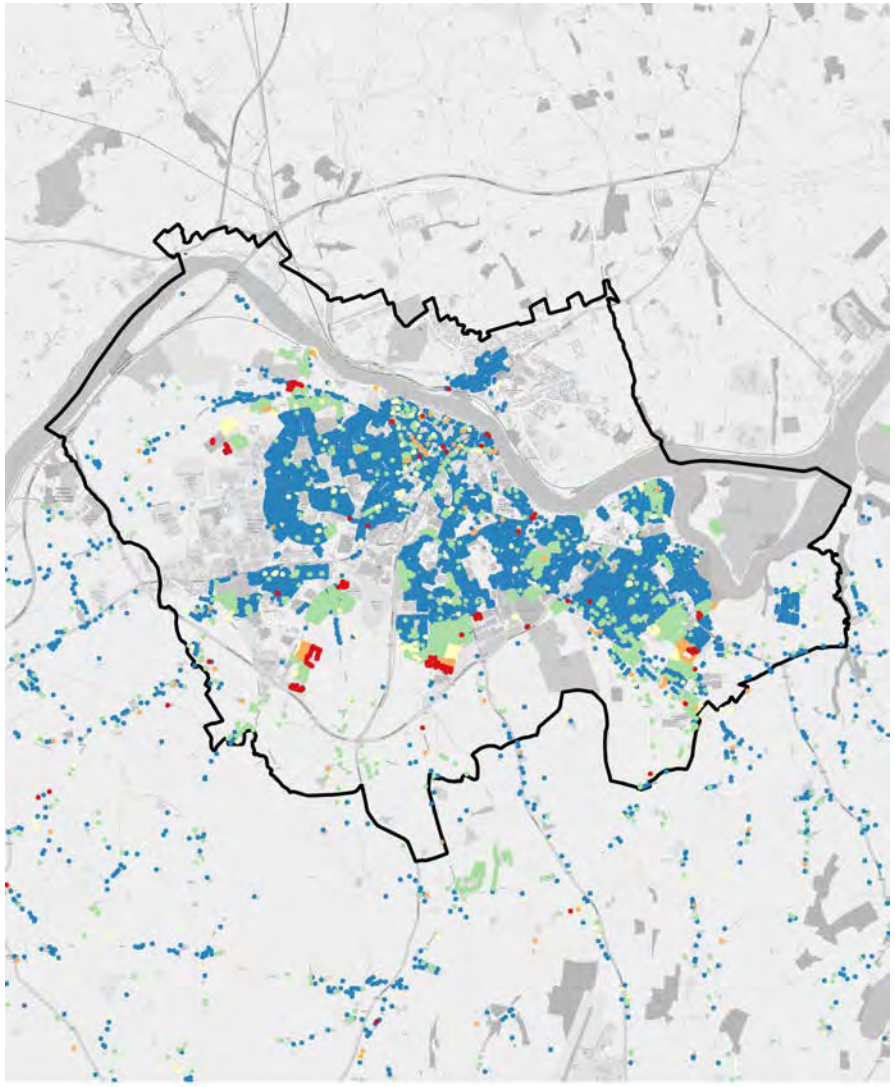


Mode of Travel

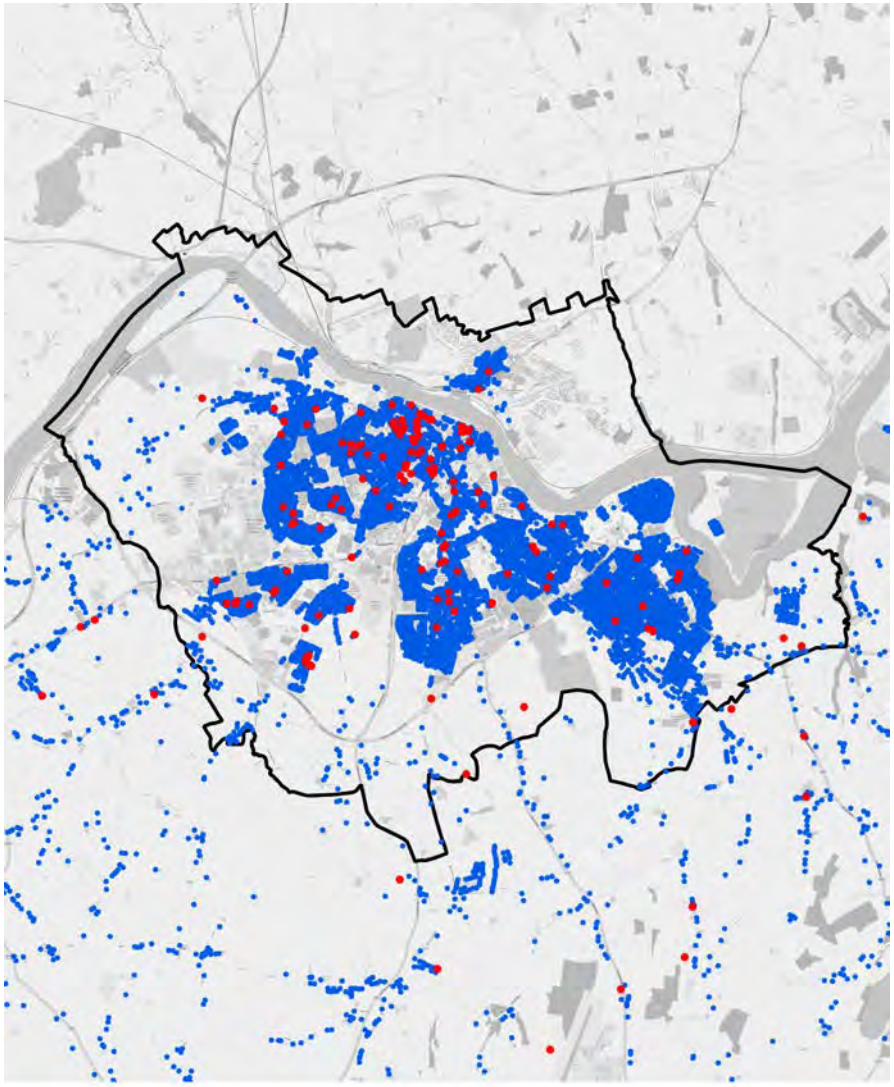


Waterford City and Suburbs

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



Dungarvan/Ballinroad

Population

Total	% Waterford Total
10,388	8.9%

Housing Tenure

Stock	% Waterford Total
4,670	8.9%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
11,864	+1,476 or 14.2%	2.5 Persons per Hhld	+590

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity:
  Dungarvan 25,000 PE
  Ballinroad 1,500 PE*
- Wastewater Treatment Spare Capacity (2017):
  Dungarvan 6,574 PE *
  Ballinroad 500 PE*
- Public Water Capacity:
  Capacity Available in DG & Ballinroad

*PE: Refers to Population equivalent or unit per capita loading

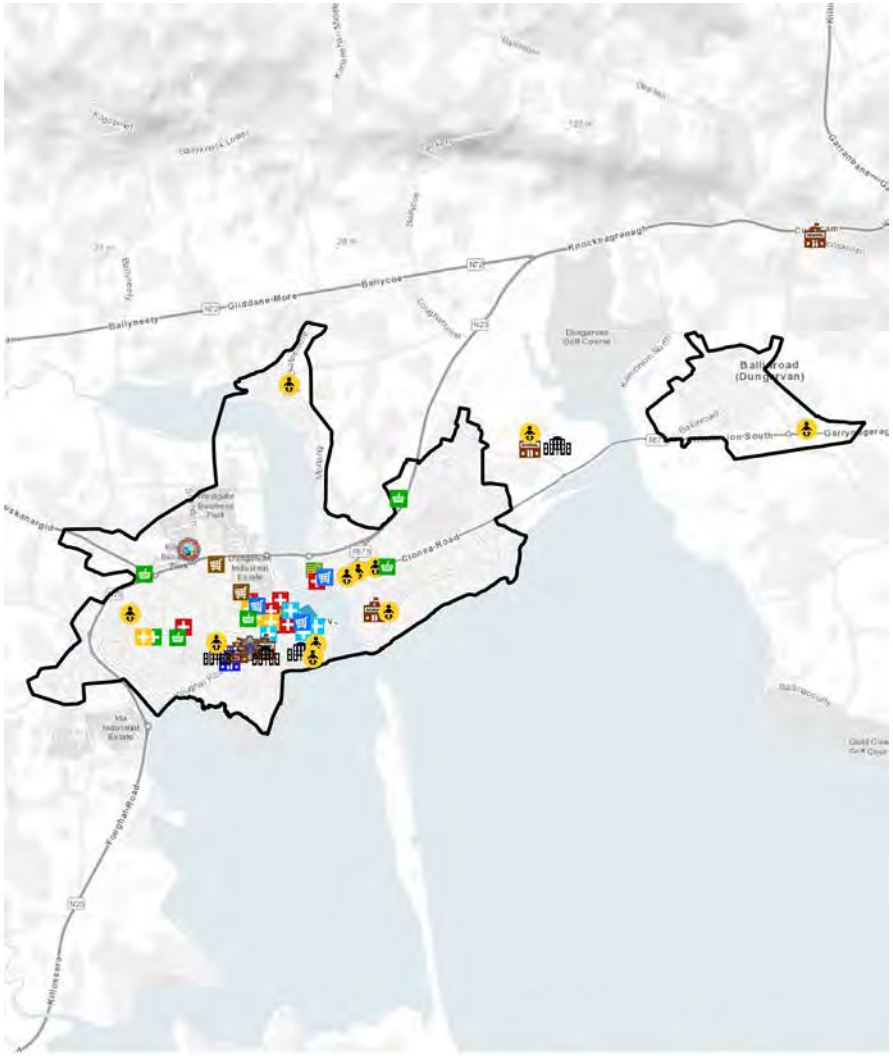
Dungarvan/Ballinroad Facilities

Education		Health		Travel		Services		Retail*	
Creche	10	GP	4	Bus Stops	16	Fire Station	1	Supermarket	3
Primary School	4	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	2
Secondary	3	Pharmacy	8			Post Office	1	Convenience	6
		Dentist	4			Library	1		

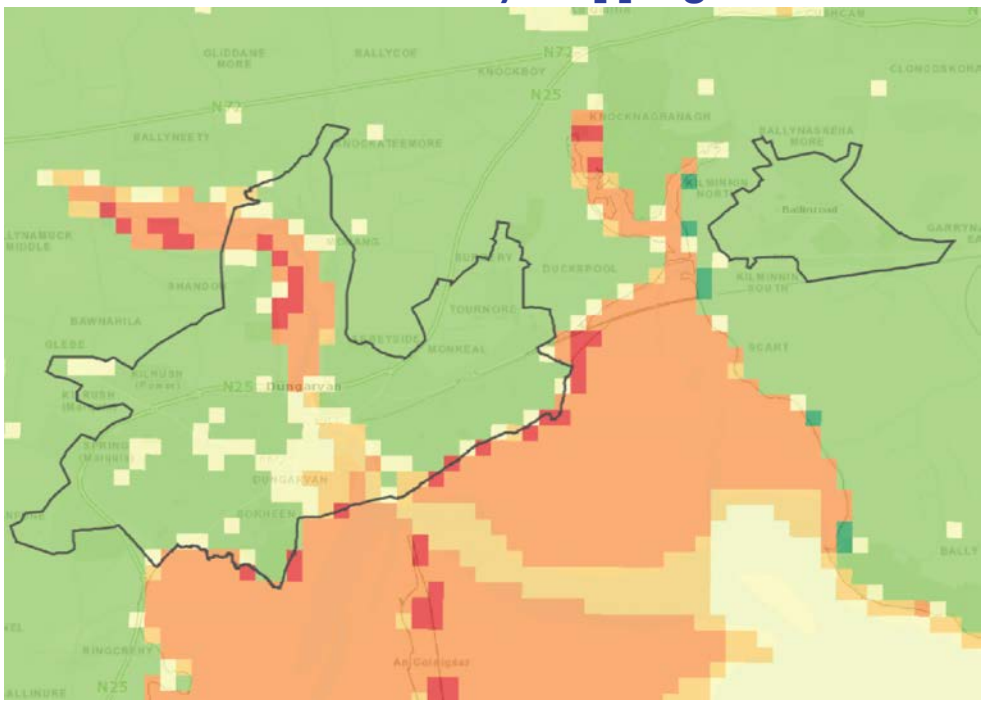
*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

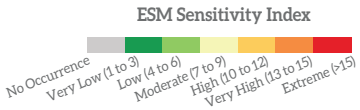
Dungarvan/Ballinroad

Settlement Facility Profile



Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

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Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

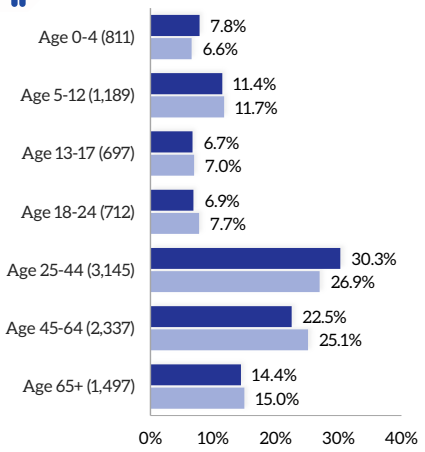
Dungarvan/Ballinroad

Key socio-economic overview, 2016

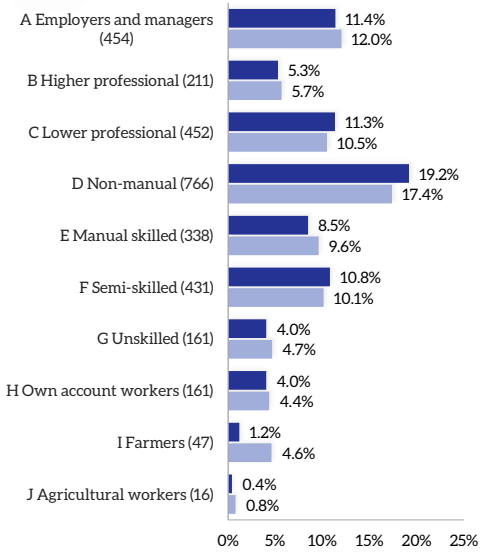
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



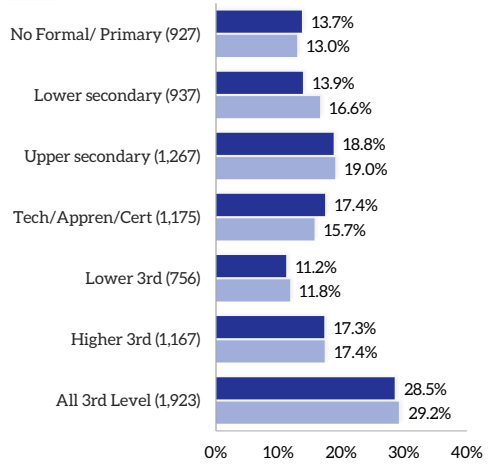
Socio-Economic Group



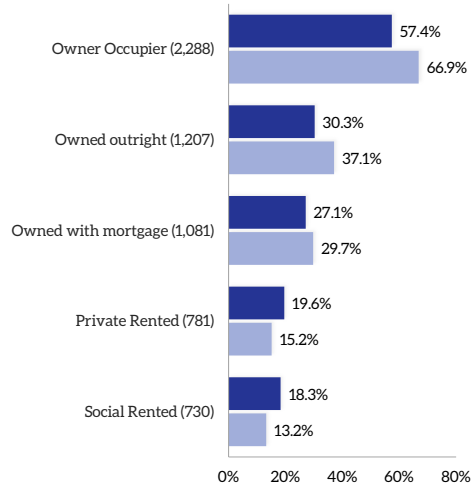
Total Population

Total	% Waterford Total
10,388	8.9%

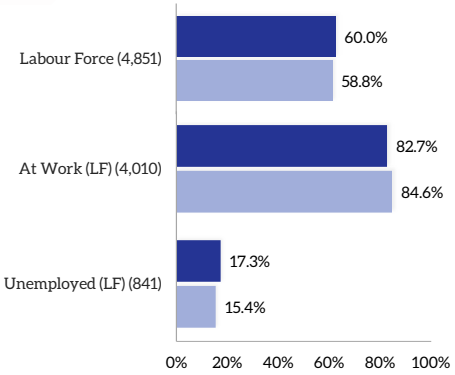
Education Attainment



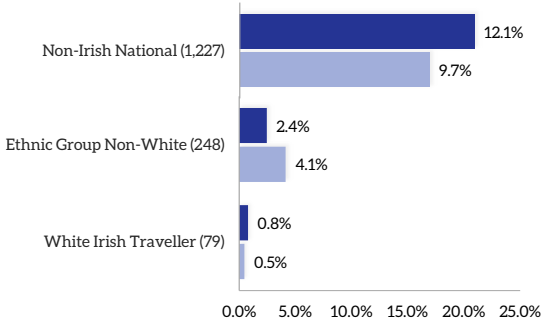
Housing Tenure



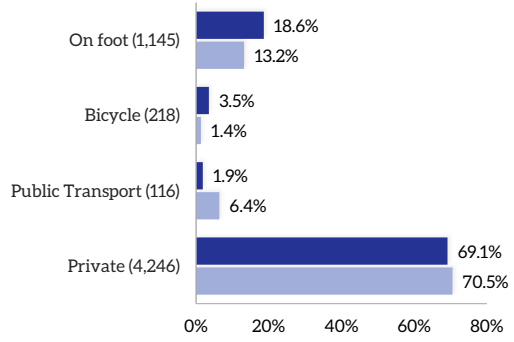
Labour Force



Nationality & Ethnicity

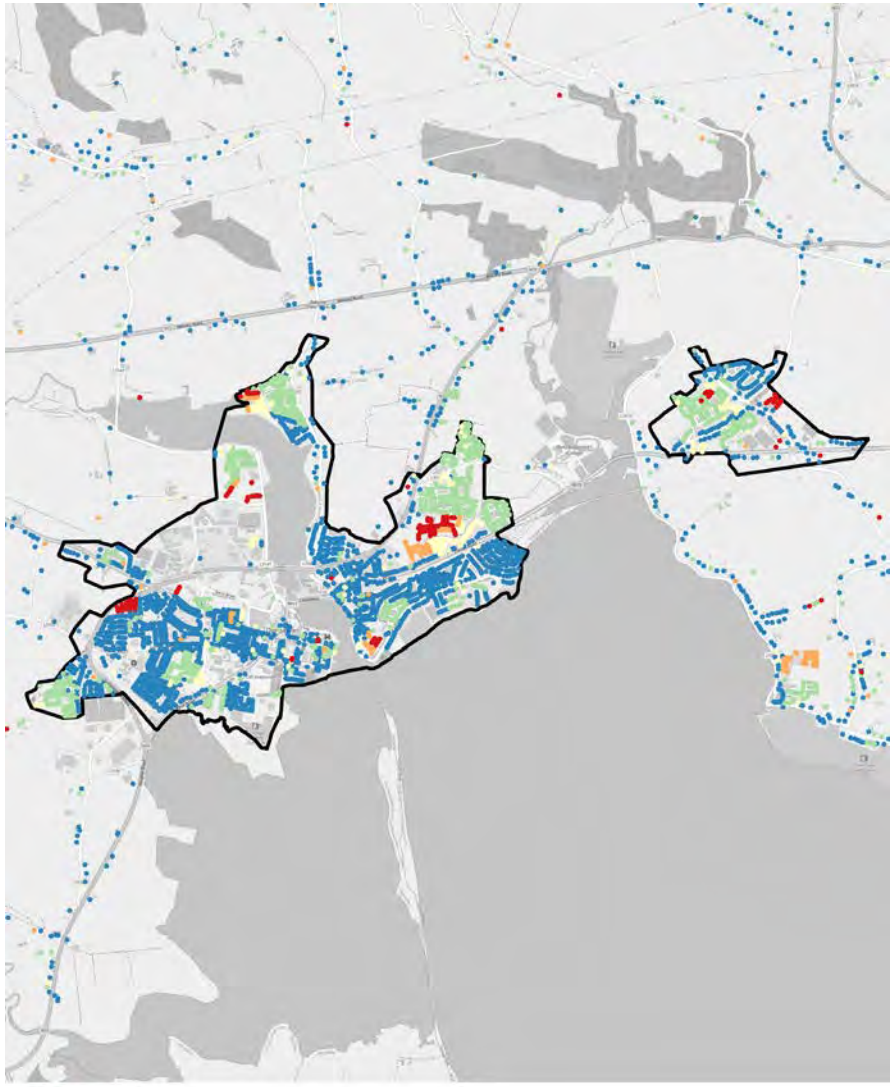


Mode of Travel



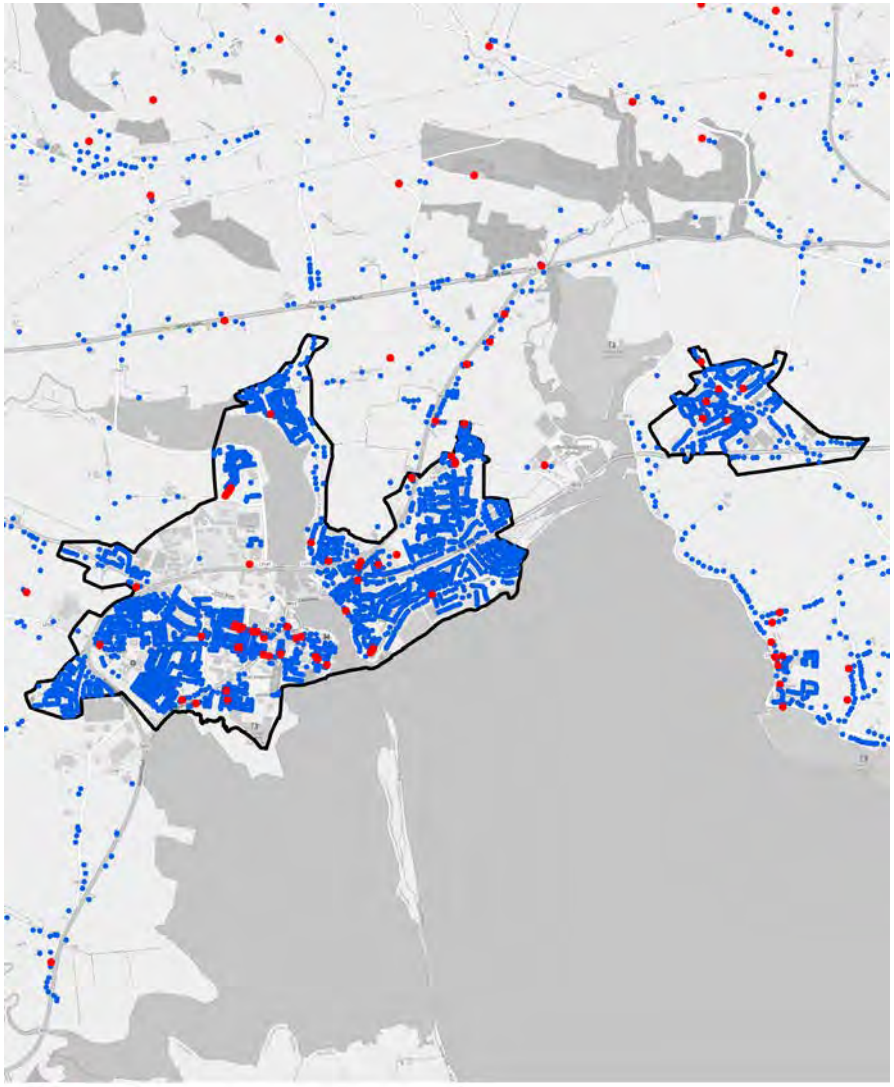
Dungarvan/Ballinroad

Residential Housing Developments Timeline



- Latest Developments (2018 to 2020 Q2)
- Waterford CDP 12-17 (2012 to 2017)
- Bust (2008 to 2011)
- Boom (2001 to 2007)
- Pre Boom (Pre 2001)

Housing Vacancy (GeoDirectory Q2 2020)



- Residential Properties (Vacant)
- Residential Properties (Occupied)

Tramore

Population

Total	% Waterford Total
10,381	8.9%

Housing Tenure

Stock	% Waterford Total
4,678	8.9%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
11,549	+1,168 or 11.2%	2.5 Persons per Hhld	+467

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 20,000 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 2,800 PE
- Public Water Capacity: Capacity Available. Adamstown supply, some issues on distribution network, topography, etc

*PE: Refers to Population equivalent or unit per capita loading

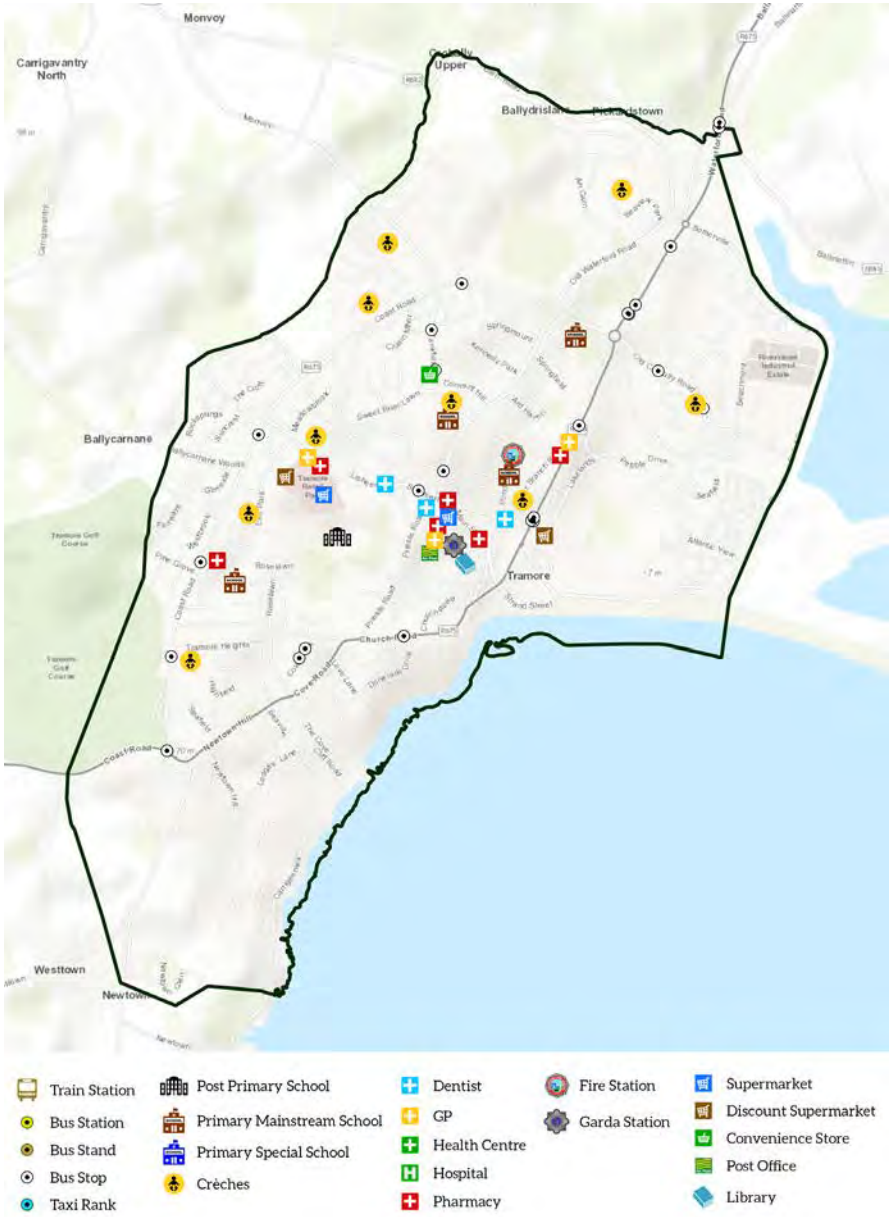
Tramore Facilities

Education		Health		Travel		Services		Retail*	
Creche	10	GP	3	Bus Stops	28	Fire Station	1	Supermarket	2
Primary School	4	Health Centre	0	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	2
Secondary	1	Pharmacy	6			Post Office	1	Convenience	1
		Dentist	3			Library	1		

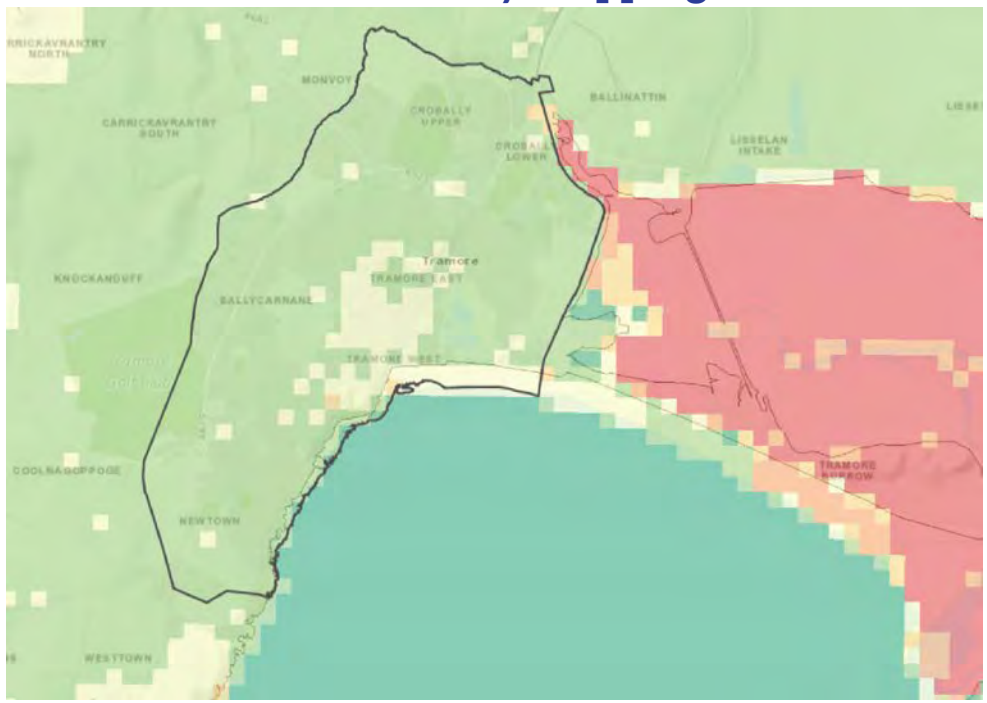
*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

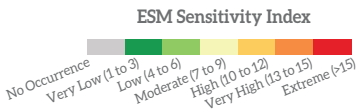
Tramore

Settlement Facility Profile



Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

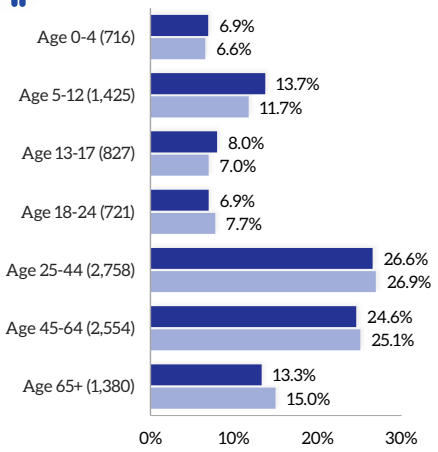
Tramore

Key socio-economic overview, 2016

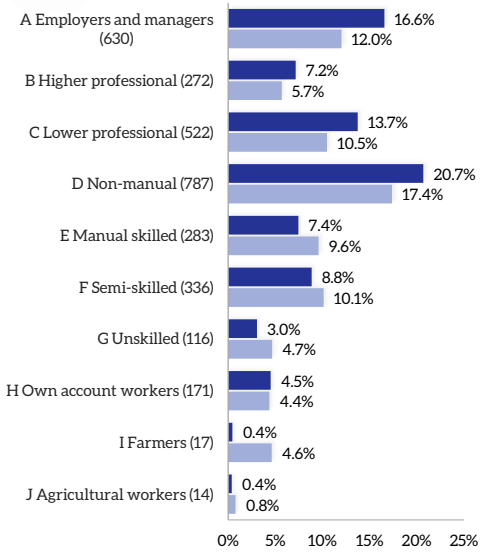
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



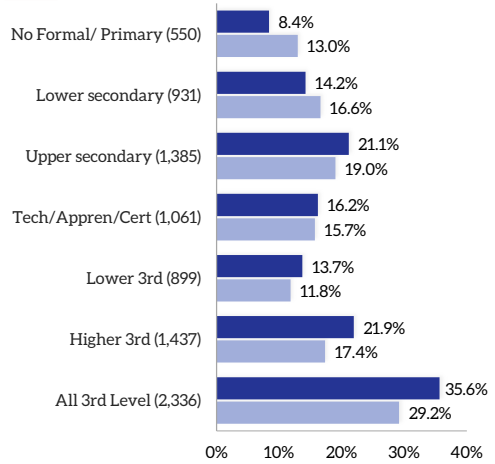
Socio-Economic Group



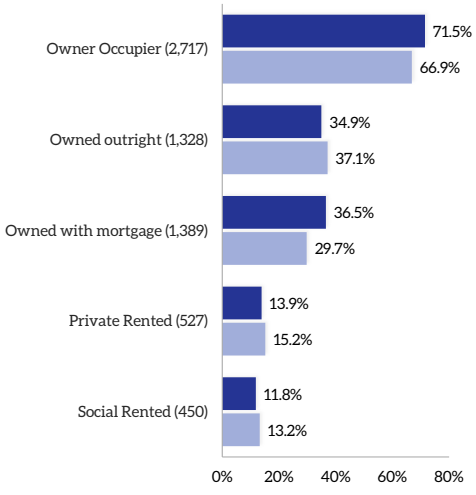
Total Population

Total	% Waterford Total
10,381	8.9%

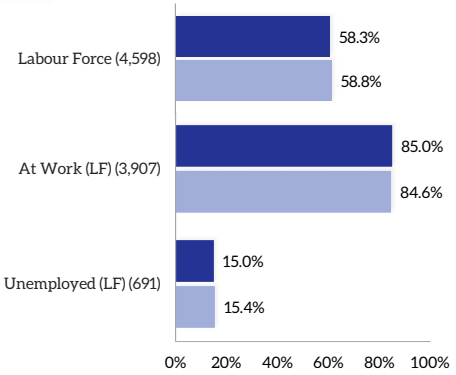
Education Attainment



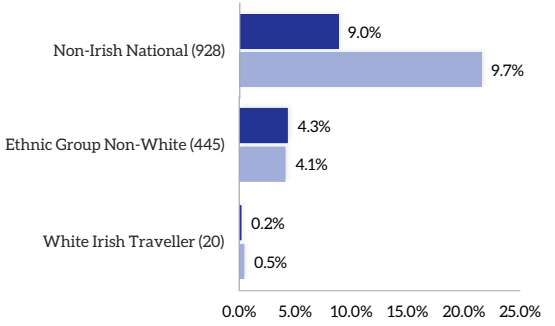
Housing Tenure



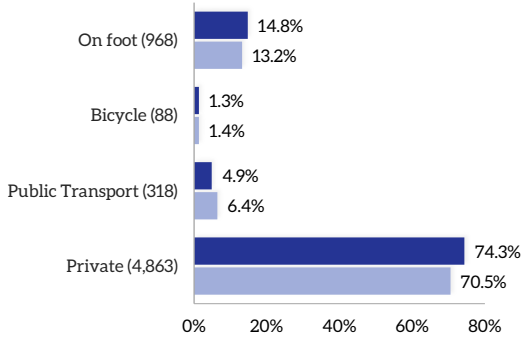
Labour Force



Nationality & Ethnicity

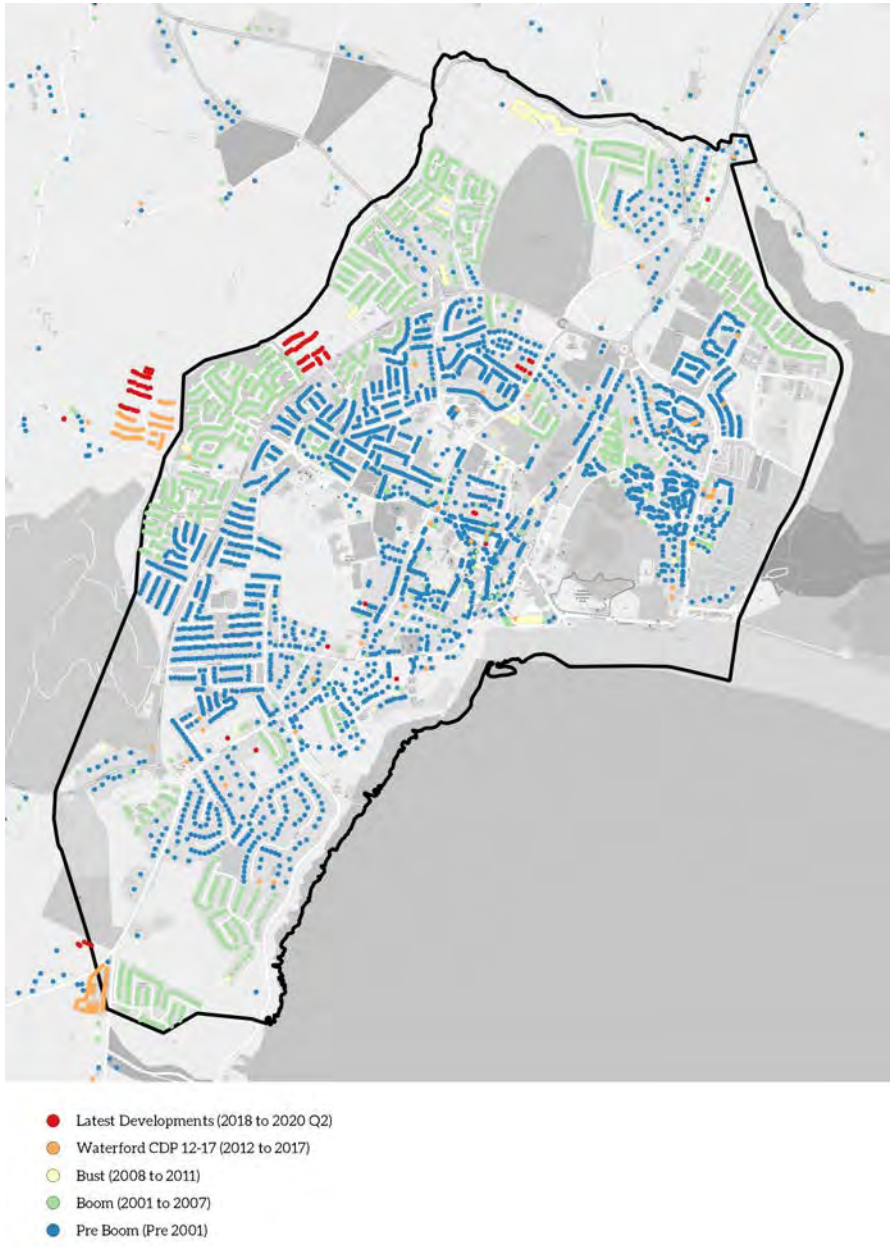


Mode of Travel

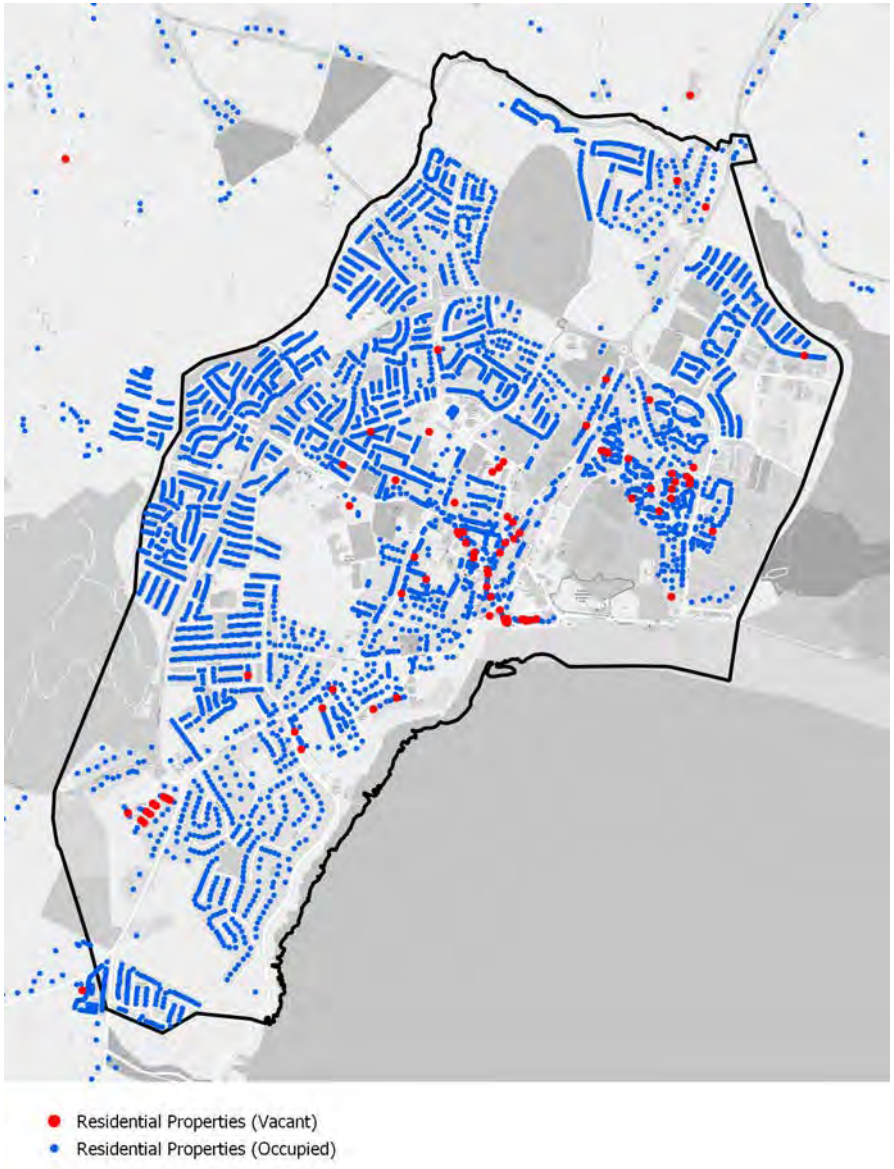


Tramore

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



Dunmore East

Population

Total	% Waterford Total
1,808	1.6%

Housing Tenure

Stock	% Waterford Total
1,139	2.2%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
2,002	+194 or 10.7%	2.5 Persons per Hhld	+78

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 8,991 PE Plant
- Wastewater Treatment Spare Capacity (2017): 5,756 PE
- Public Water Capacity: Capacity Available. (Killea)

*PE: Refers to Population equivalent or unit per capita loading

Dunmore East Facilities

Education

Creche	Primary School	Secondary
2	2	0

Health

GP	Health Centre	Pharmacy	Dentist
1	1	1	0

Travel

Bus Stops	Rail Station
20	0

Services

Fire Station	Garda Station	Post Office	Library
1	1	1	1

Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	2

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Discount: Aldi, Lidl
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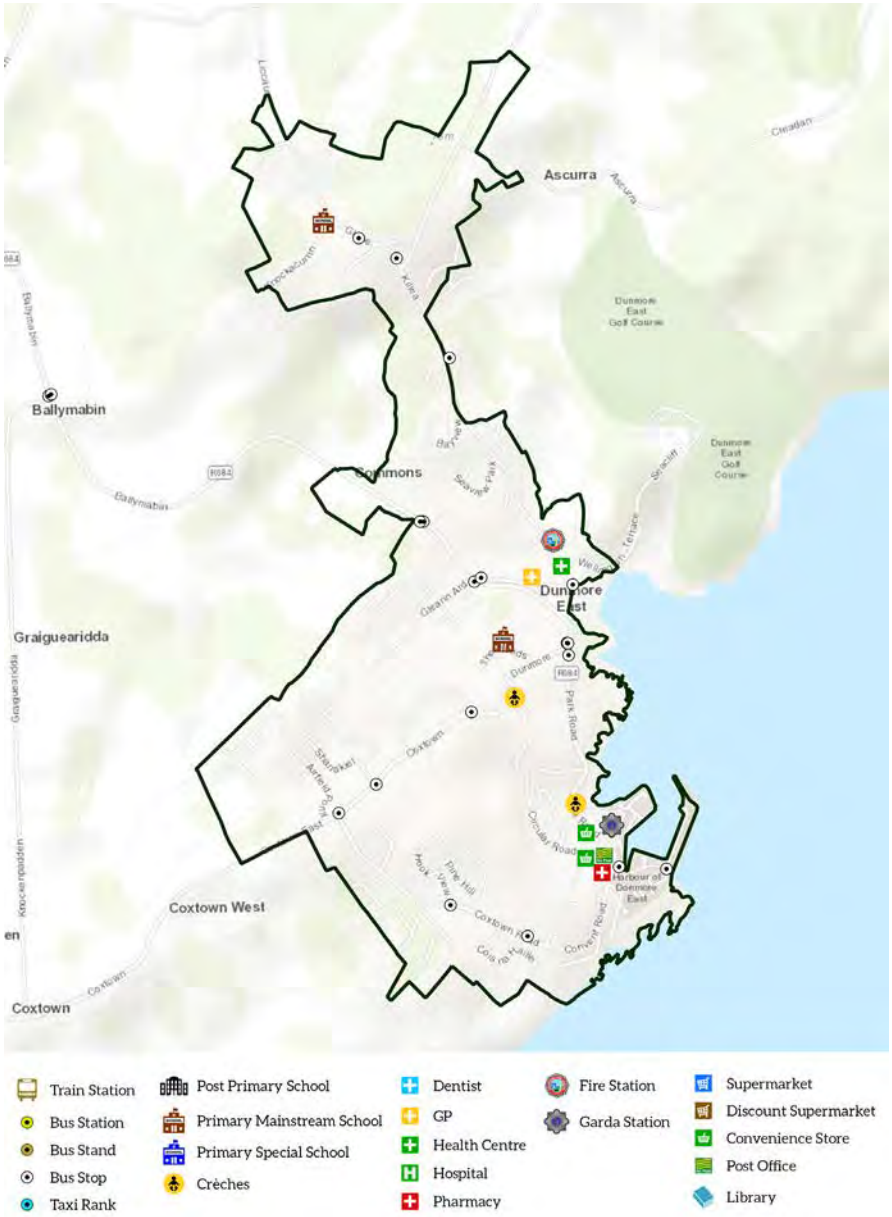
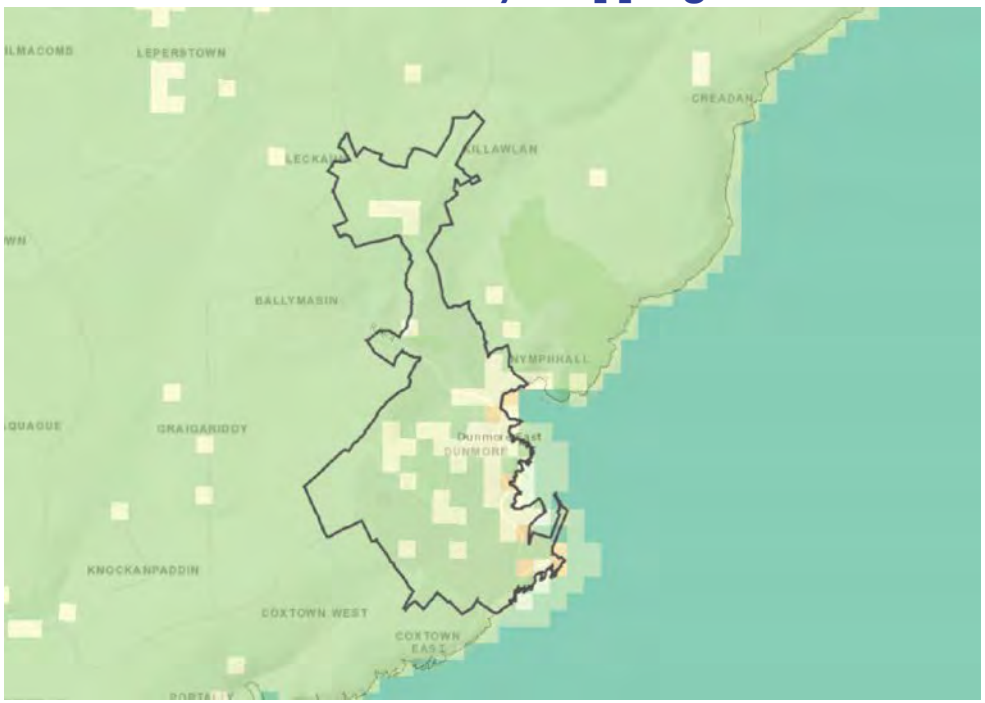
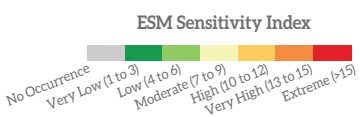
Dunmore East

Settlement Facility Profile



Environmental Sensitivity Mapping





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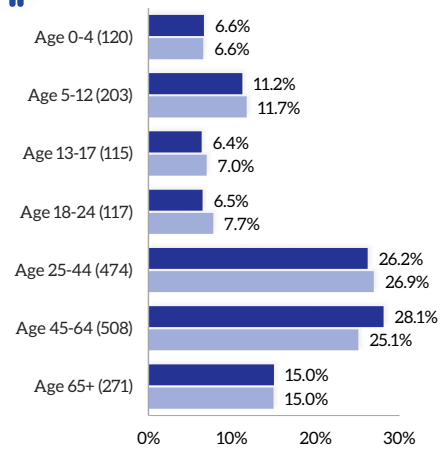
Dunmore East

Key socio-economic overview, 2016

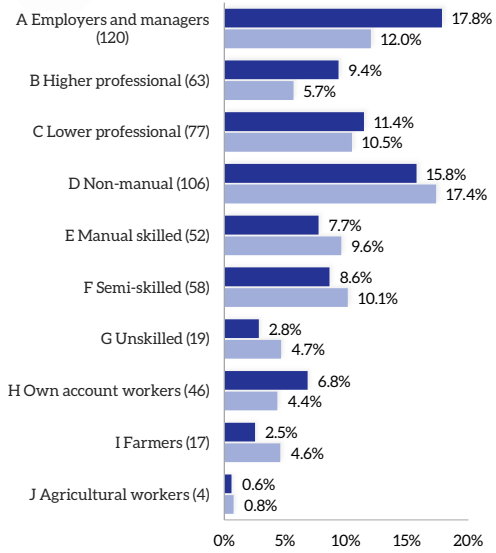
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



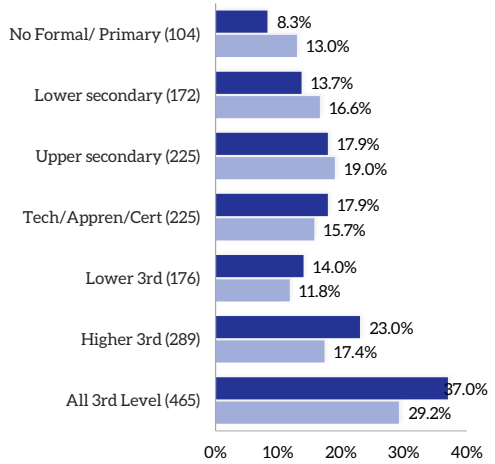
Socio-Economic Group



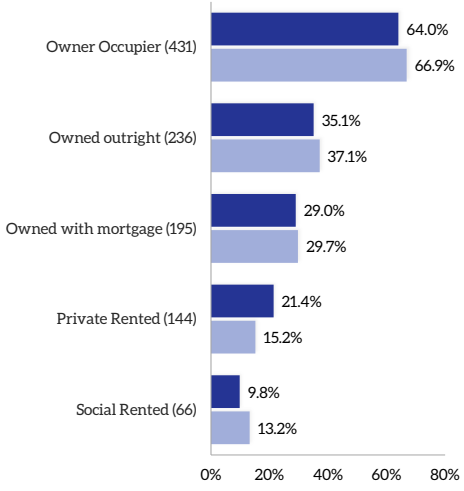
Total Population

Total	% Waterford Total
1,808	1.6%

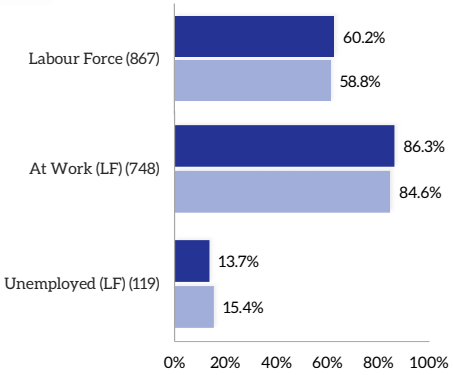
Education Attainment



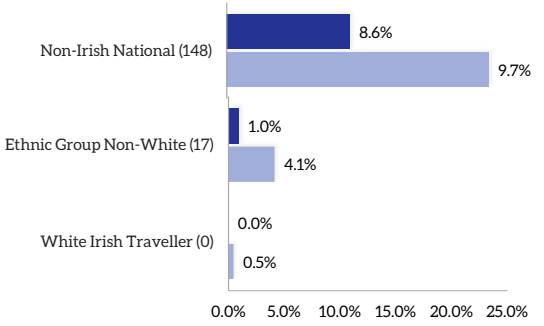
Housing Tenure



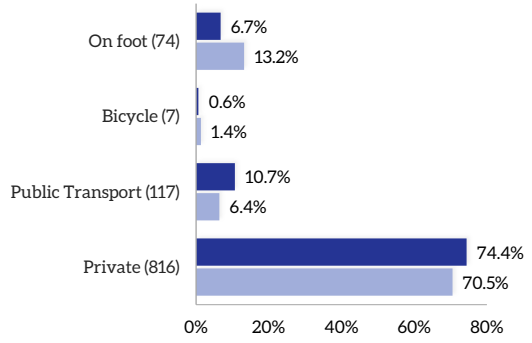
Labour Force



Nationality & Ethnicity



Mode of Travel



Dunmore East

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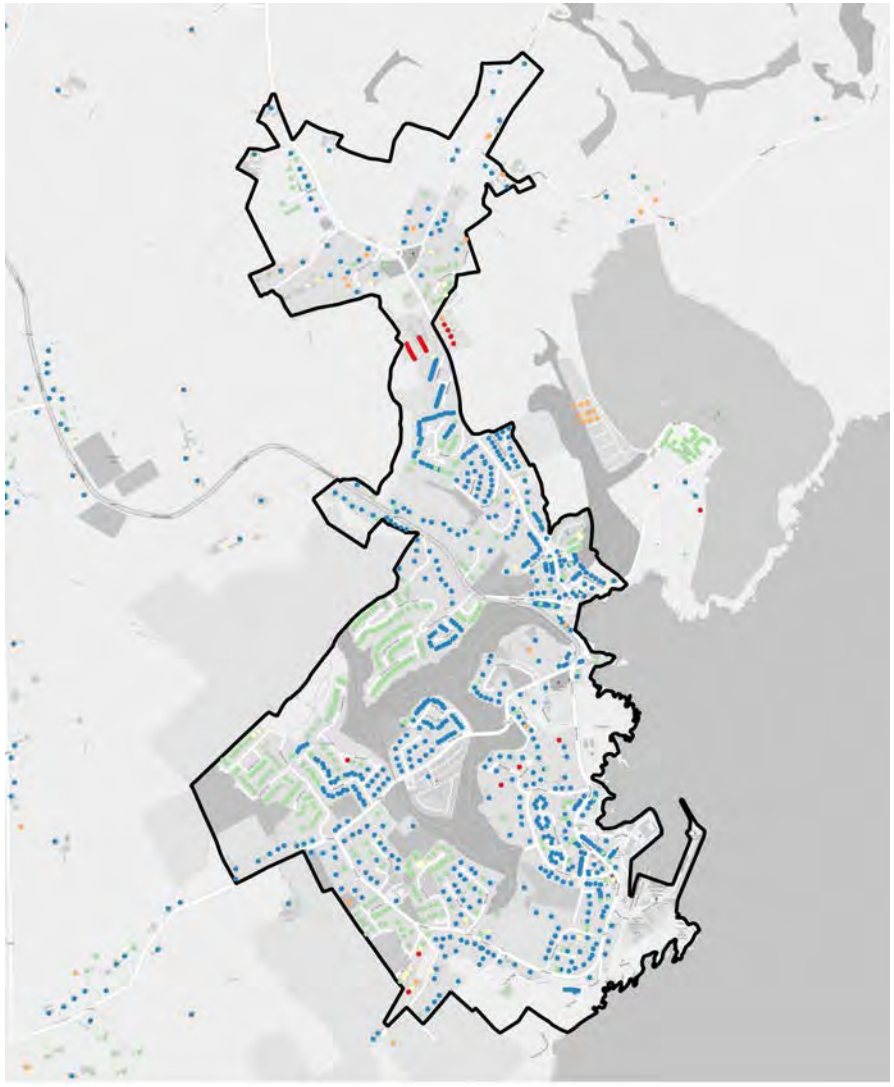

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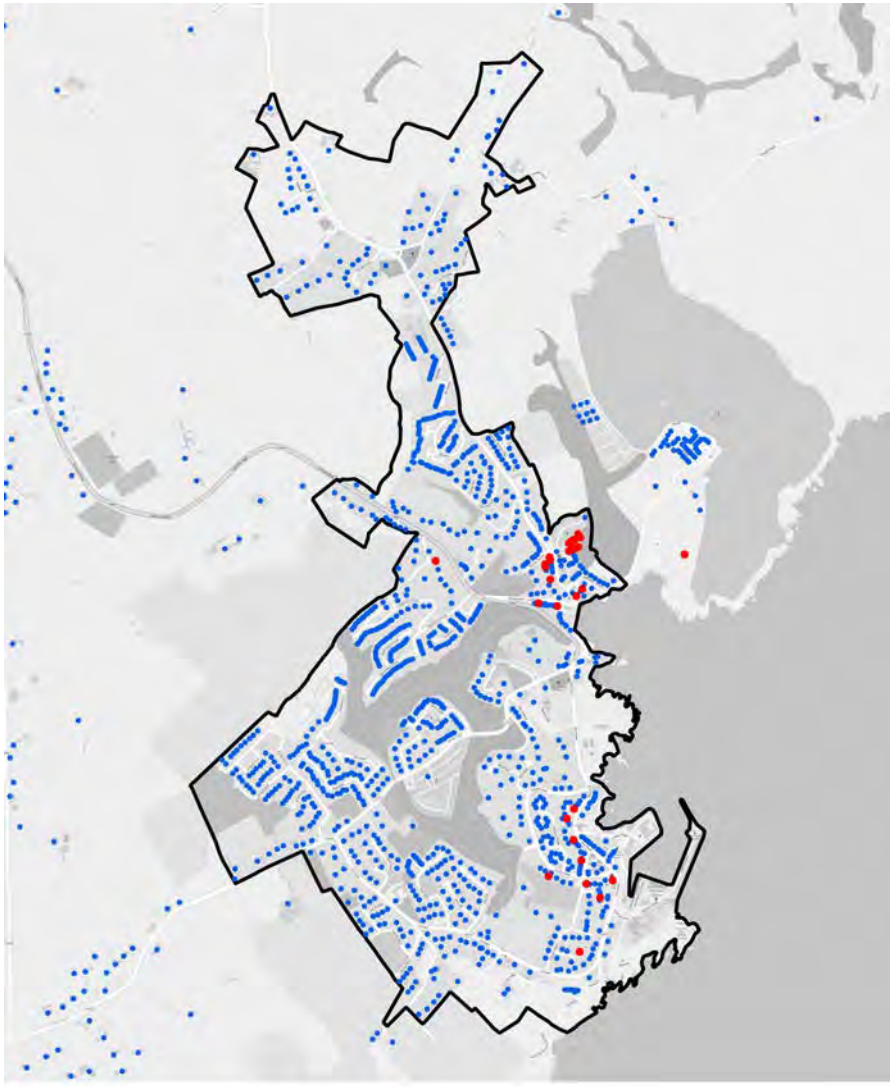

Portlaw

Population

Total	% Waterford Total
1,742	1.5%

Housing Tenure

Stock	% Waterford Total
718	1.4%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
1,929	+187 or 10.7%	2.5 Persons per Hhld	+75

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 1,600 PE with upgrade to 2,500 PE by 2021*
- Wastewater Treatment Spare Capacity (2017): 414 PE
- Public Water Capacity: Capacity TBC

*PE: Refers to Population equivalent or unit per capita loading

Portlaw Facilities

Education		Health		Travel		Services		Retail*	
Creche	2	GP	1	Bus Stops	1	Fire Station	1	Supermarket	0
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	1			Post Office	1	Convenience	1
		Dentist	0			Library	0		

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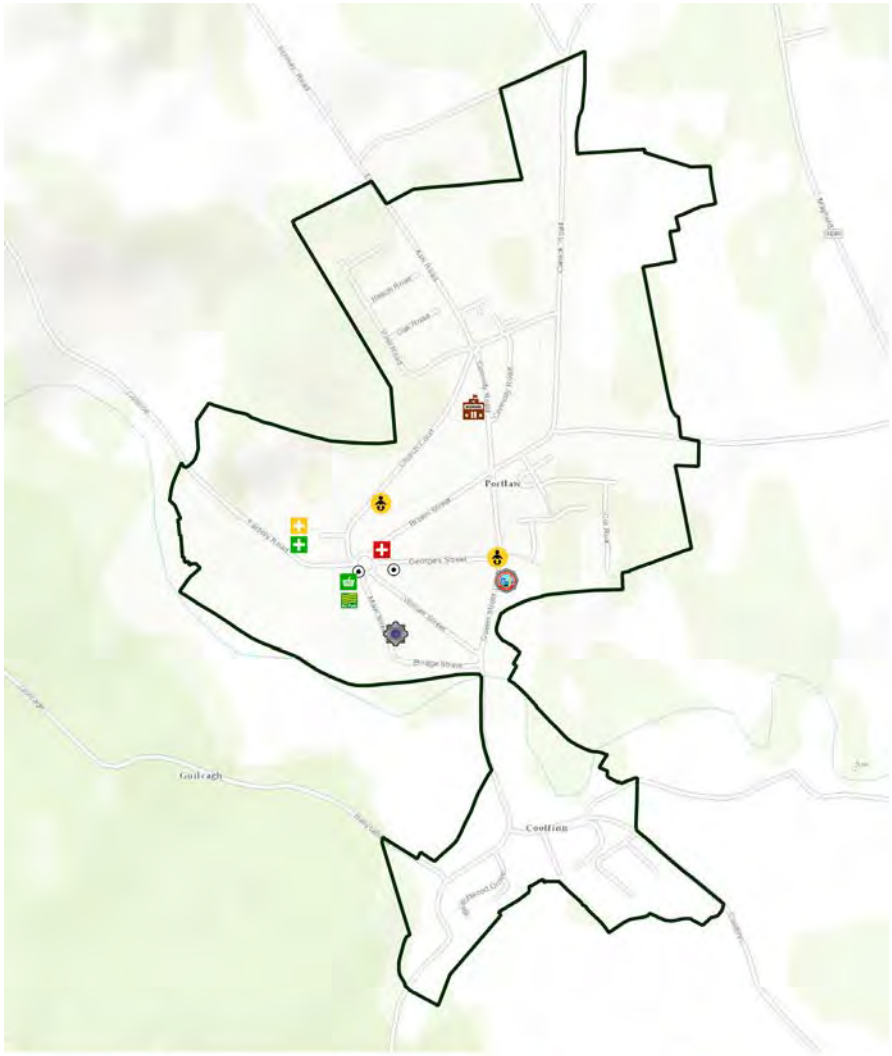
Portlaw

Settlement Facility Profile



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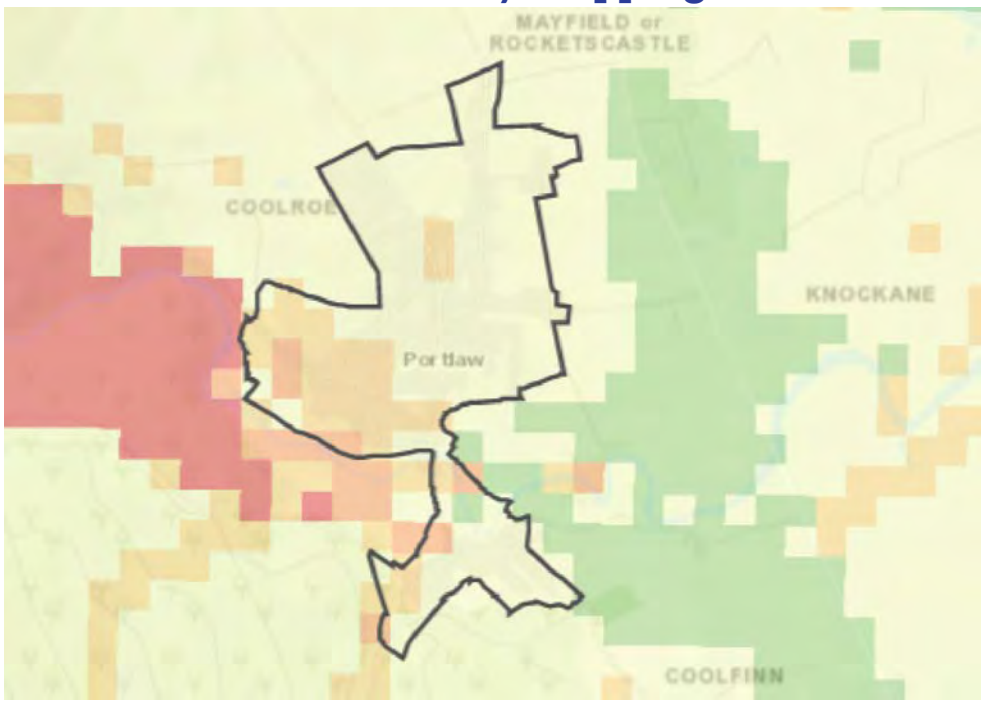

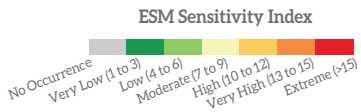

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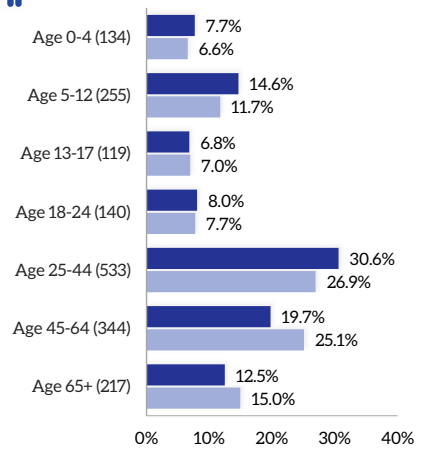
Portlaw

Key socio-economic overview, 2016

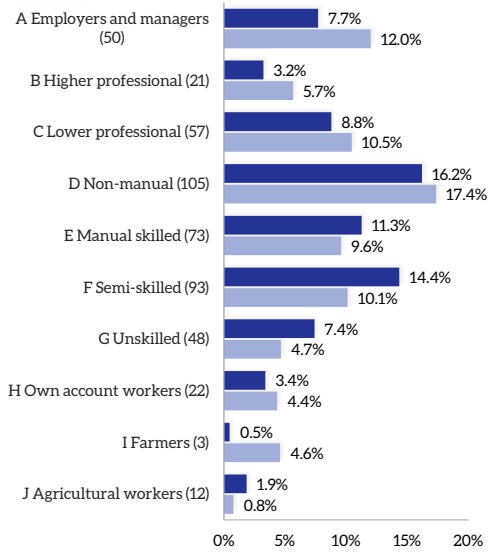
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



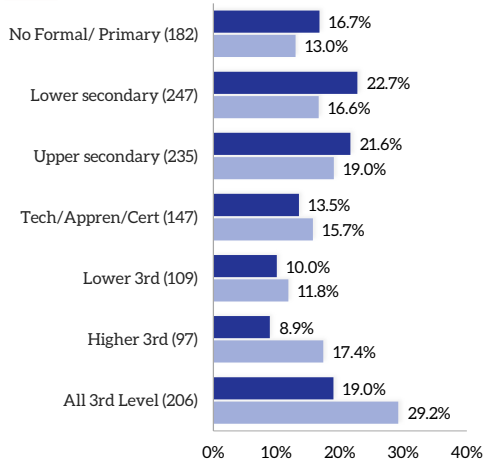
Socio-Economic Group



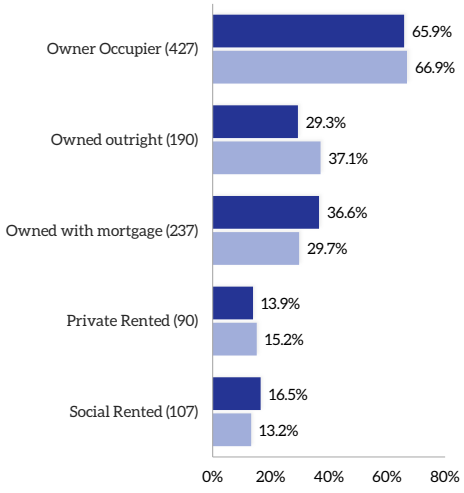
Total Population

Total	% Waterford Total
1742	1.5%

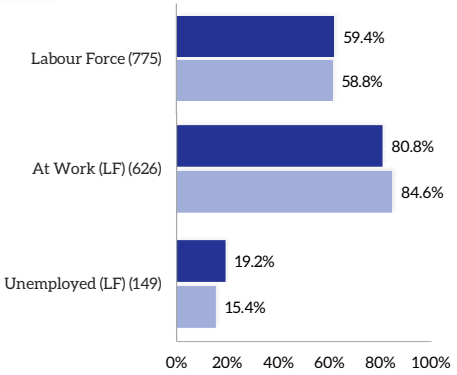
Education Attainment



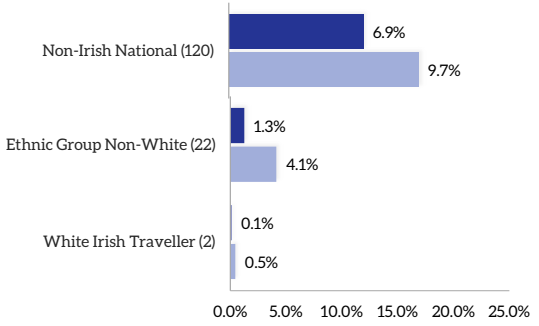
Housing Tenure



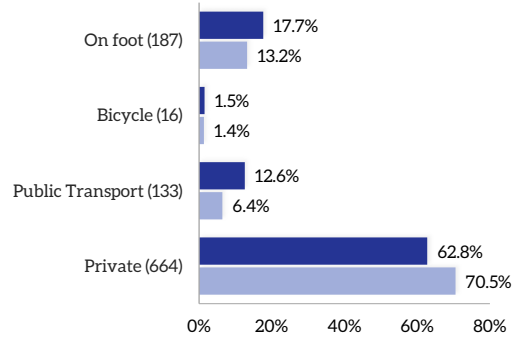
Labour Force



Nationality & Ethnicity



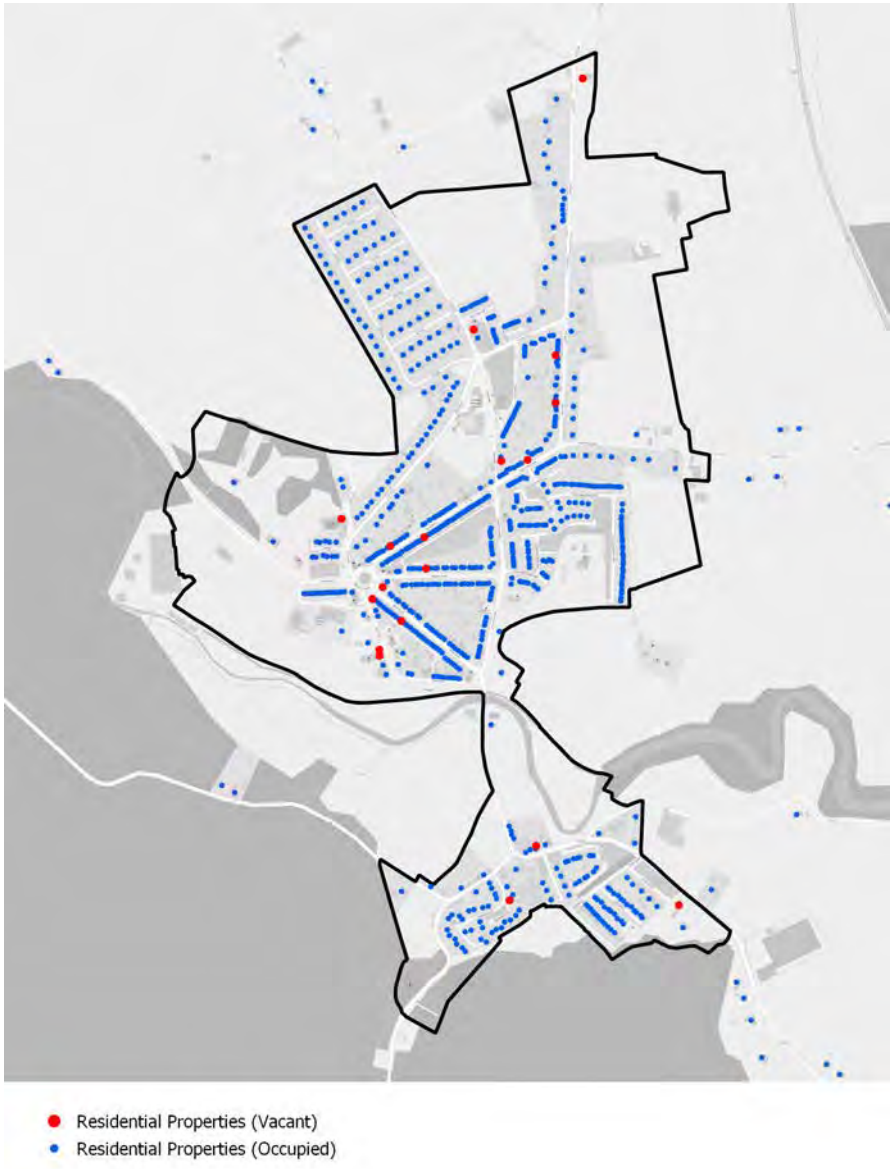
Mode of Travel



Portlaw

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)



Lismore

Population

Total	% Waterford Total
1,347	1.2%

Housing Tenure

Stock	% Waterford Total
728	1.4%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
1,521	+174 or 13%	2.5 Persons per Hhld	+70

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 3,000 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 586 PE
- Public Water Capacity: Capacity needs review

*PE: Refers to Population equivalent or unit per capita loading

Lismore Facilities

Education		Health		Travel	Services		Retail*	
Creche	1	GP	2	Bus Stops	6	Fire Station	1	Supermarket	0
Primary School	2	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	1	Pharmacy	1			Post Office	1	Convenience	0
		Dentist	1			Library	1		

*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
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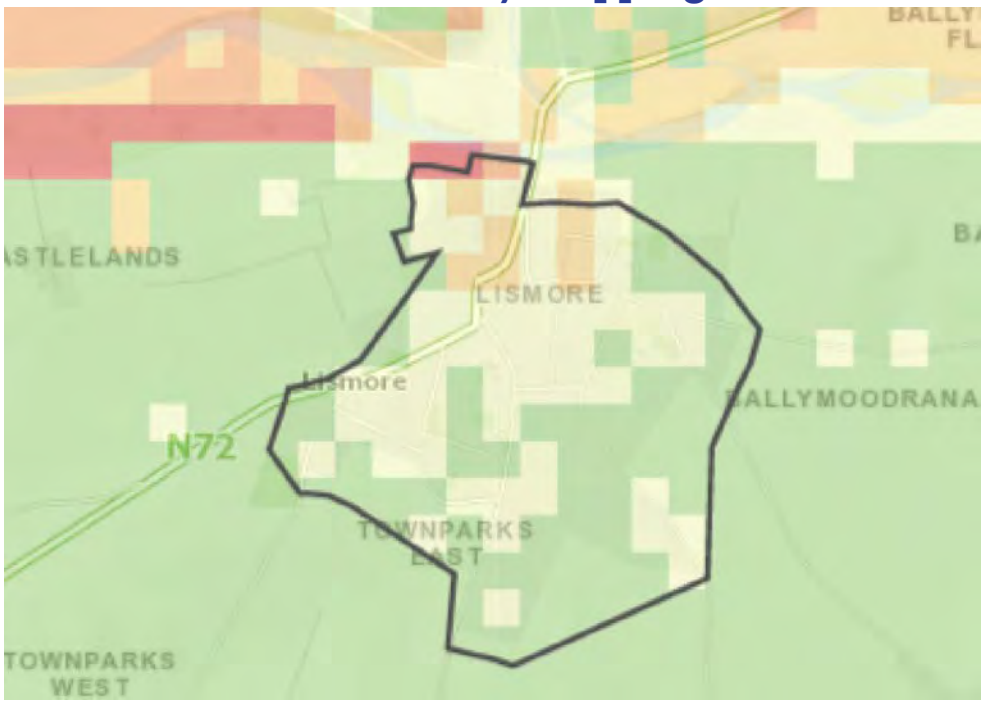
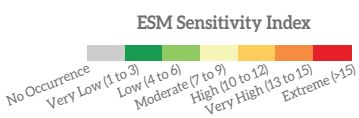
Lismore

Settlement Facility Profile

Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

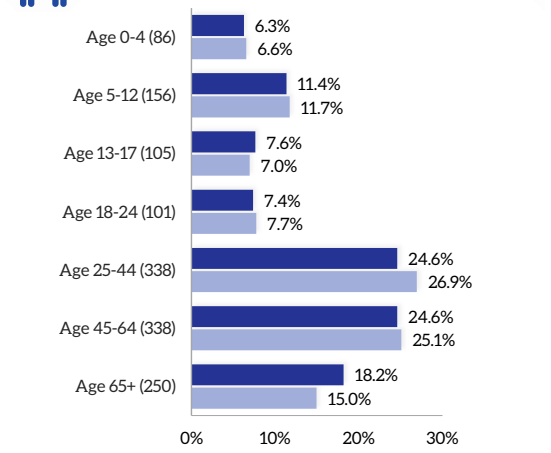
Lismore

Key socio-economic overview, 2016

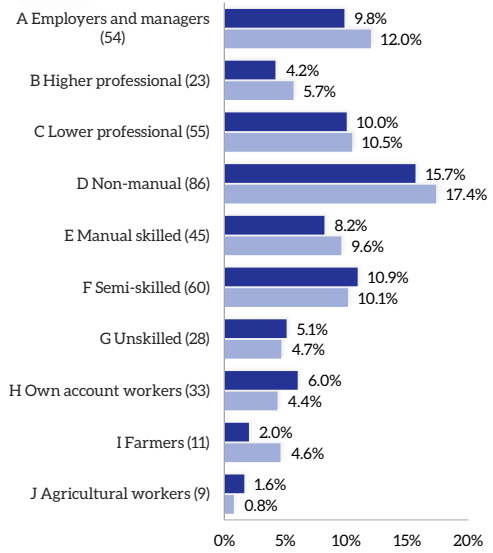
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



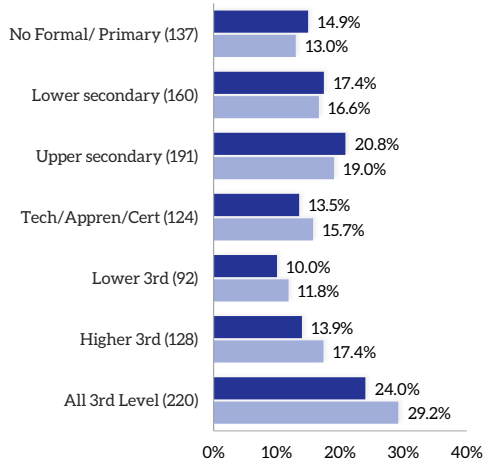
Socio-Economic Group



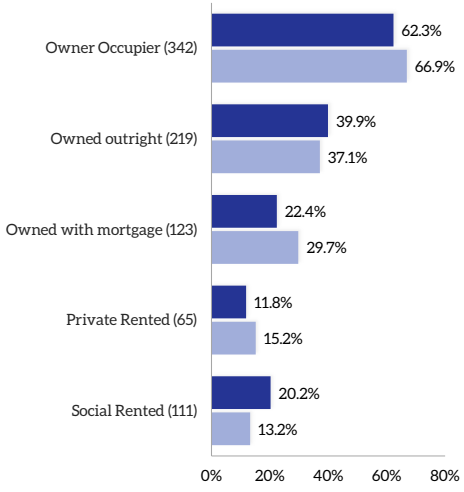
Total Population

Total	% Waterford Total
1,374	1.2%

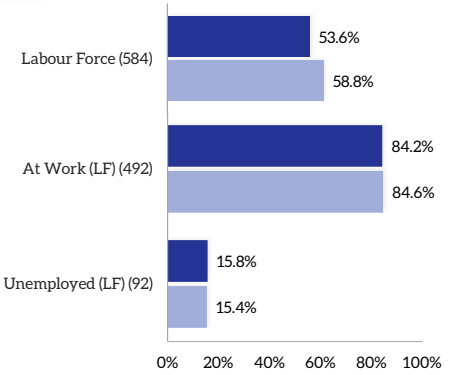
Education Attainment



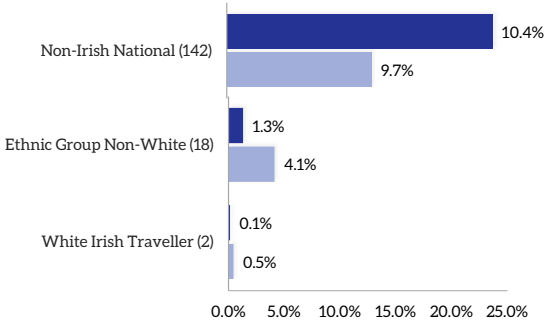
Housing Tenure



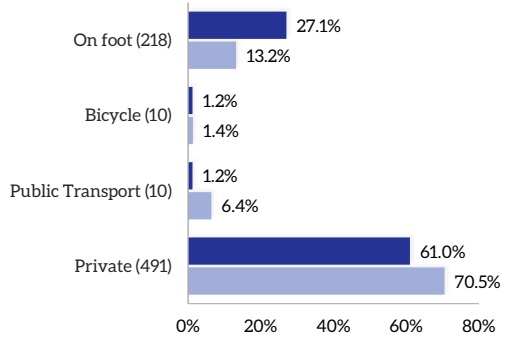
Labour Force



Nationality & Ethnicity



Mode of Travel



Lismore

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)

Tallow

Population

Total	% Waterford Total
946	0.8%

Housing Tenure

Stock	% Waterford Total
467	0.9%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
1,106	+160 or 16.9%	2.7 Persons per Hhld	+59

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 2,186 PE PE
- Wastewater Treatment Spare Capacity (2017): 708 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Tallow Facilities

Education		Health		Travel	Services		Retail*	
Creche	1	GP	1	Bus Stops	2	Fire Station	1	Supermarket	0
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	1			Post Office	1	Convenience	2
		Dentist	0			Library	1		

***Supermarket:** Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
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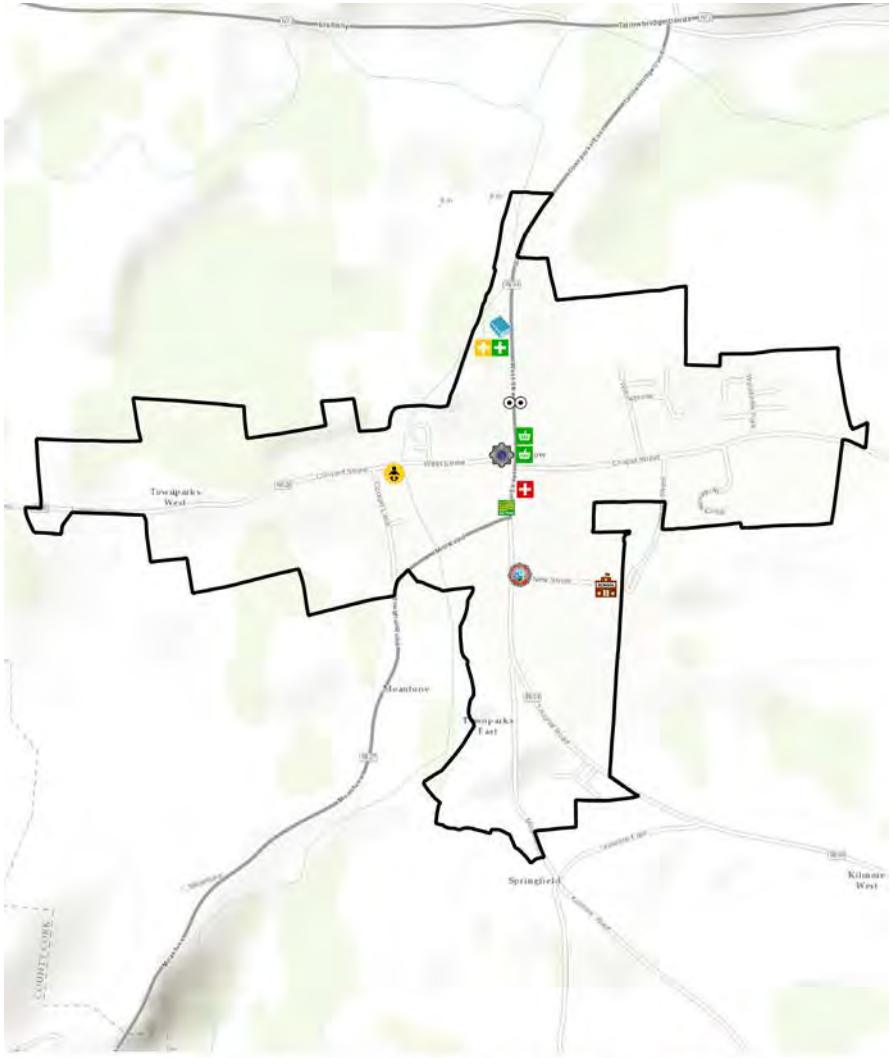
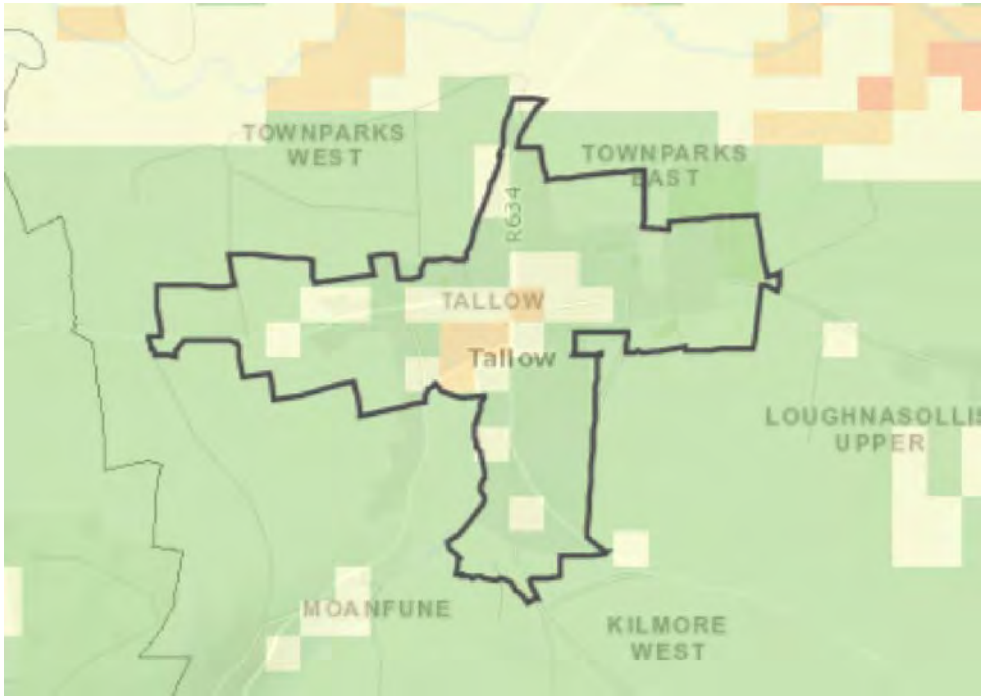
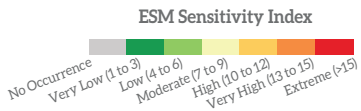
Tallow

Settlement Facility Profile



Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

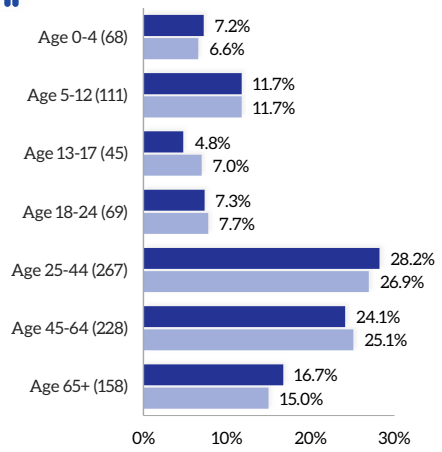
Tallow

Key socio-economic overview, 2016

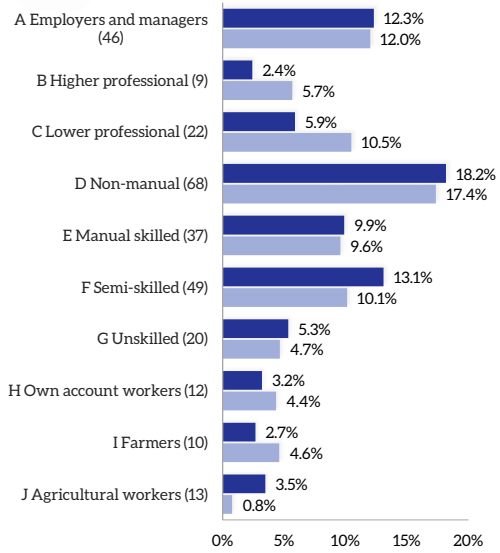
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



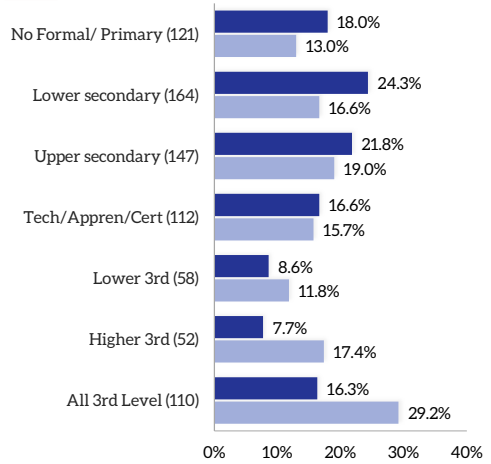
Socio-Economic Group



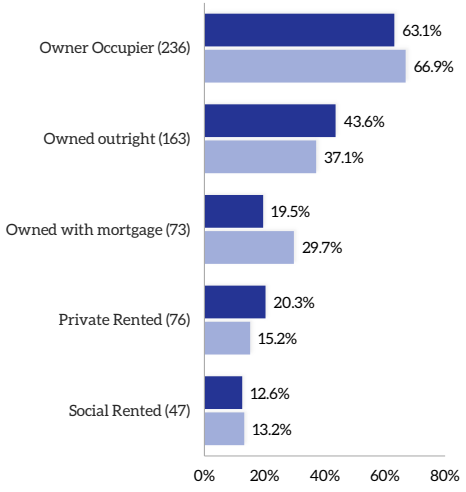
Total Population

Total	% Waterford Total
946	0.8%

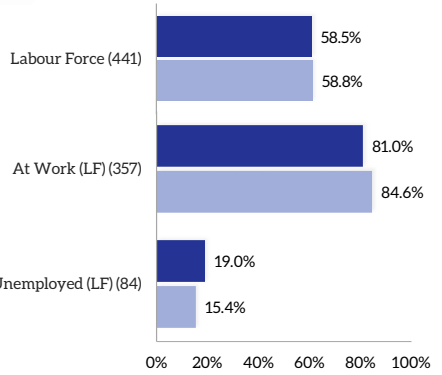
Education Attainment



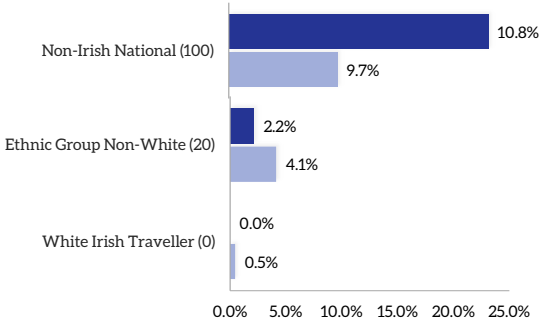
Housing Tenure



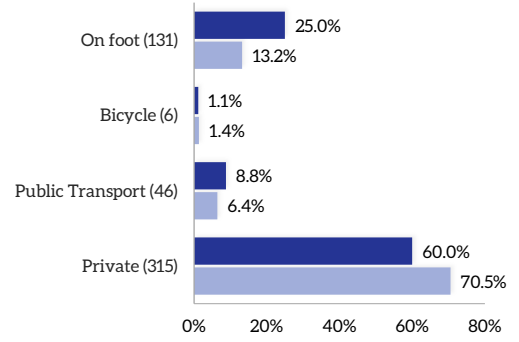
Labour Force



Nationality & Ethnicity

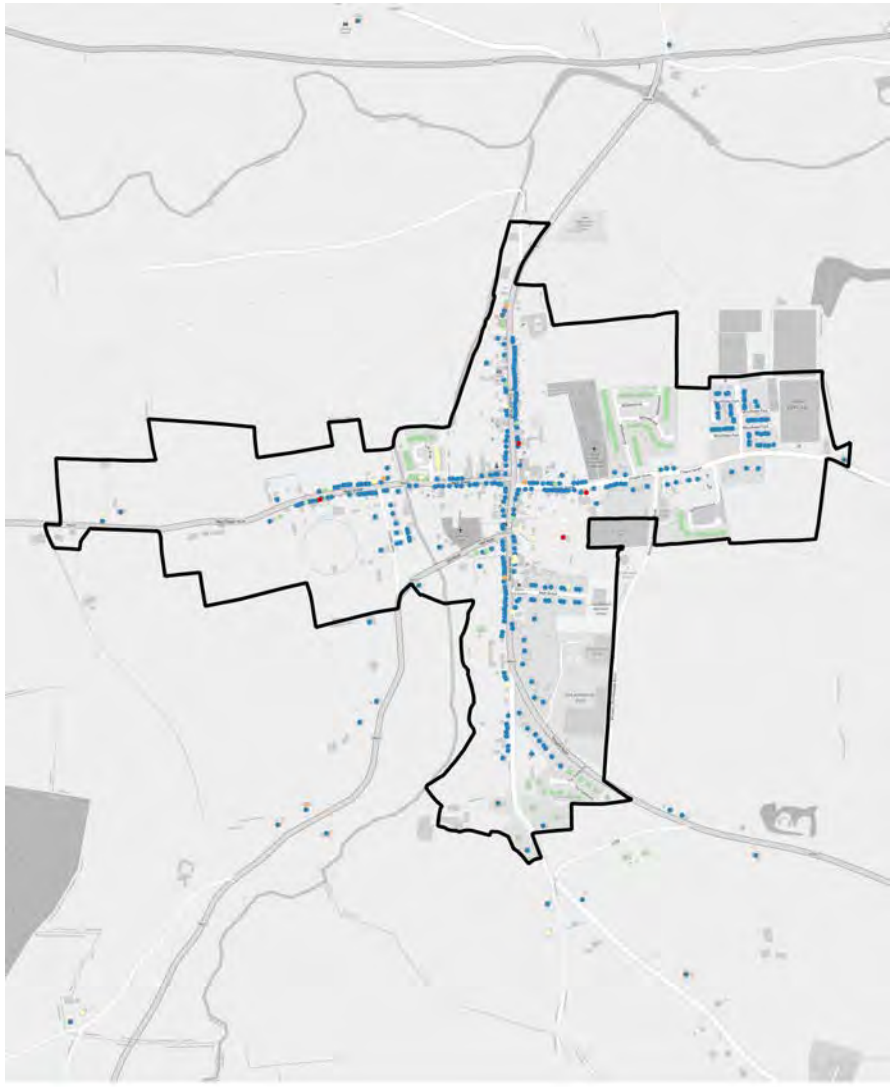


Mode of Travel

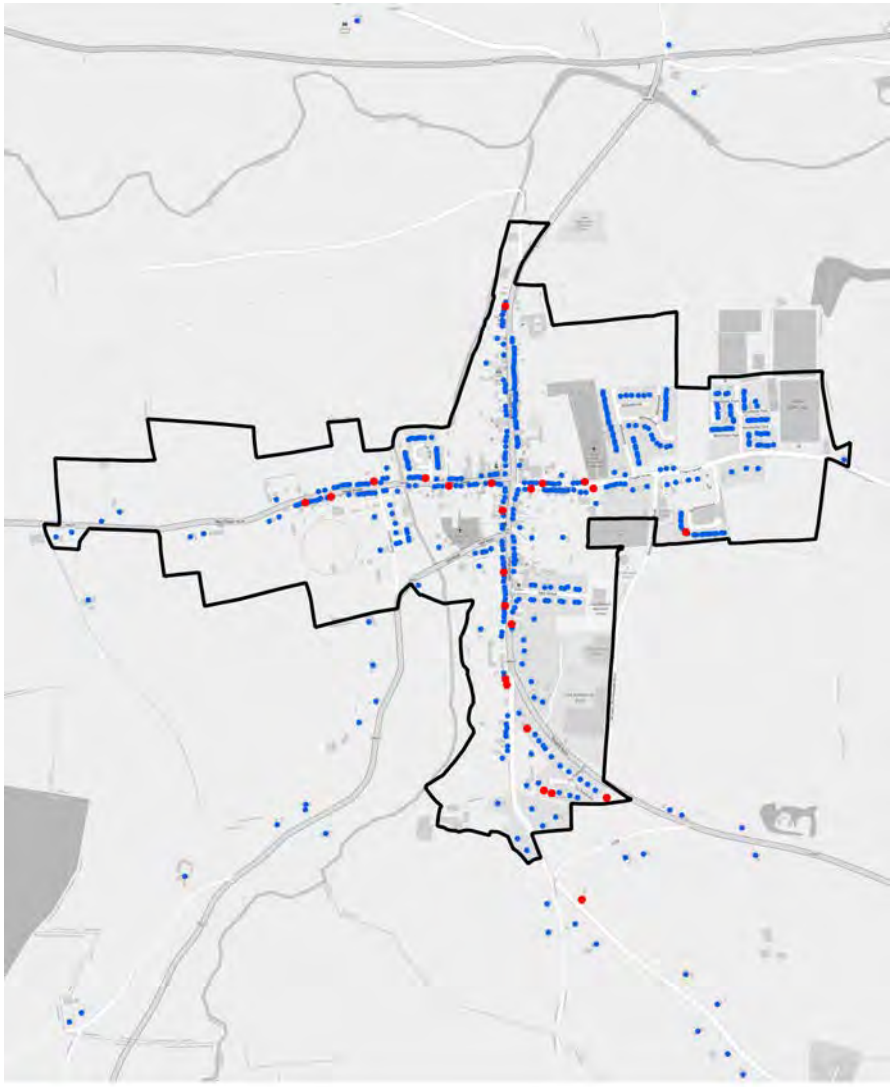


Tallow

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



Kilmacthomas

Population

Total	% Waterford Total
834	0.7%

Housing Tenure

Stock	% Waterford Total
389	0.7%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
975	+141 or 16.9%	2.7 Persons per Hhld	+52

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 2,100 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 883 PE
- Public Water Capacity: Capacity needs review

*PE: Refers to Population equivalent or unit per capita loading

Kilmacthomas Facilities

Education		Health		Travel		Services		Retail*	
Creche	1	GP	1	Bus Stops	5	Fire Station	1	Supermarket	0
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
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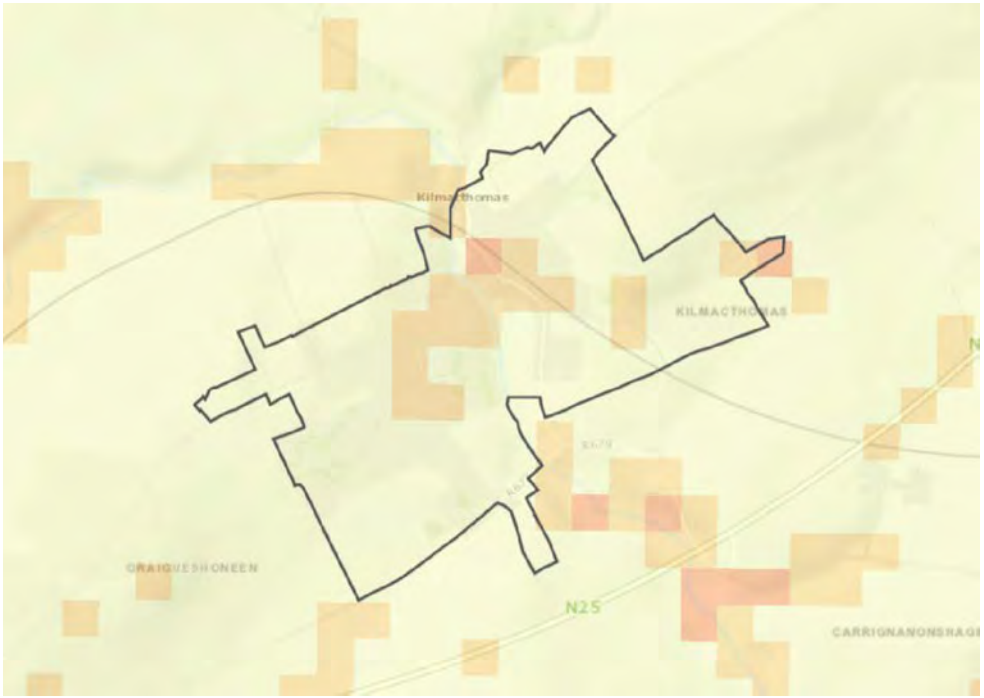
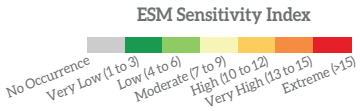
Kilmacthomas

Settlement Facility Profile

Environmental Sensitivity Mapping





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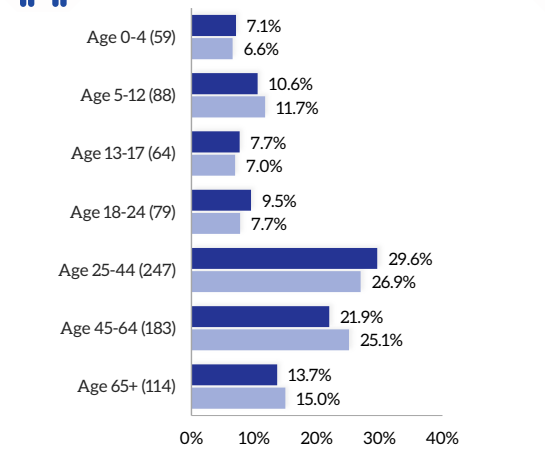
Kilmacthomas

Key socio-economic overview, 2016

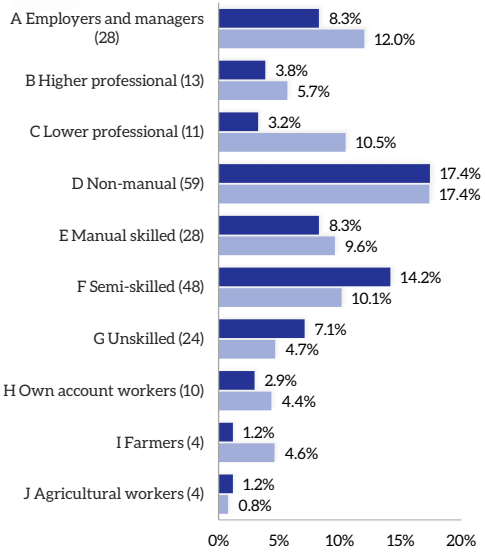
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



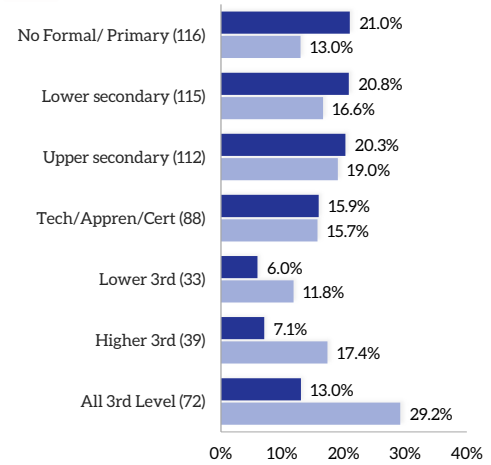
Socio-Economic Group



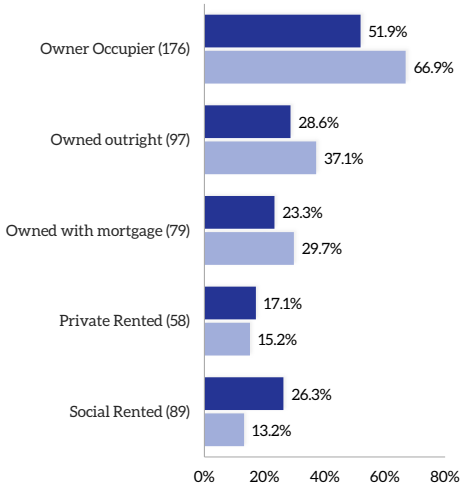
Total Population

Total	% Waterford Total
834	0.7%

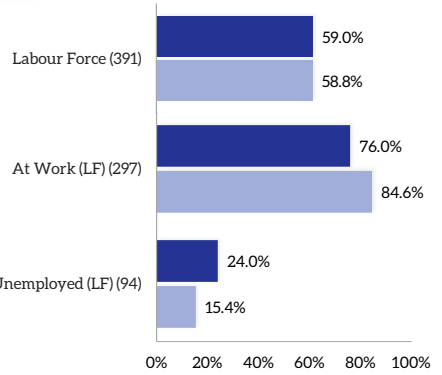
Education Attainment



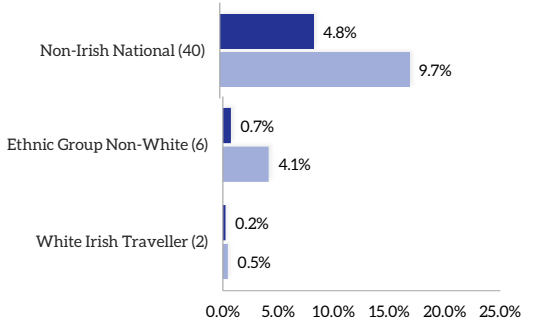
Housing Tenure



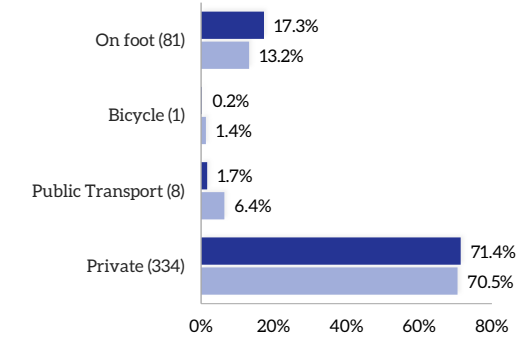
Labour Force



Nationality & Ethnicity



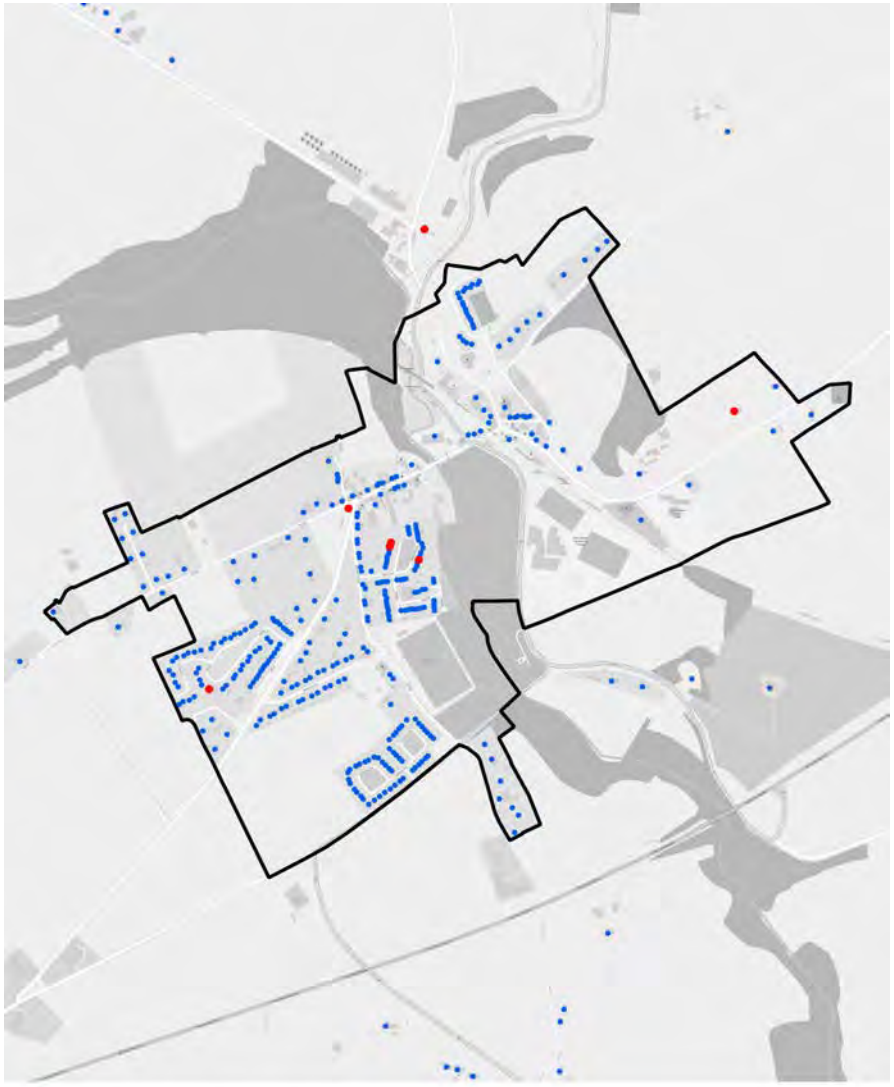
Mode of Travel



Kilmacthomas

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)



Passage East

Population

Total	% Waterford Total
827	0.7%

Housing Tenure

Stock	% Waterford Total
364	0.7%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
967	+140 or 16.9%	2.7 Persons per Hhld	+52

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: No Data
- Wastewater Treatment Spare Capacity (2017): No Data
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

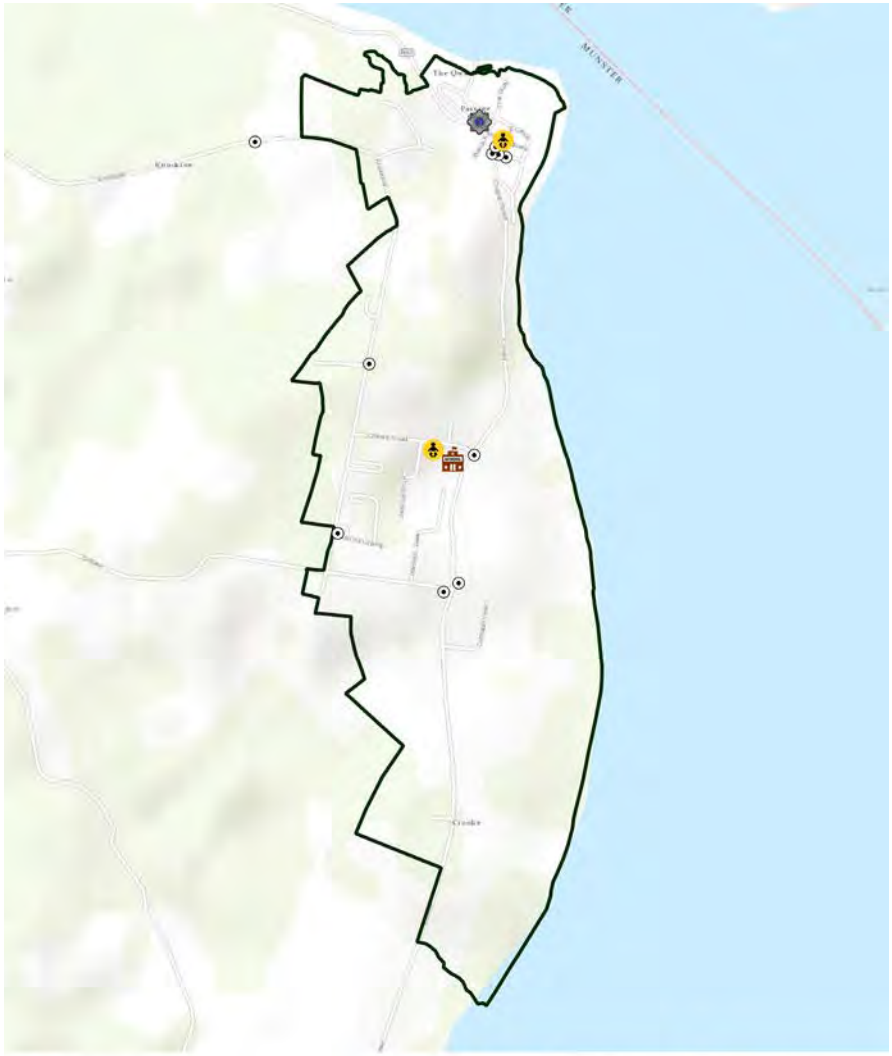
Passage East Facilities

Education		Health		Travel	Services		Retail*	
Creche	2	GP	0	Bus Stops	9	Fire Station	0	Supermarket	0
Primary School	1	Health Centre	0	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	0			Post Office	0	Convenience	0
		Dentist	0			Library	0		

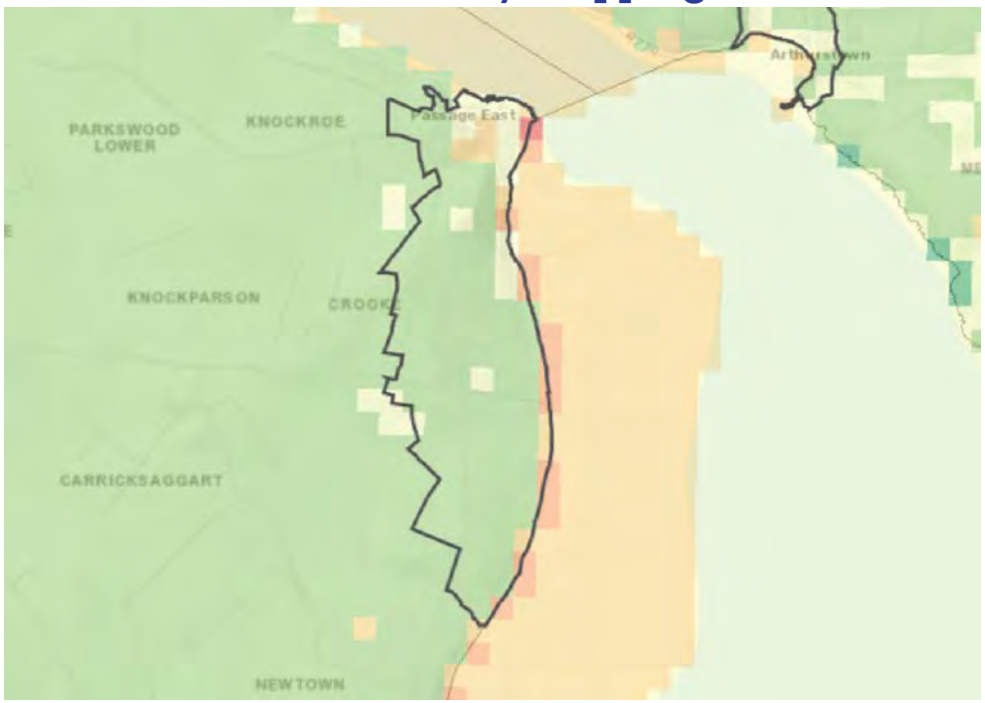
***Supermarket:** Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

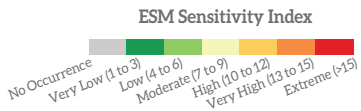
Passage East

Settlement Facility Profile



Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

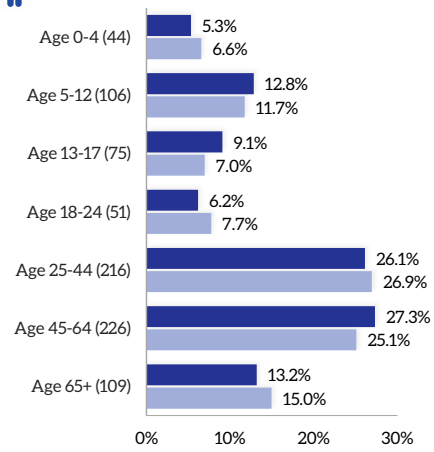
Passage East

Key socio-economic overview, 2016

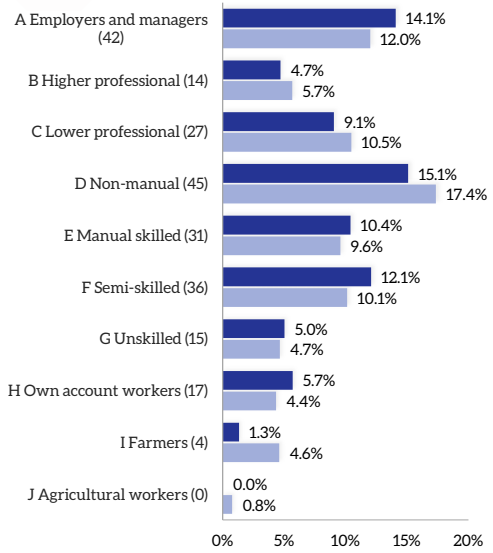
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



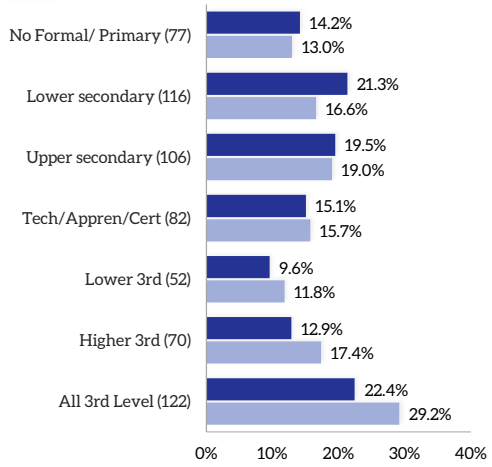
Socio-Economic Group



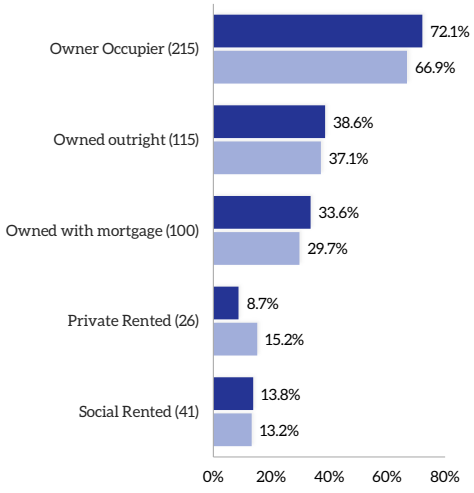
Total Population

Total	% Waterford Total
827	0.7%

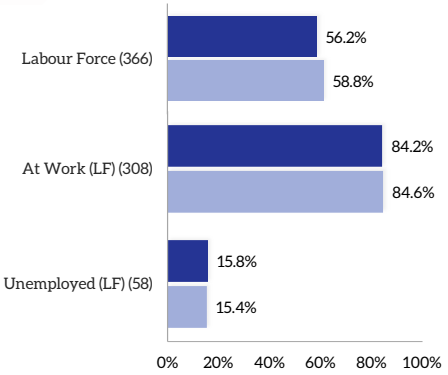
Education Attainment



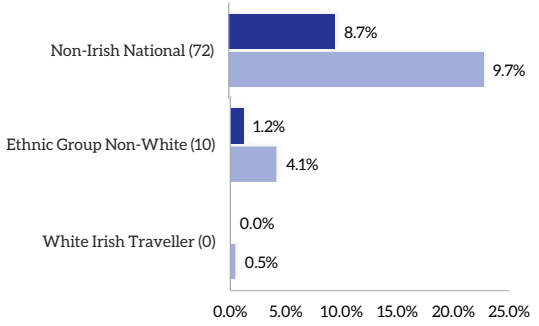
Housing Tenure



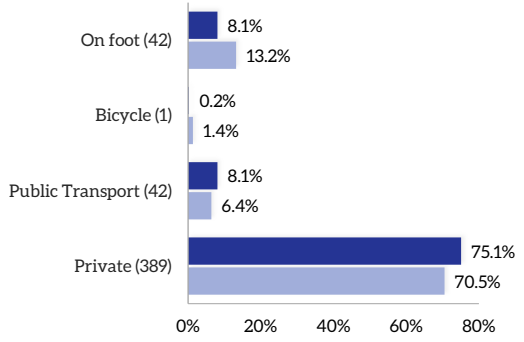
Labour Force



Nationality & Ethnicity

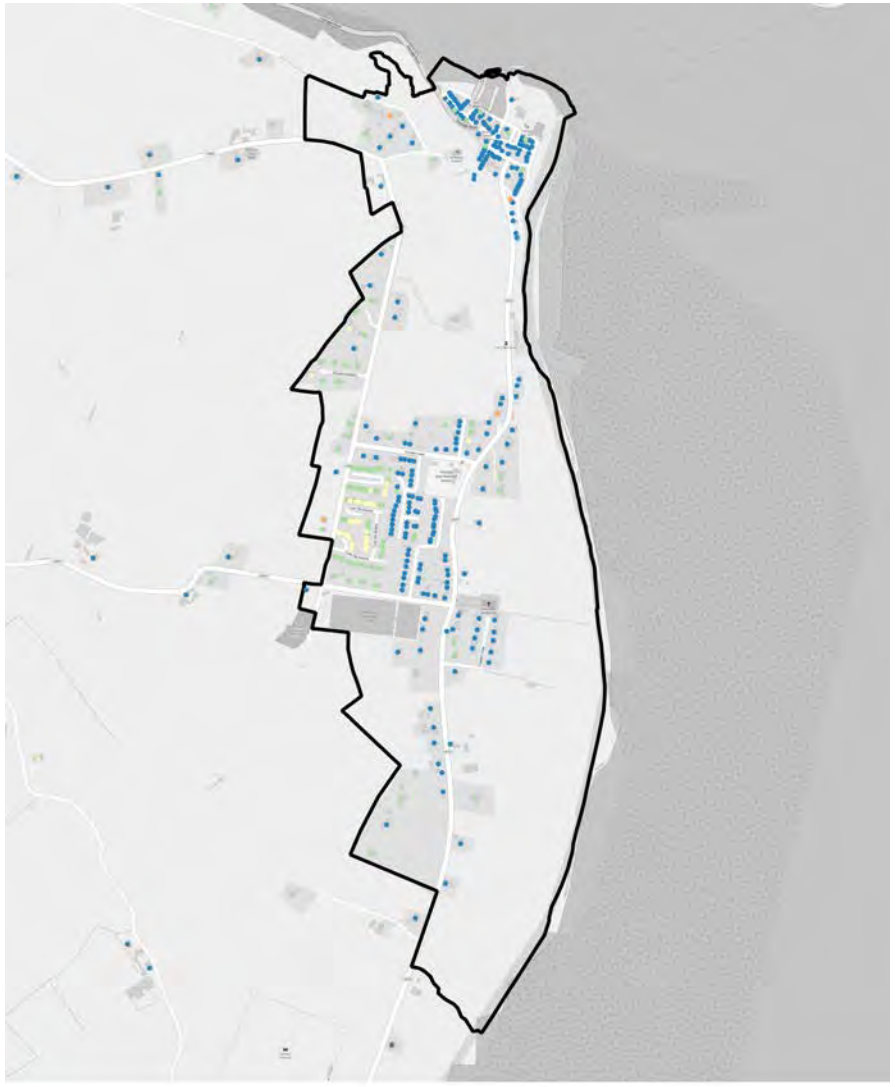


Mode of Travel

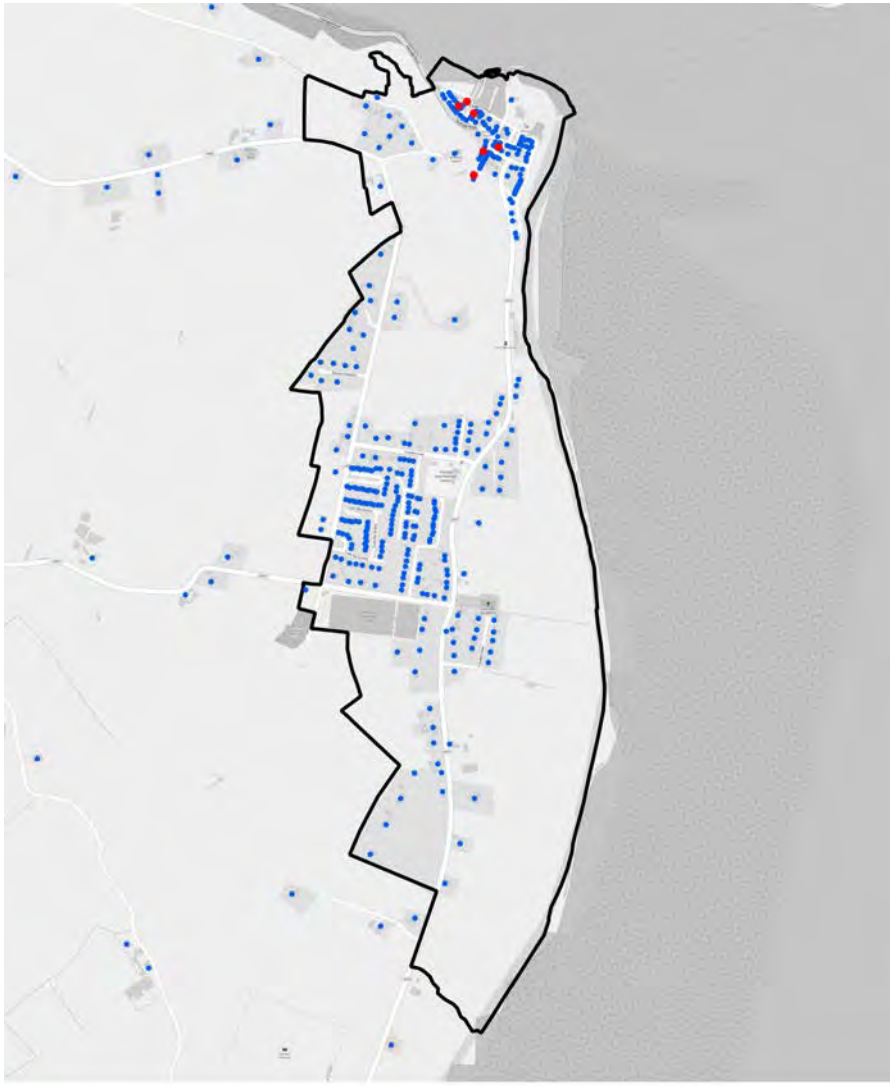


Passage East

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



Cappoquin

Population

Total	% Waterford Total
699	0.6%

Housing Tenure

Stock	% Waterford Total
428	0.8%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
817	+118 or 16.9%	2.7 Persons per Hhld	+44

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 1,750 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 432 PE
- Public Water Capacity: Capacity needs review

*PE: Refers to Population equivalent or unit per capita loading

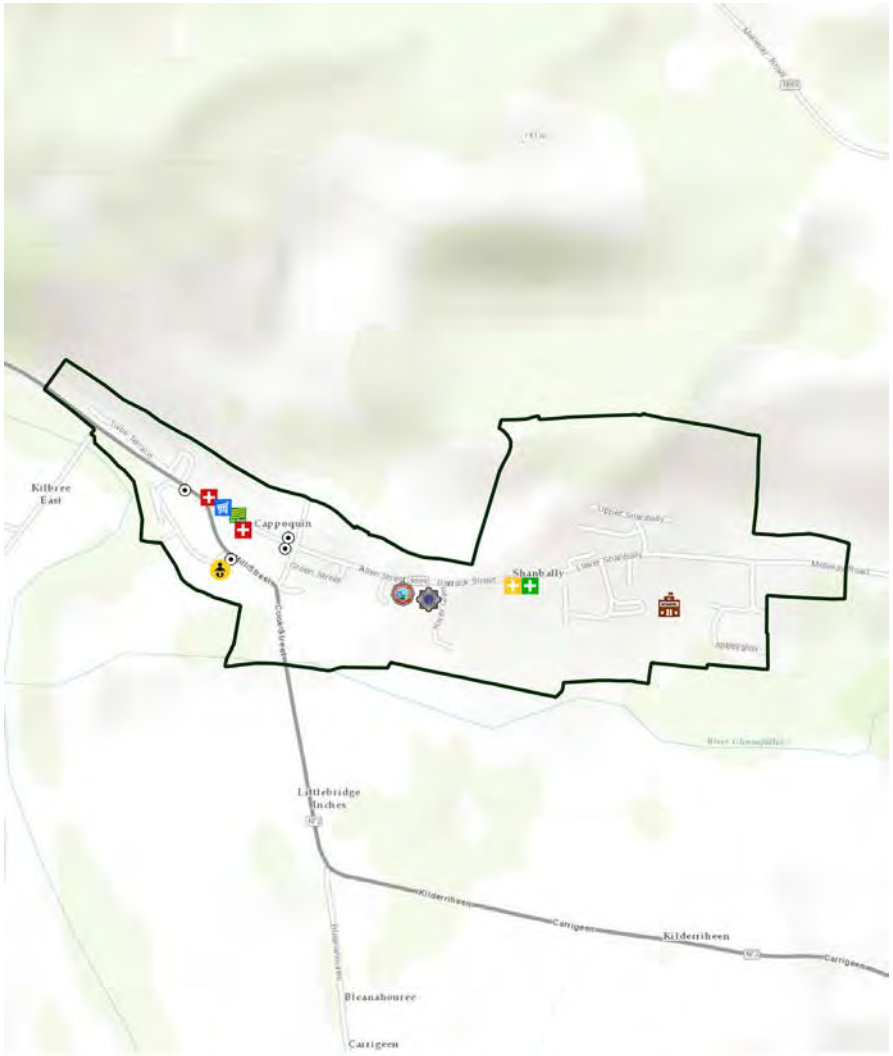
Cappoquin Facilities

Education		Health		Travel		Services		Retail*	
Creche	1	GP	1	Bus Stops	4	Fire Station	1	Supermarket	1
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	2			Post Office	1	Convenience	0
		Dentist	0			Library	0		

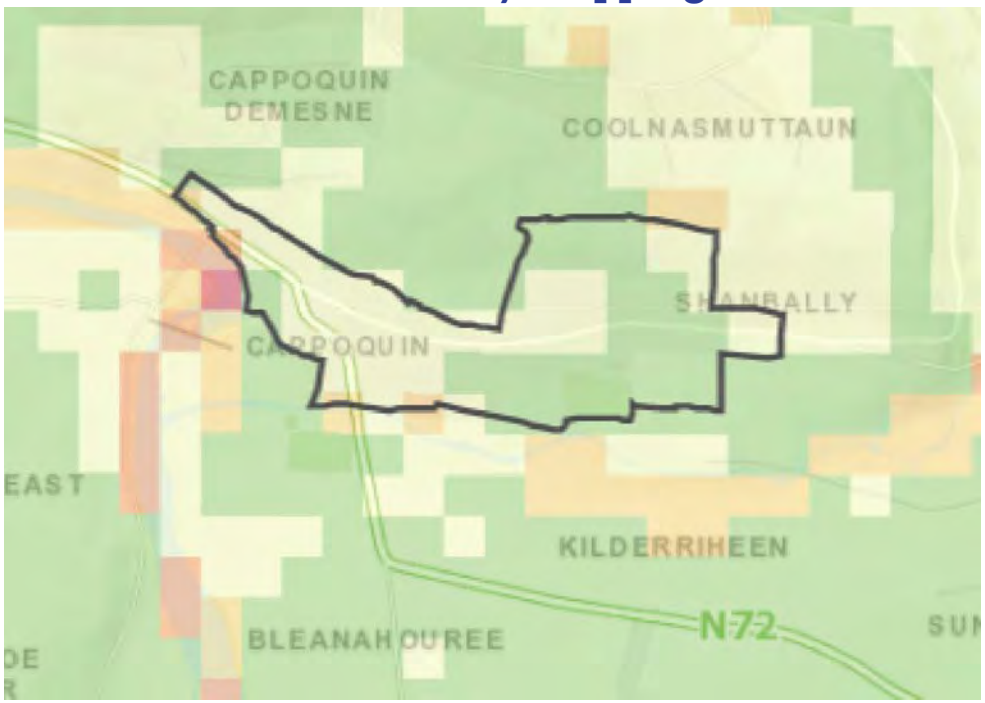
***Supermarket:** Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

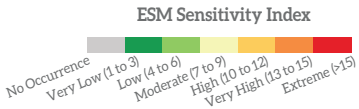
Cappoquin

Settlement Facility Profile



Environmental Sensitivity Mapping





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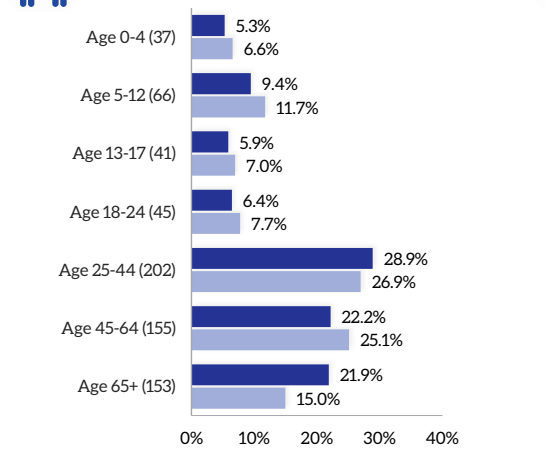
Cappoquin

Key socio-economic overview, 2016

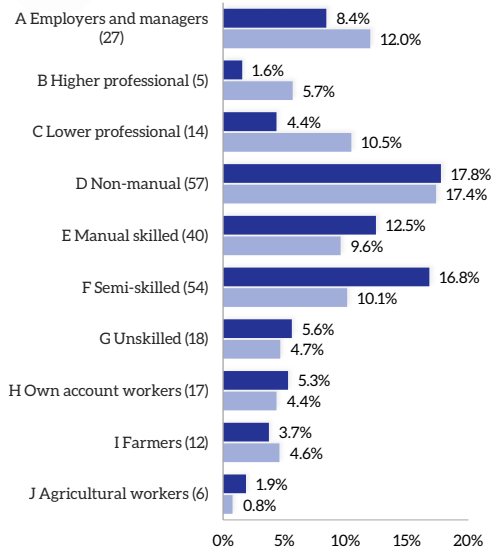
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



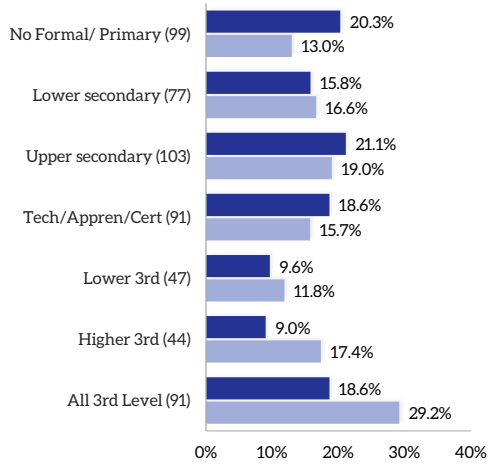
Socio-Economic Group



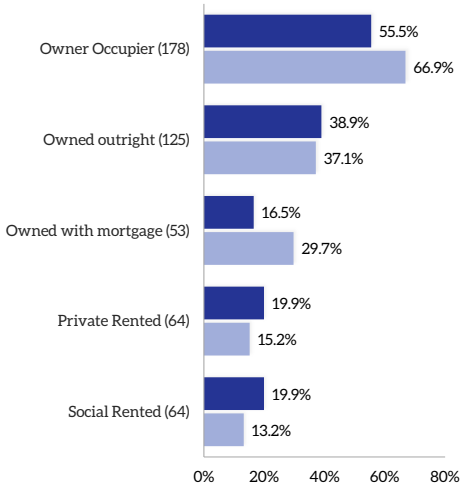
Total Population

Total	% Waterford Total
699	0.6%

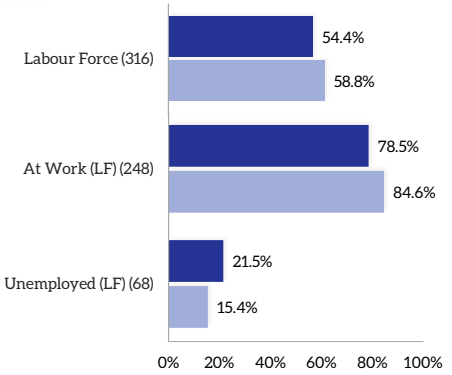
Education Attainment



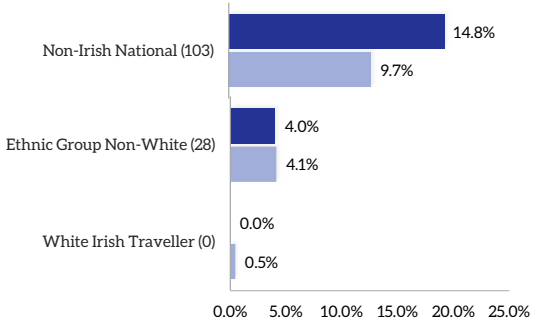
Housing Tenure



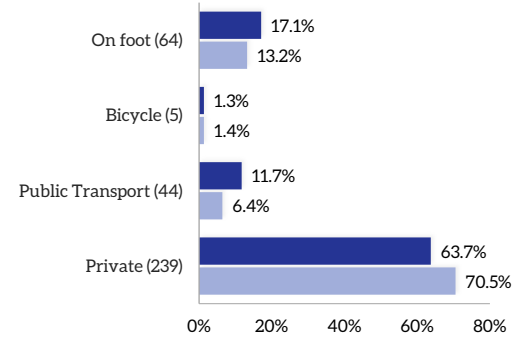
Labour Force



Nationality & Ethnicity

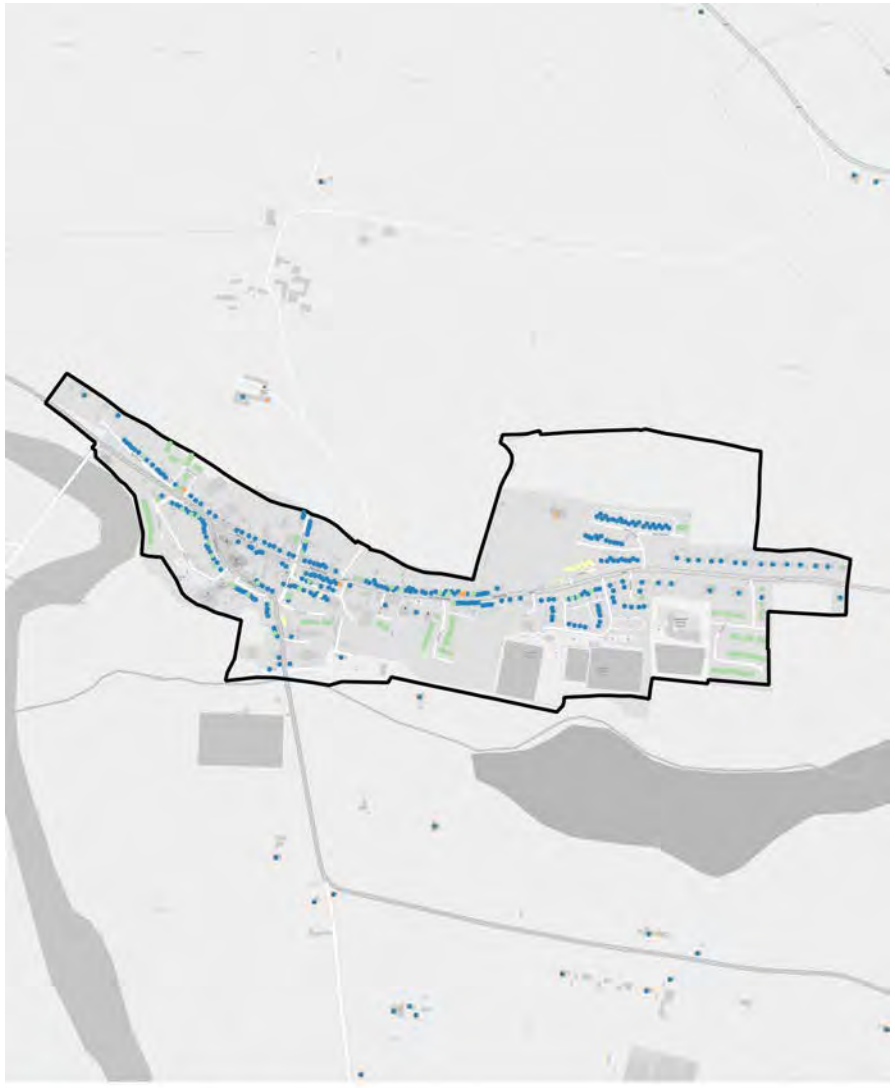


Mode of Travel



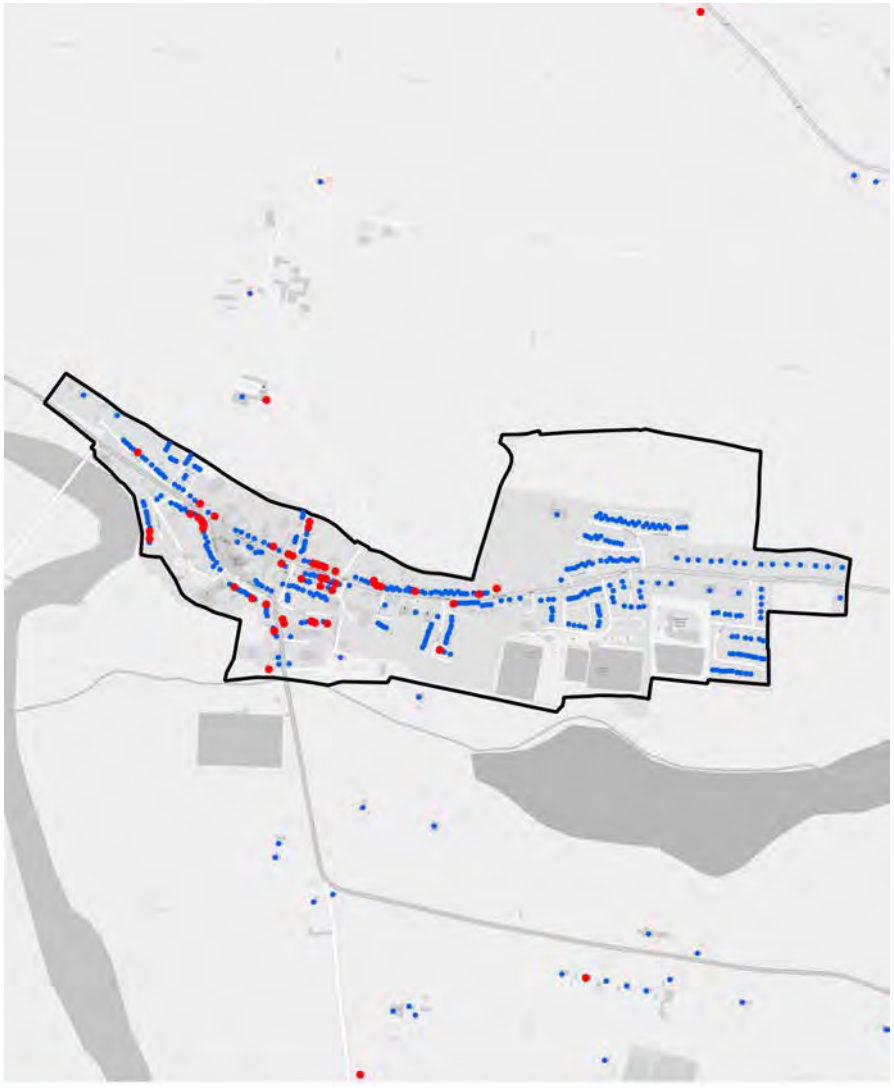
Cappoquin

Residential Housing Developments Timeline



- Latest Developments (2018 to 2020 Q2)
- Waterford CDP 12-17 (2012 to 2017)
- Bust (2008 to 2011)
- Boom (2001 to 2007)
- Pre Boom (Pre 2001)

Housing Vacancy (GeoDirectory Q2 2020)



- Residential Properties (Vacant)
- Residential Properties (Occupied)

An Rinn

Population

Total	% Waterford Total
499	8.9%

Housing Tenure

Stock	% Waterford Total
255	0.5%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
583	+84 or 16.9%	2.7 Persons per Hhld	+31

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 1,600 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 630 PE
- Public Water Capacity: Capacity Available (DG supply) Upgrade required in Baile na nGall. Spare capacity elsewhere.

*PE: Refers to Population equivalent or unit per capita loading

An Rinn Facilities

Education		Health		Travel	Services		Retail*	
Creche	0	GP	0	Bus Stops	0	Fire Station	0	Supermarket	0
Primary School	0	Health Centre	0	Rail Station	0	Garda Station	0	Discount (Aldi/Lidl)	0
Secondary	1	Pharmacy	0			Post Office	1	Convenience	1
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***Supermarket:** Dunnes, Super Valu, Tesco
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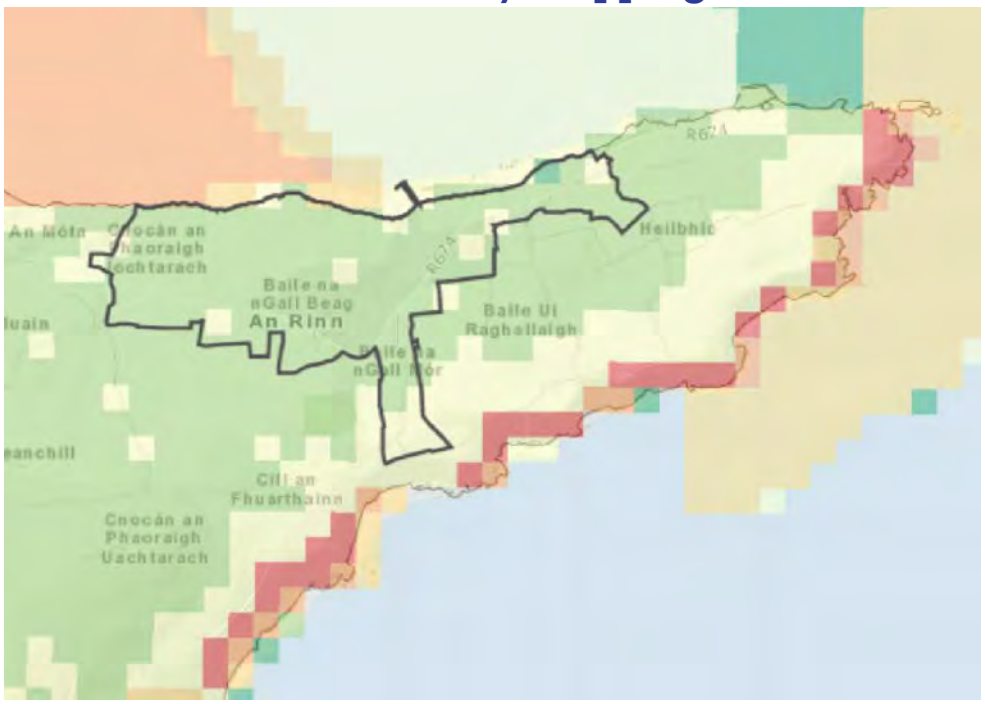
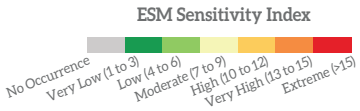
An Rinn

Settlement Facility Profile

Environmental Sensitivity Mapping





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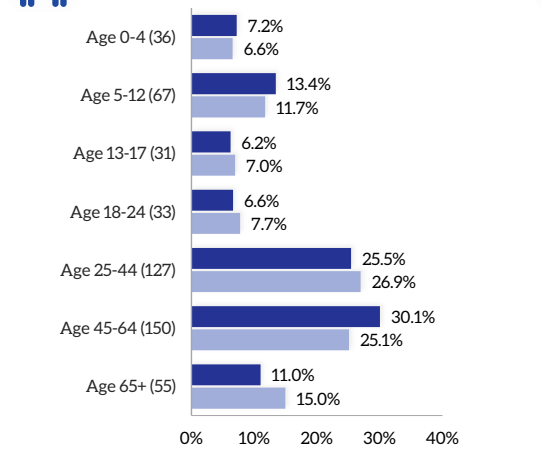
An Rinn

Key socio-economic overview, 2016

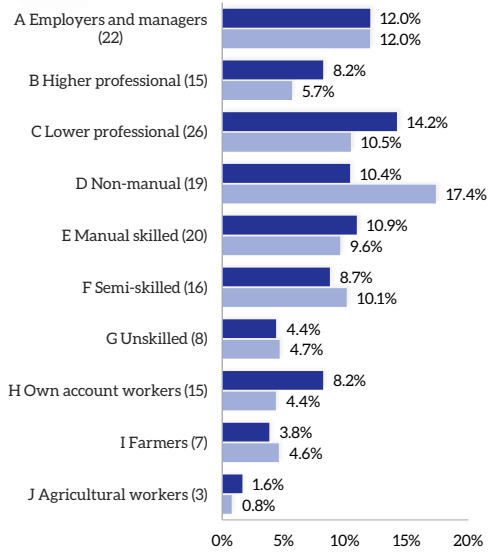
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



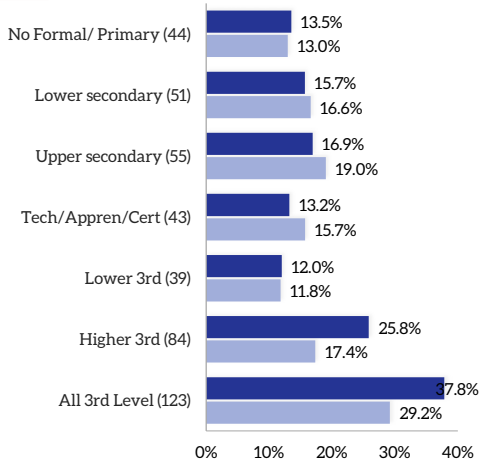
Socio-Economic Group



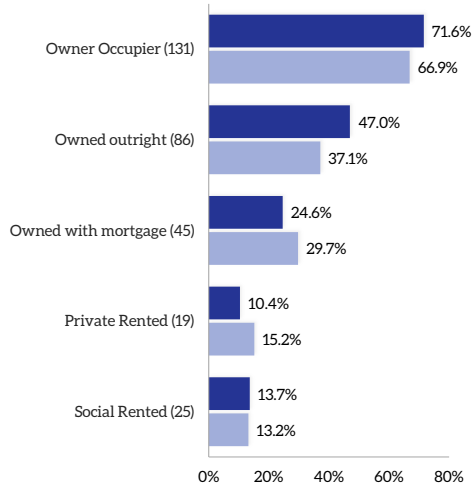
Total Population

Total	% Waterford Total
499	0.4%

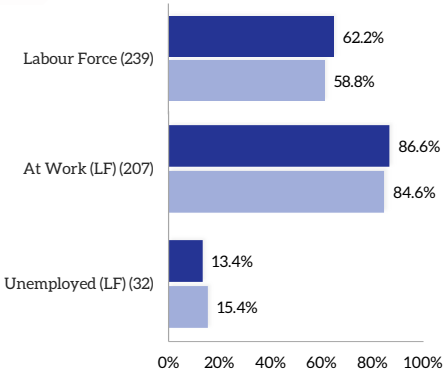
Education Attainment



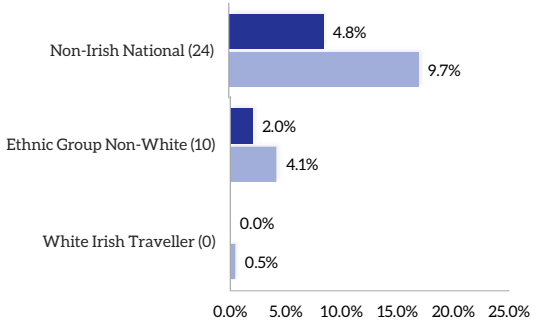
Housing Tenure



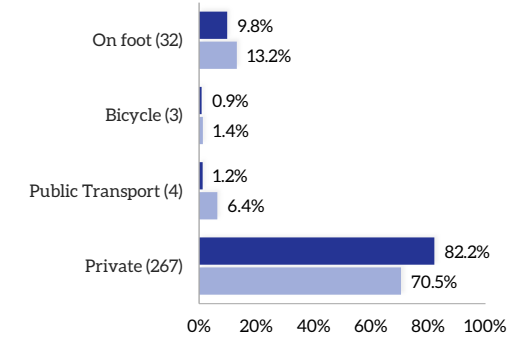
Labour Force



Nationality & Ethnicity

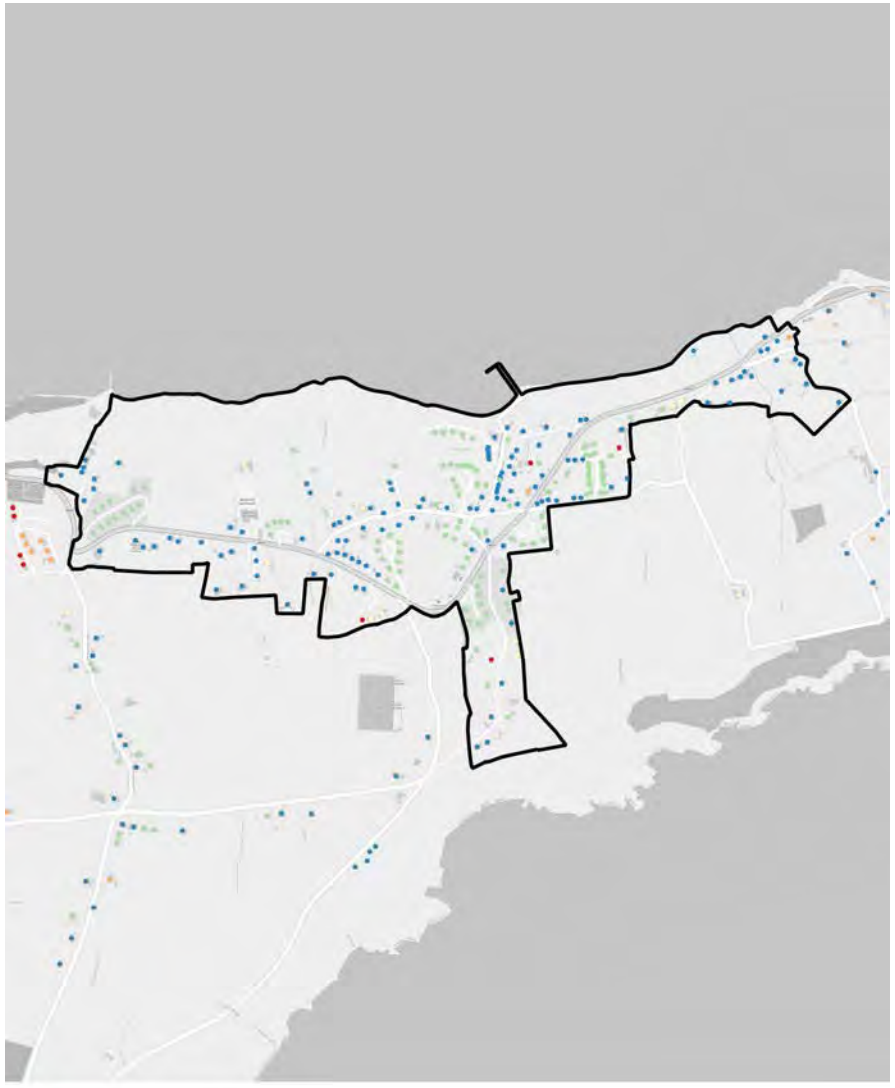


Mode of Travel



An Rinn

Residential Housing Developments Timeline



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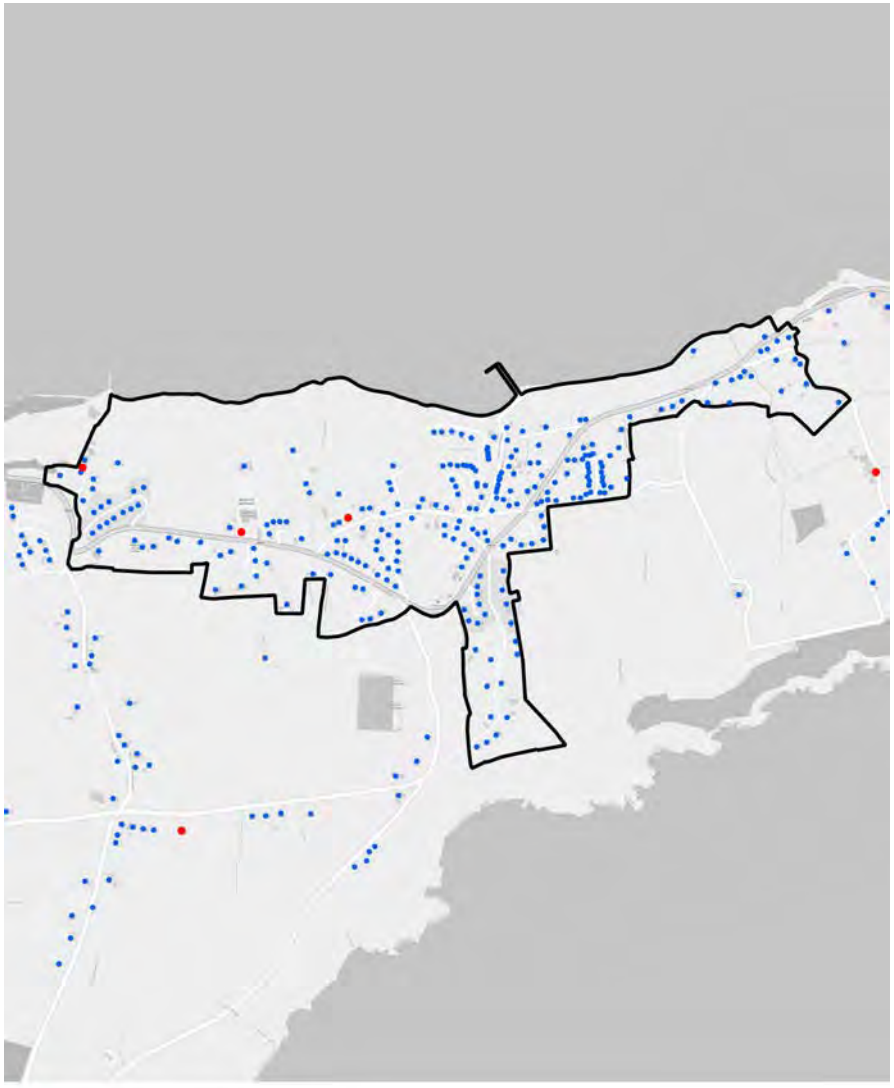

- Residential Properties (Vacant)
- Residential Properties (Occupied)

Stradbally

Population

Total	% Waterford Total
438	0.4%

Housing Tenure

Stock	% Waterford Total
236	0.4%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
512	+74 or 16.9%	2.7 Persons per Hhld	+27

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 1,914 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 1,267 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Stradbally Facilities

Education		Health		Travel	Services		Retail*	
Creche	0	GP	0	Bus Stops	2	Fire Station	0	Supermarket	0
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	0	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	0			Post Office	0	Convenience	0
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Stradbally

Settlement Facility Profile

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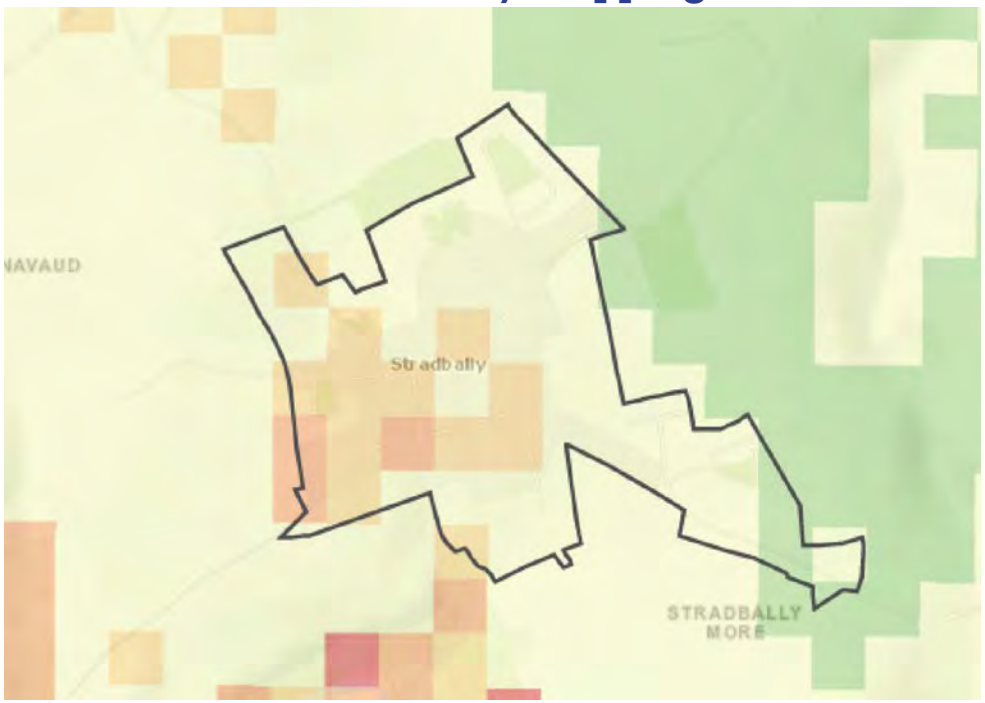

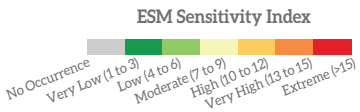

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Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

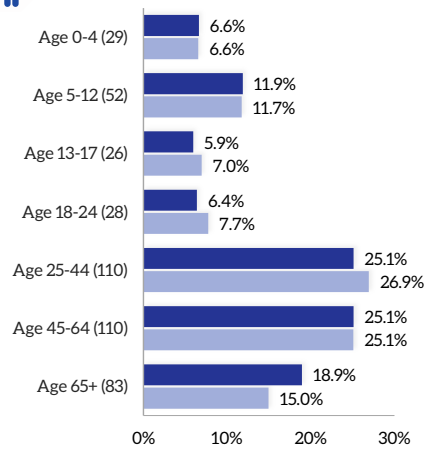
Stradbally

Key socio-economic overview, 2016

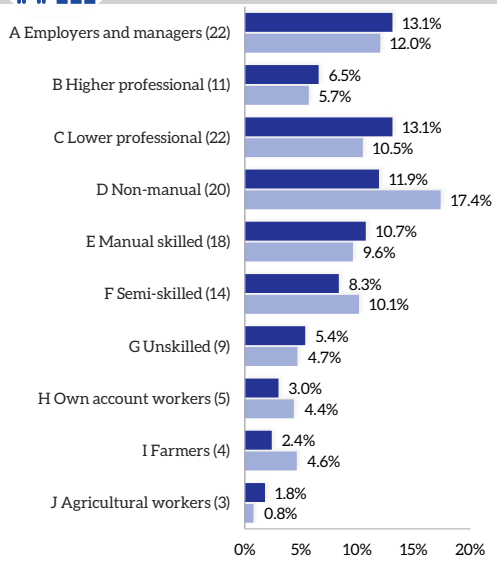
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



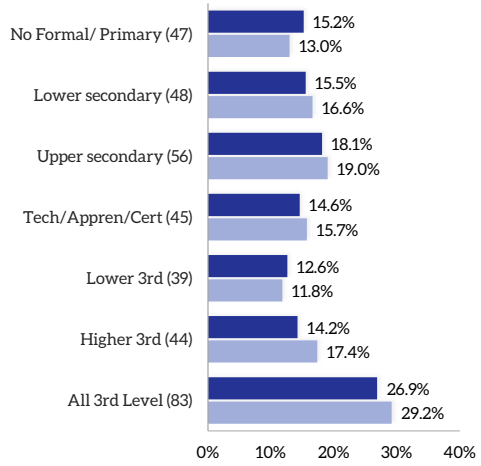
Socio-Economic Group



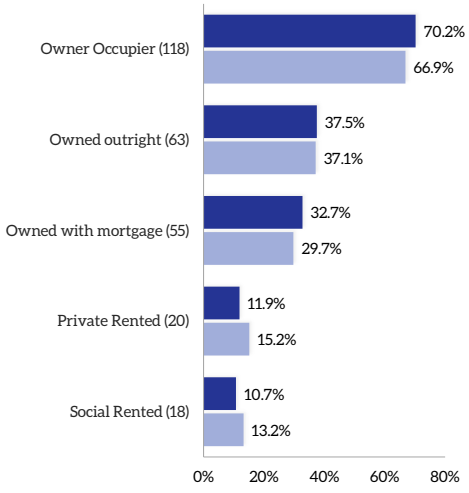
Total Population

Total	% Waterford Total
438	0.4%

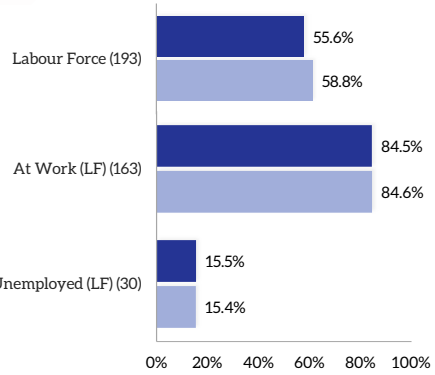
Education Attainment



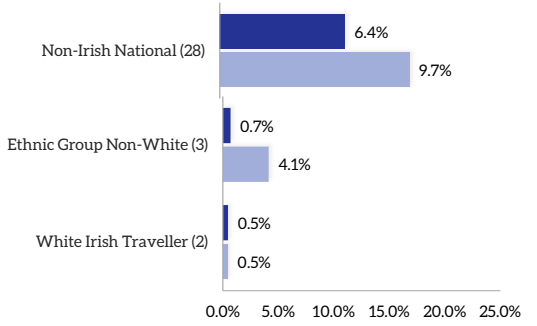
Housing Tenure



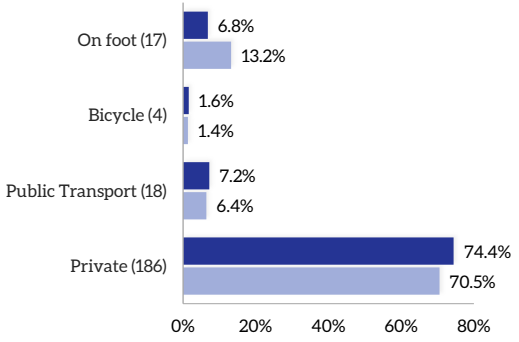
Labour Force



Nationality & Ethnicity



Mode of Travel



Stradbally

Residential Housing Developments Timeline

- Latest Developments (2018 to 2020 Q2)
- Waterford CDP 12-17 (2012 to 2017)
- Bust (2008 to 2011)
- Boom (2001 to 2007)
- Pre Boom (Pre 2001)

Housing Vacancy (GeoDirectory Q2 2020)

- Residential Properties (Vacant)
- Residential Properties (Occupied)

Ardmore

Population

Total	% Waterford Total
434	0.4%

Housing Tenure

Stock	% Waterford Total
348	0.7%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
507	+73 or 16.9%	2.7 Persons per Hhld	+27

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 2,934 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 1,439 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Ardmore Facilities

Education		Health		Travel	Services		Retail*	
Creche	1	GP	1	Bus Stops	9	Fire Station	1	Supermarket	0
Primary School	1	Health Centre	1	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	1			Post Office	1	Convenience	1
		Dentist	0			Library	0		

*Supermarket: Dunnes, Super Valu, Tesco
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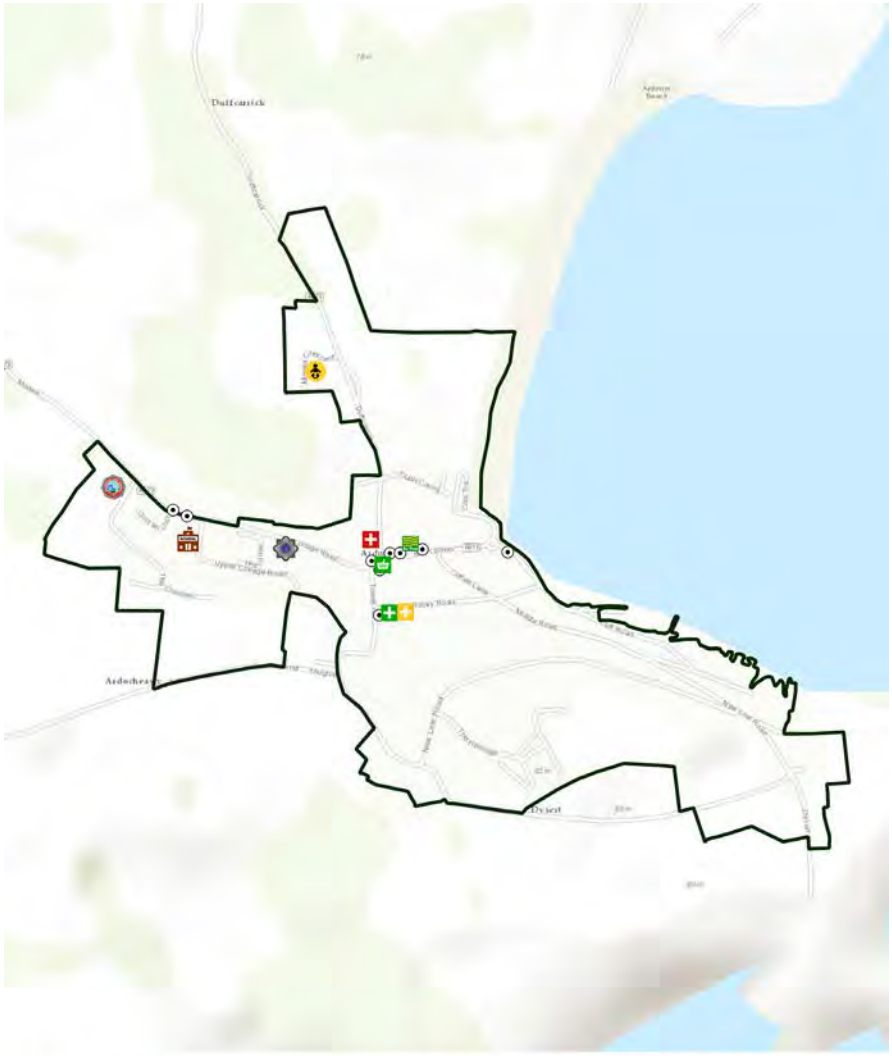
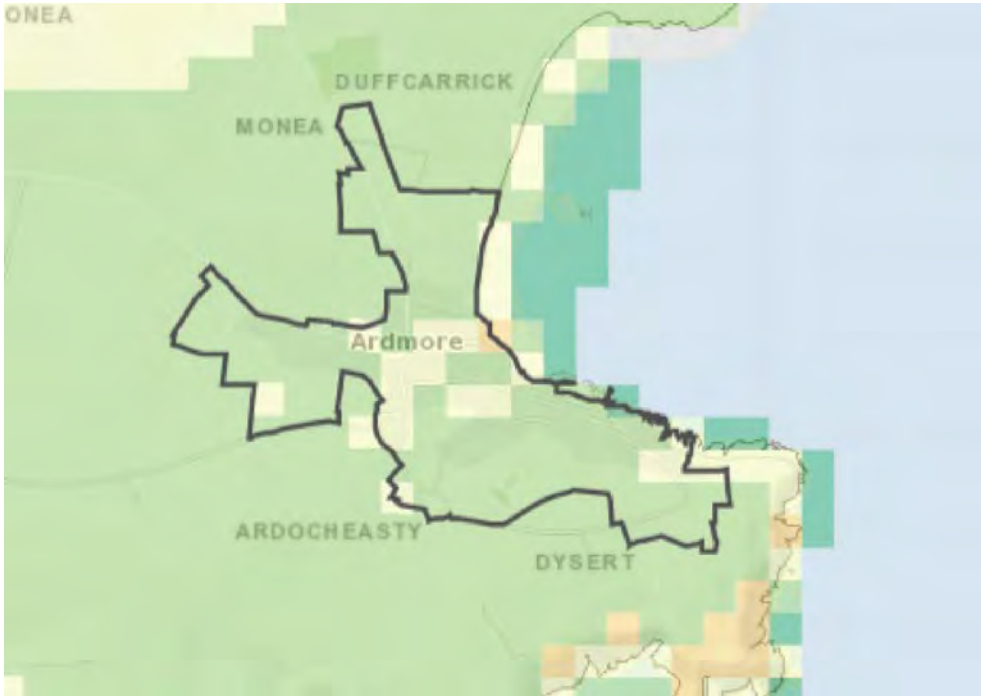
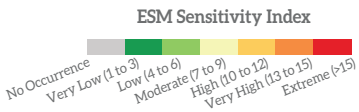
Ardmore

Settlement Facility Profile



Environmental Sensitivity Mapping





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See **https://www.enviromap.ie/** for more details.

ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
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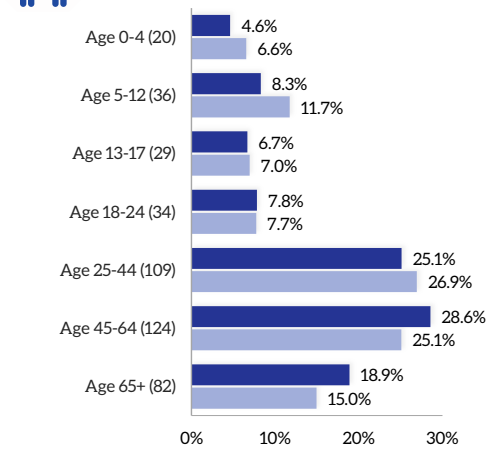
Ardmore

Key socio-economic overview, 2016

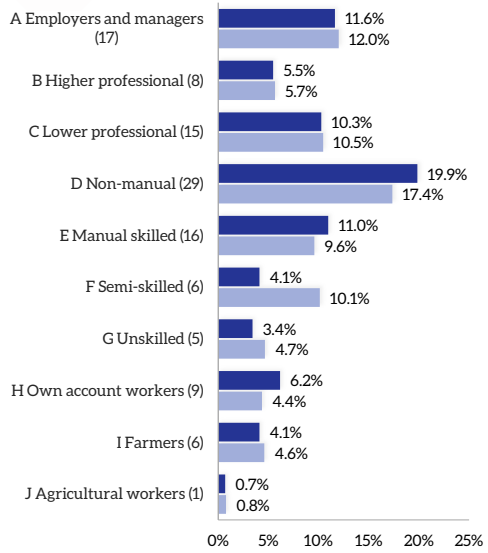
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



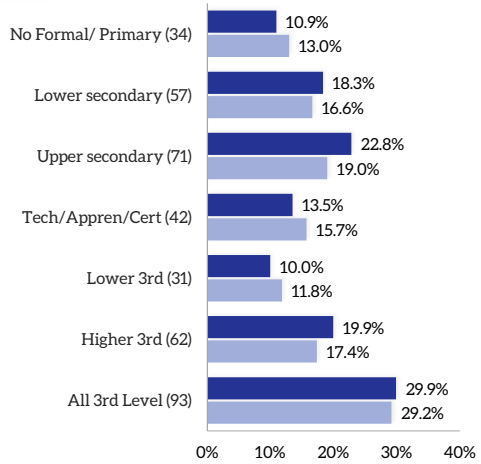
Socio-Economic Group



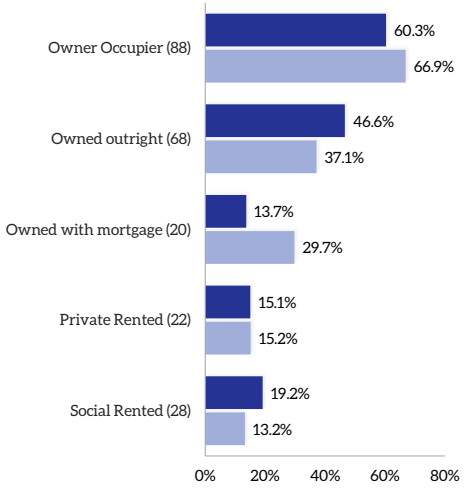
Total Population

Total	% Waterford Total
434	0.4%

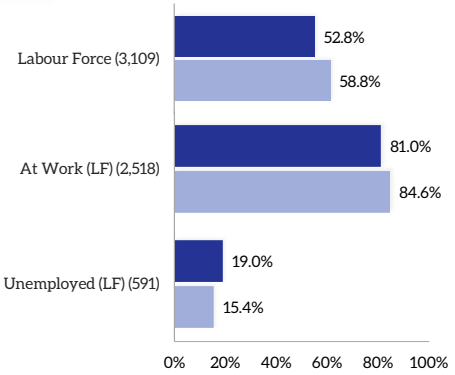
Education Attainment



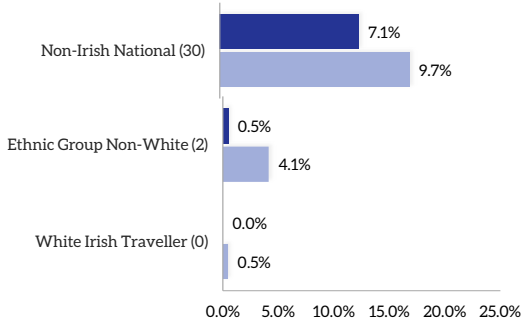
Housing Tenure



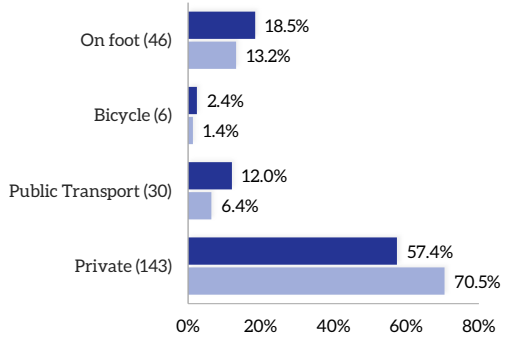
Labour Force



Nationality & Ethnicity



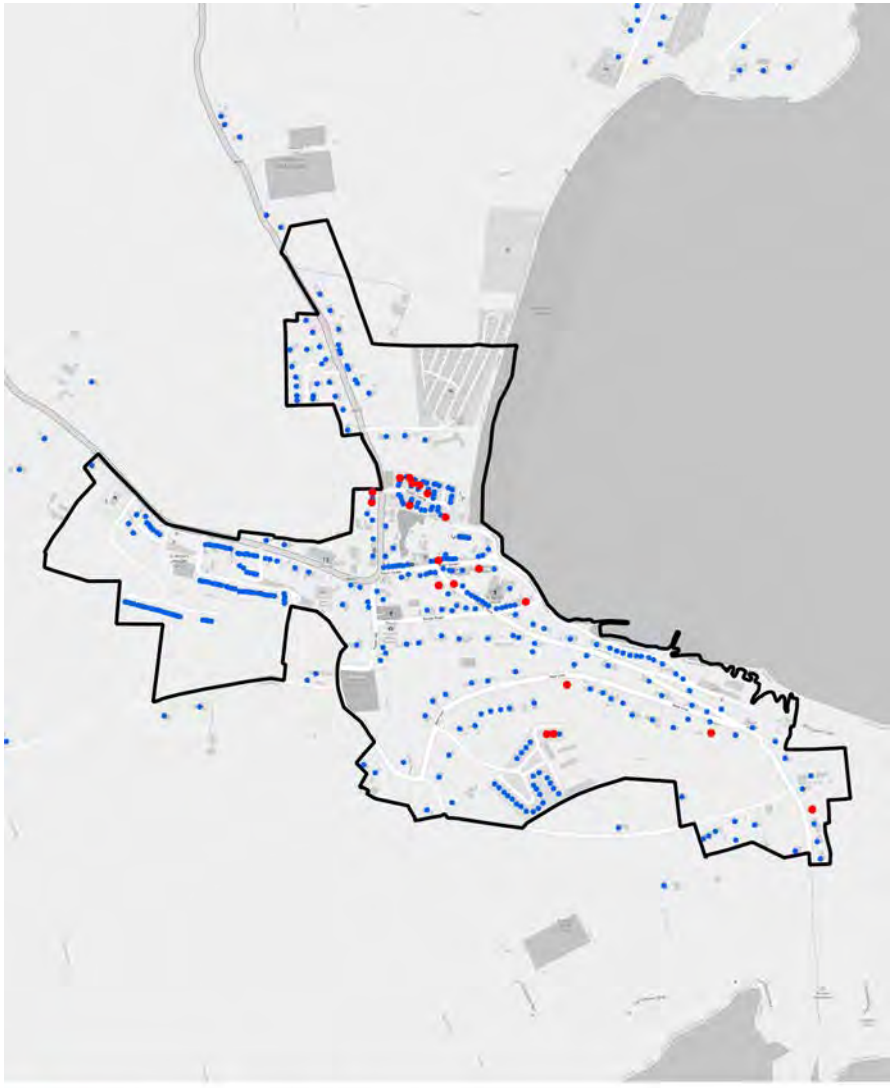
Mode of Travel



Ardmore

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)



Aglish

Population

Total	% Waterford Total
333	0.3%

Housing Tenure

Stock	% Waterford Total
160	0.3%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
389	+56 or 16.9%	2.7 Persons per Hhld	+21

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 800 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 300 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Aglish Facilities

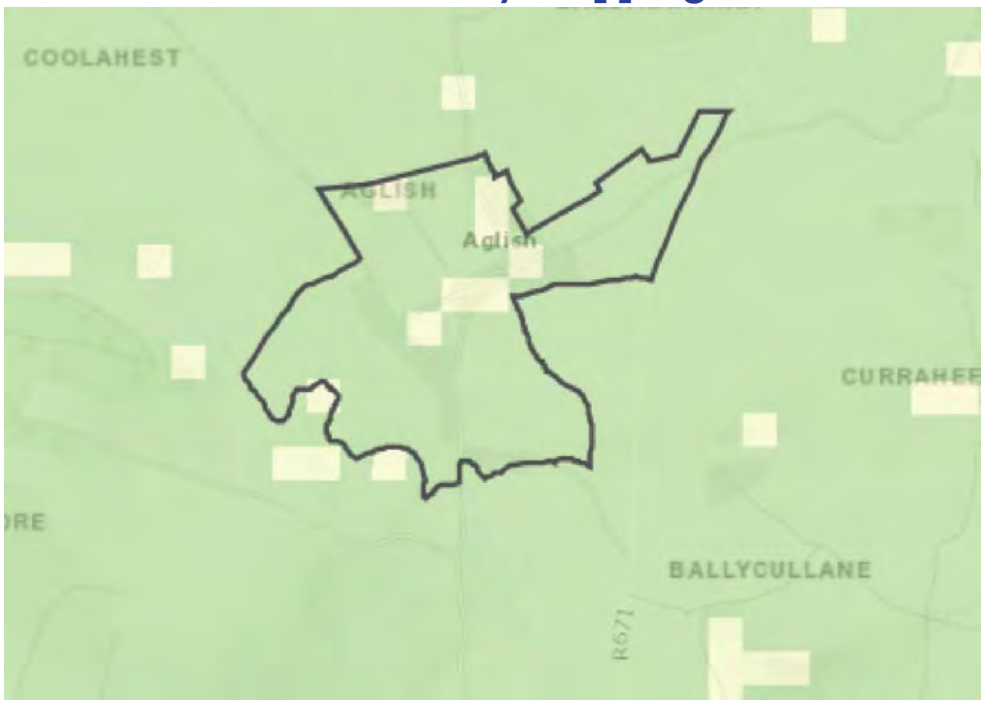
Education		Health		Travel		Services		Retail*	
Creche	0	GP	0	Bus Stops	2	Fire Station	0	Supermarket	0
Primary School	1	Health Centre	0	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	0			Post Office	1	Convenience	0
		Dentist	0			Library	0		

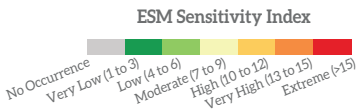
*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

Aglish

Settlement Facility Profile

Environmental Sensitivity Mapping





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ESM Model Input Criteria (as per NPF criteria)

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Aglish

Key socio-economic overview, 2016

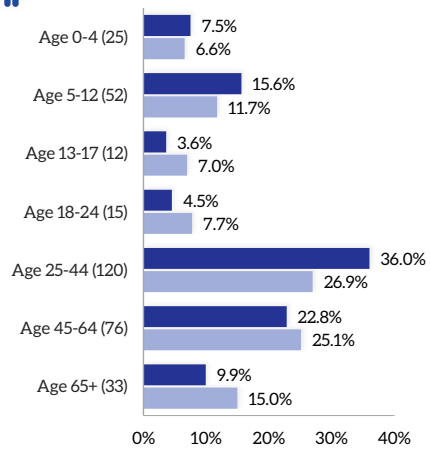
* Data sourced from CSO Census

Settlement | Waterford County

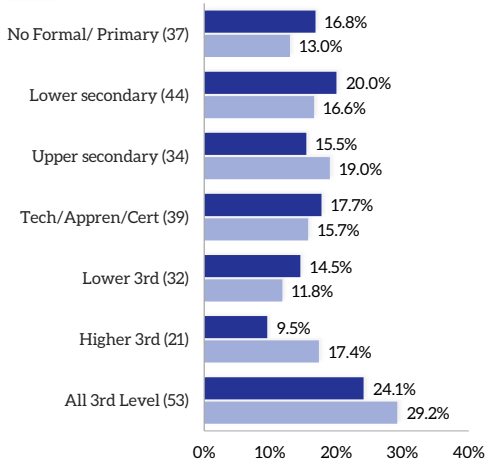
Total Population

Total	% Waterford Total
333	0.3%

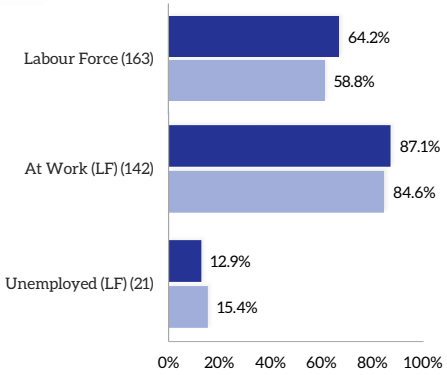
Population Age



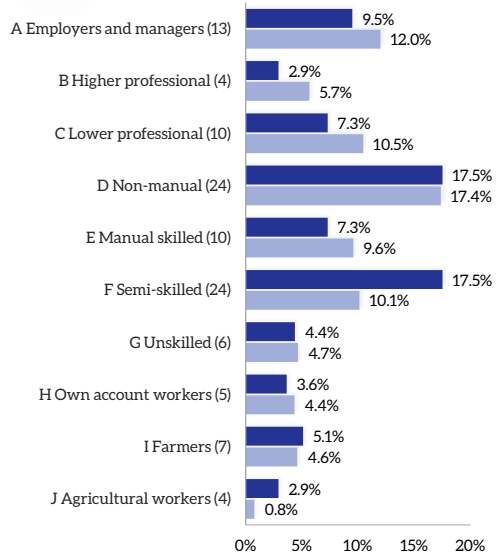
Education Attainment



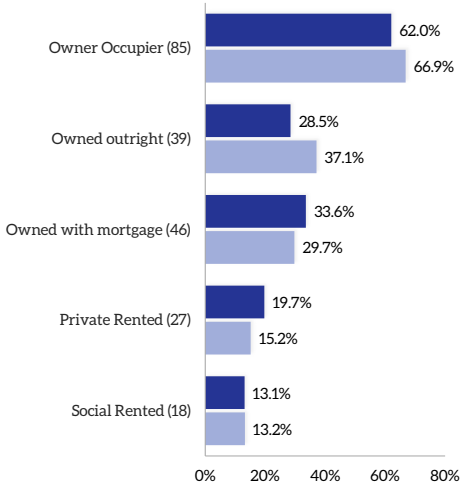
Labour Force



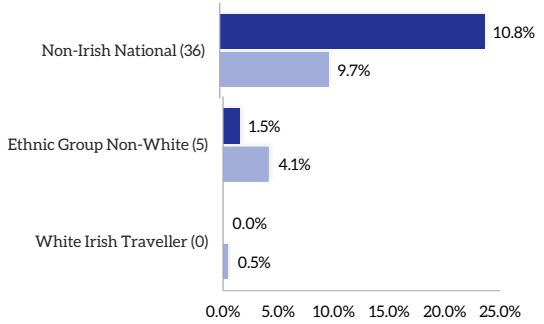
Socio-Economic Group



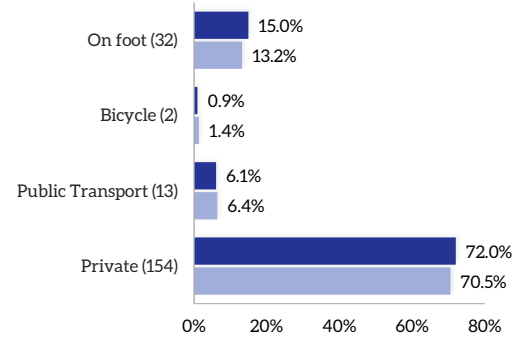
Housing Tenure



Nationality & Ethnicity



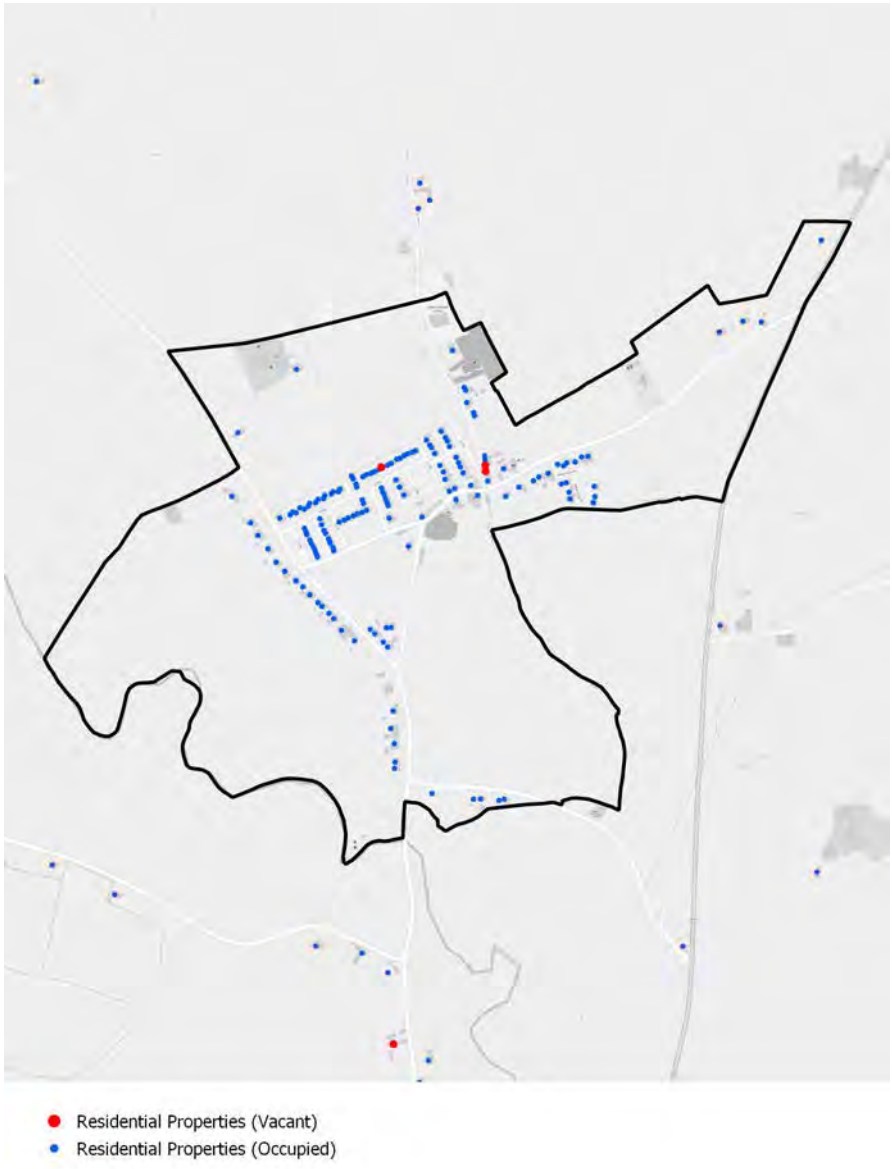
Mode of Travel



Aglish

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)



Villierstown

Population

Total	% Waterford Total
276	0.2%

Housing Tenure

Stock	% Waterford Total
128	0.2%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
323	+47 or 16.9%	2.7 Persons per Hhld	+17

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 700 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 400 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Villierstown Facilities

Education		Health		Travel		Services		Retail*	
Creche	1	GP	0	Bus Stops	2	Fire Station	0	Supermarket	0
Primary School	1	Health Centre	0	Rail Station	0	Garda Station	0	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	0			Post Office	0	Convenience	0
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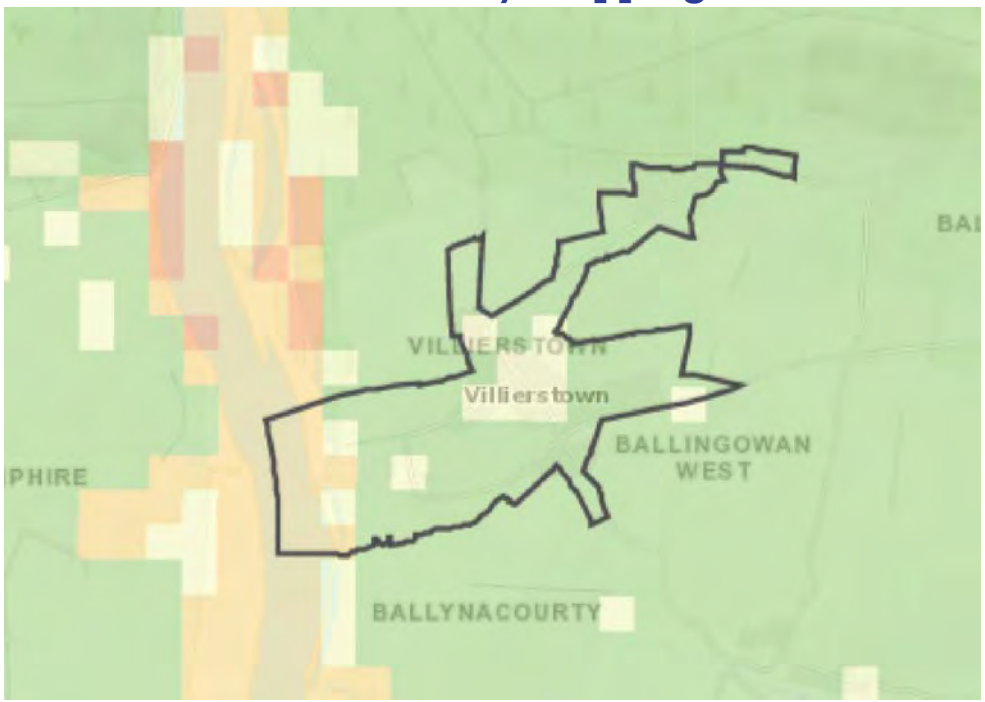
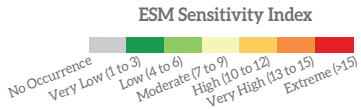
Villierstown

Settlement Facility Profile

Environmental Sensitivity Mapping





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Villierstown

Key socio-economic overview, 2016

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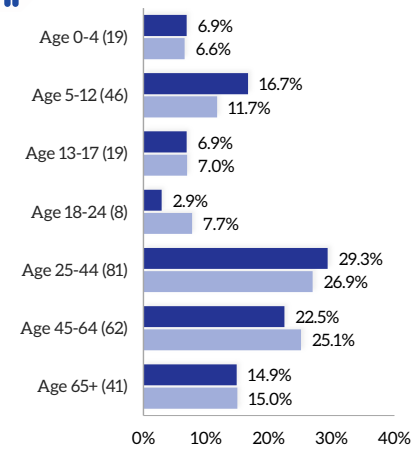
Settlement | Waterford County

Population Age



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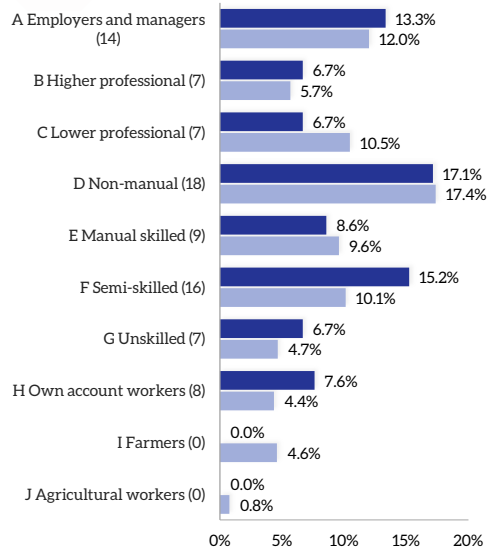
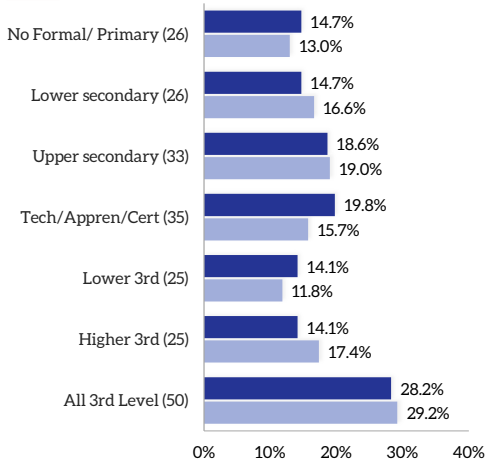


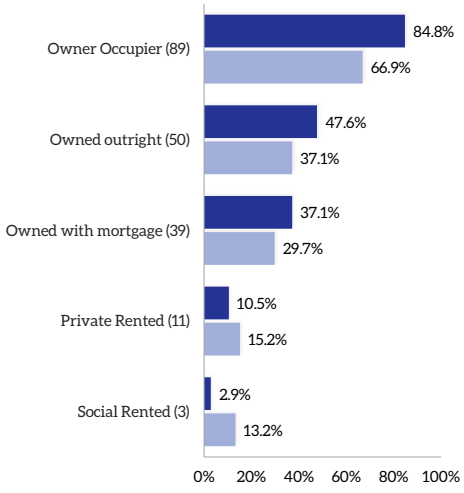
Total Population

Total	% Waterford Total
276	0.2%

Education Attainment



Housing Tenure



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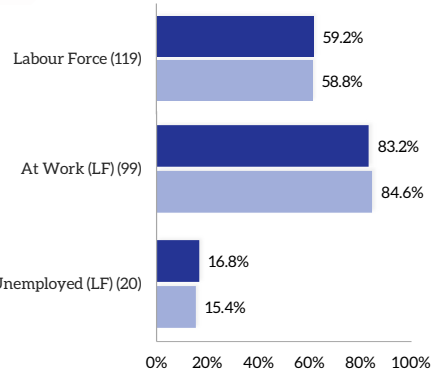

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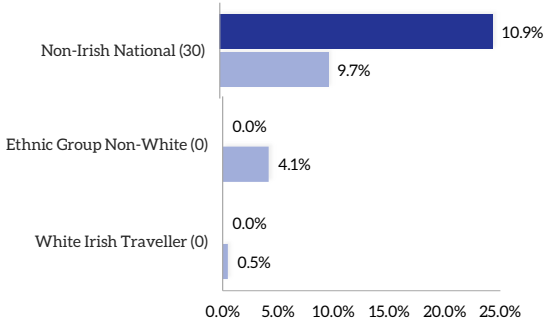
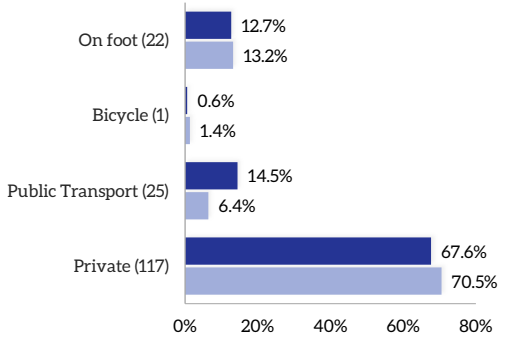
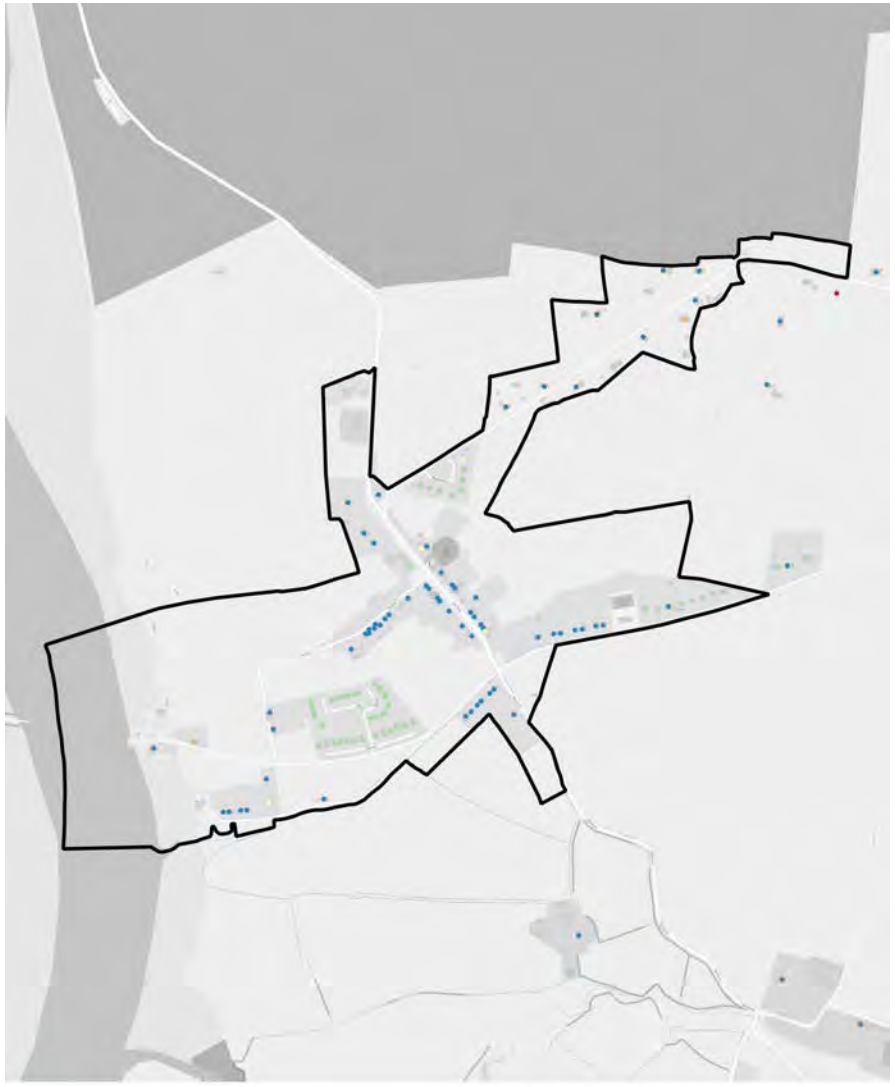


Mode of Travel



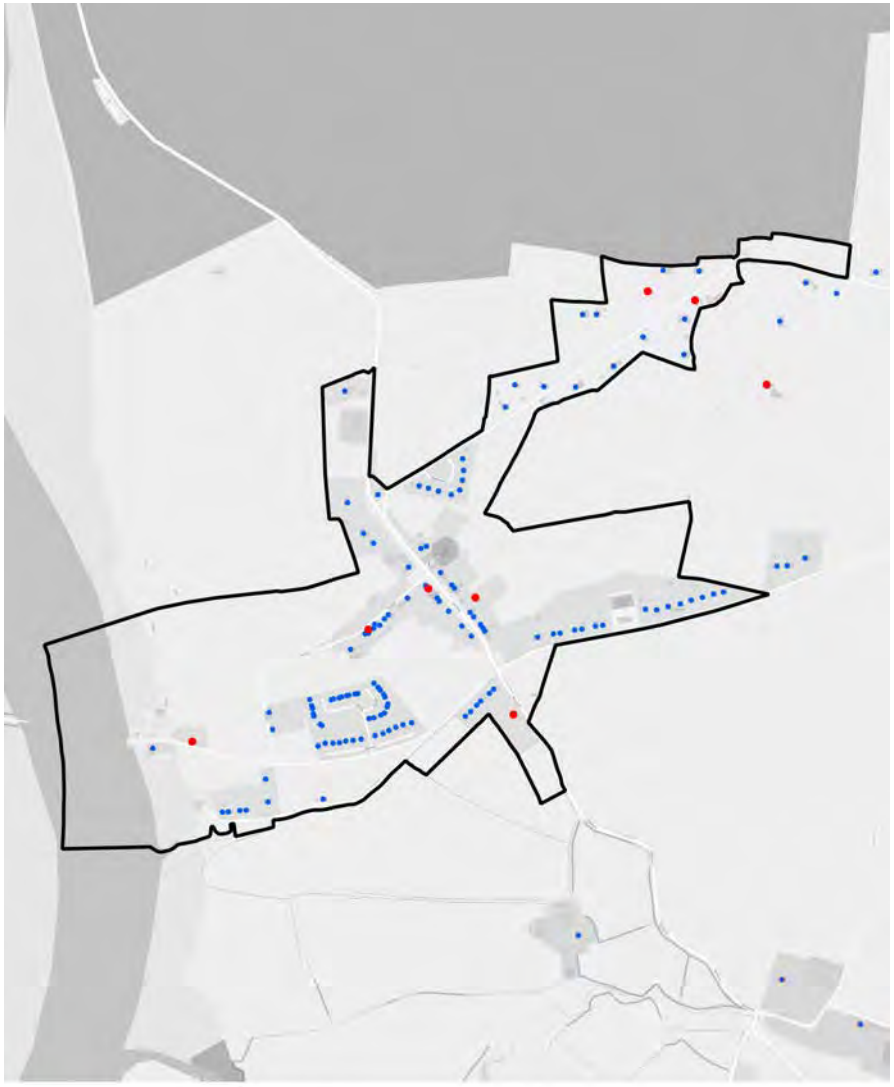
Villierstown

Residential Housing Developments Timeline



- Latest Developments (2018 to 2020 Q2)
- Waterford CDP 12-17 (2012 to 2017)
- Bust (2008 to 2011)
- Boom (2001 to 2007)
- Pre Boom (Pre 2001)

Housing Vacancy (GeoDirectory Q2 2020)



- Residential Properties (Vacant)
- Residential Properties (Occupied)

Kill

Population

Total	% Waterford Total
271	0.2%

Housing Tenure

Stock	% Waterford Total
134	0.3%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
317	+46 or 16.9%	2.7 Persons per Hhld	+17

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 750 PE (ICW)
- Wastewater Treatment Spare Capacity (2017): 450 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

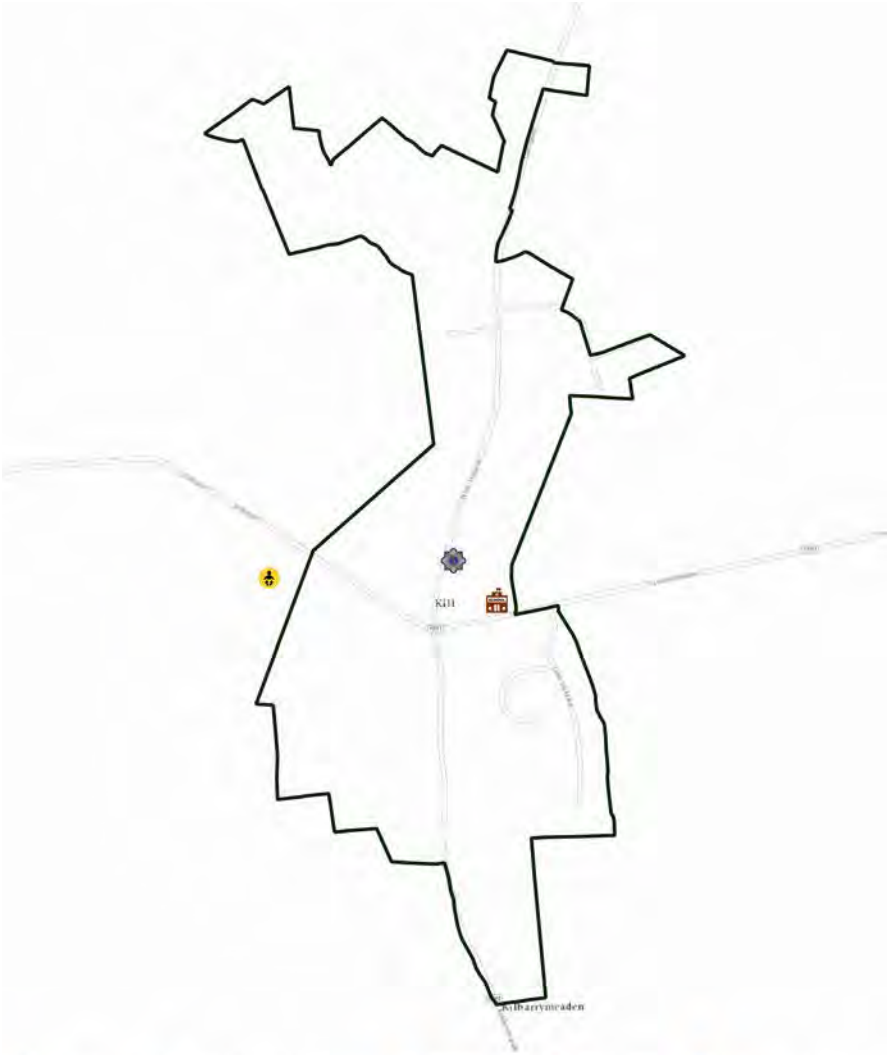
Kill Facilities

Education		Health		Travel	Services		Retail*	
Creche	0	GP	0	Bus Stops	0	Fire Station	0	Supermarket	0
Primary School	1	Health Centre	0	Rail Station	0	Garda Station	1	Discount (Aldi/Lidl)	0
Secondary	0	Pharmacy	0			Post Office	0	Convenience	0
		Dentist	0			Library	0		

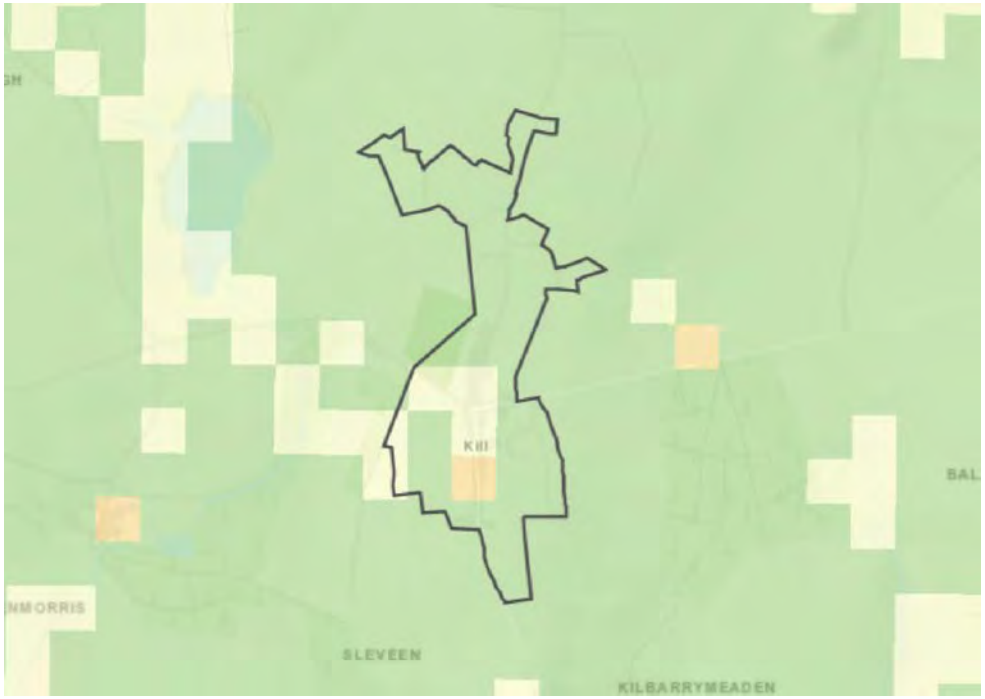
***Supermarket:** Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

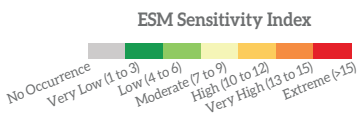
Kill

Settlement Facility Profile



Environmental Sensitivity Mapping





This high level environmental sensitivity analysis has been carried out using the EPA Environmental Sensitivity Mapping (ESM) webtool. This a novel decision-support tool for SEA and planning processes in Ireland. It allows users to create area-specific environmental sensitivity maps. The variables included in the analysis are those as used for the NPF and RSES SEA supporting analysis.

The Legend (left) indicates areas where environmental sensitivities have been recorded. A score of 0 indicates **No Occurrence** where as a score of >15 indicates an areas of **Extreme** environmental sensitivity.
See **https://www.enviromap.ie/** for more details.

ESM Model Input Criteria (as per NPF criteria)

Theme	Variable
Air & Climatic	Air Zones, Historical Flood Extents
Biodiversity Flora and Fauna	Ancient Woodlands, Annex 1 Habitats, FIPS, Margaritifera Sensitive Areas, NHAs, Proposed Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas.
Cultural Heritage	National Inventory of Architectural Heritage, Record of Monuments and Places
Population and Human Health	WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)
Soils and Geology	Peat Bogs
Water	Aquifer Vulnerability, Bedrock Aquifer, Groundwater Source Protection Areas, Wetalnds, WFD RPA Recreational Waters Coastal, WFD RPA Recreational Waters Lakes, WFD RAP Water Dependant Habitats (SPAs), WFD Water Dependant Habitats (SACs)

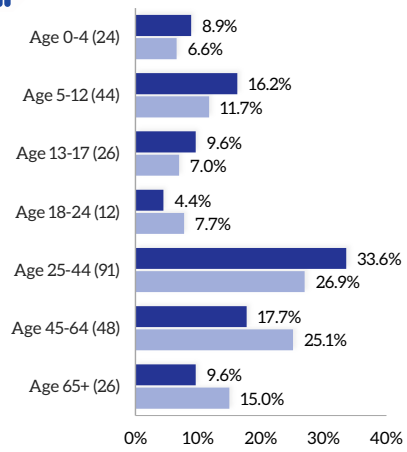
Kill

Key socio-economic overview, 2016

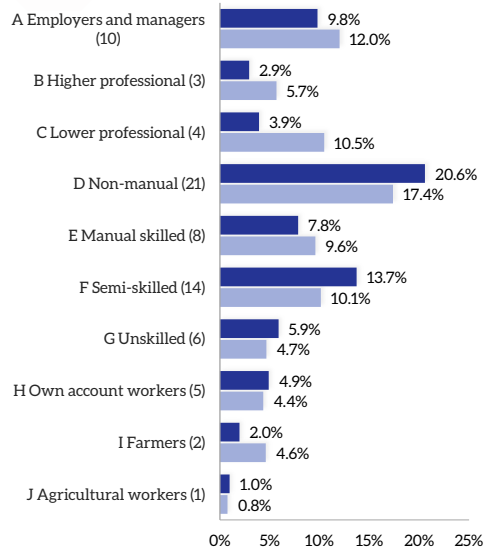
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



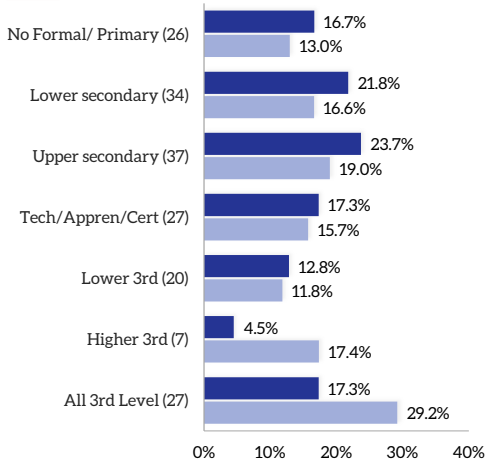
Socio-Economic Group



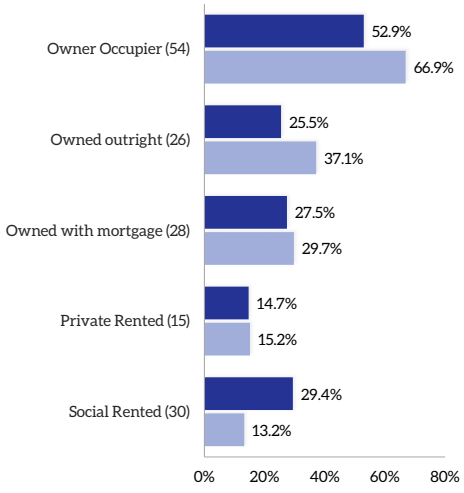
Total Population

Total	% Waterford Total
271	0.2%

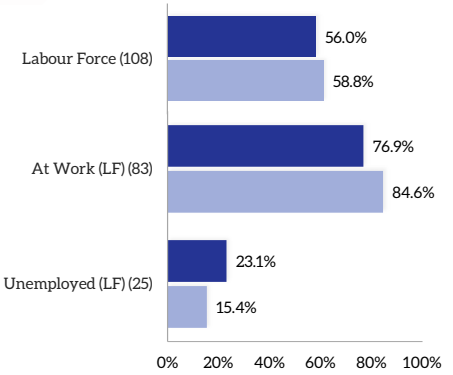
Education Attainment



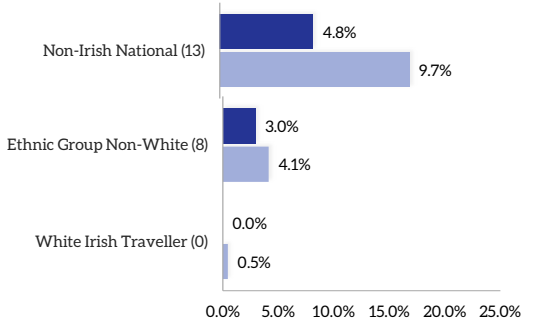
Housing Tenure



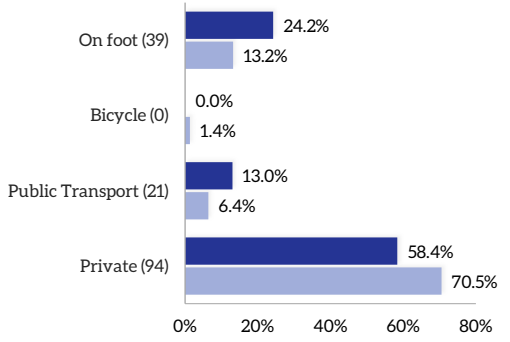
Labour Force



Nationality & Ethnicity



Mode of Travel



Kill

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)

Kilmeaden

Population

Total	% Waterford Total
259	0.2%

Housing Tenure

Stock	% Waterford Total
118	0.2%

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

RSES Population Targets 2028

2028 Population	Increase	Average Household Size	Projected Housing Requirement
303	+44 or 16.9%	2.7 Persons per Hhld	+16

Water and Wastewater Capacity 2028

- Wastewater Treatment Capacity: 1,142 PE Plant*
- Wastewater Treatment Spare Capacity (2017): 883 PE
- Public Water Capacity: Capacity Available.

*PE: Refers to Population equivalent or unit per capita loading

Tramore Facilities

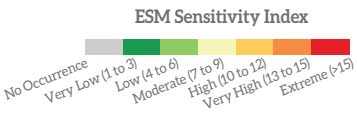
Education		Health		Travel	Services		Retail*	
Creche	0	GP	0	Bus Stops	6	Fire Station	0	Supermarket	0
Primary School	4	Health Centre	1	Rail Station	0	Garda Station	0	Discount (Aldi/Lidl)	0
Secondary	1	Pharmacy	1			Post Office	0	Convenience	1
		Dentist	0			Library	0		

*Supermarket: Dunnes, Super Valu, Tesco
Discount: Aldi, Lidl
Convenience: Centra, Spar/Eurospar, Mace, Londis

Kilmeaden

Settlement Facility Profile

Environmental Sensitivity Mapping



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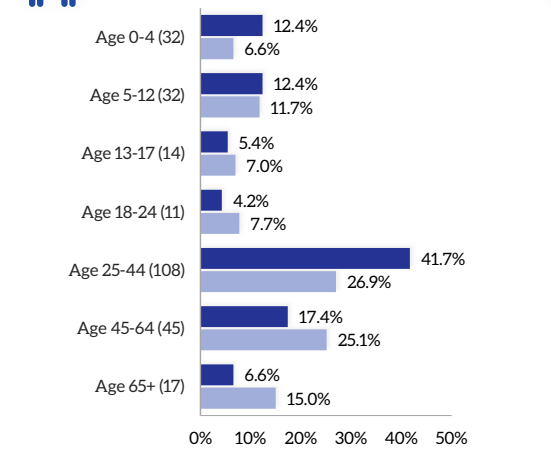
Kilmeaden

Key socio-economic overview, 2016

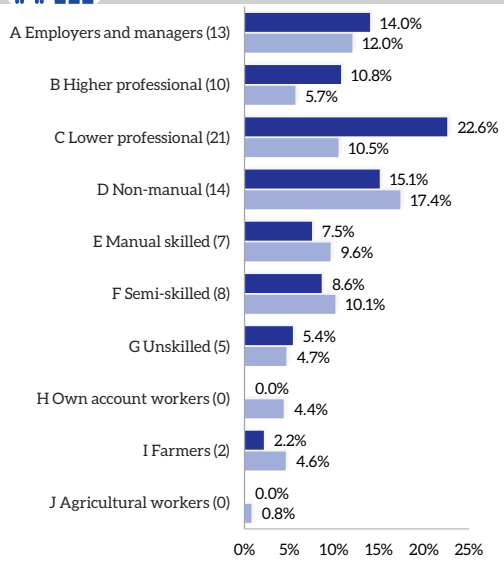
* Data sourced from CSO Census

Settlement | Waterford County

Population Age



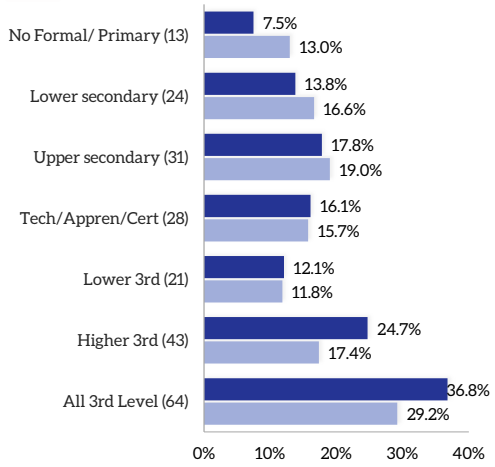
Socio-Economic Group



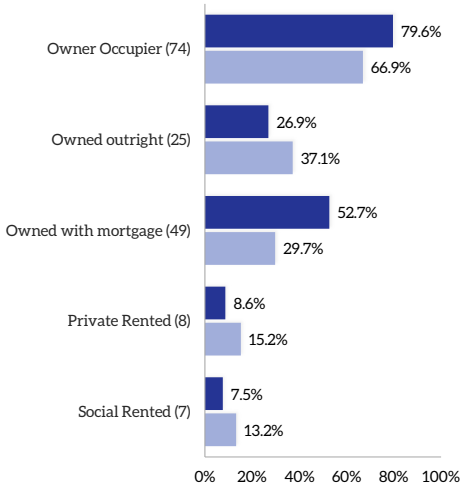
Total Population

Total	% Waterford Total
259	0.2%

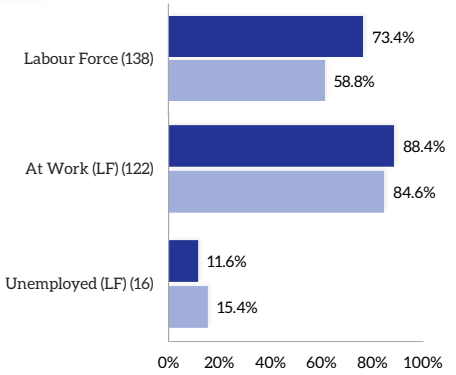
Education Attainment



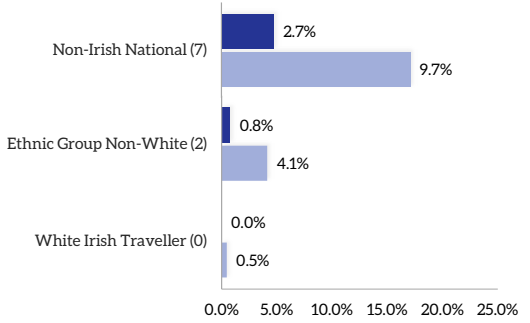
Housing Tenure



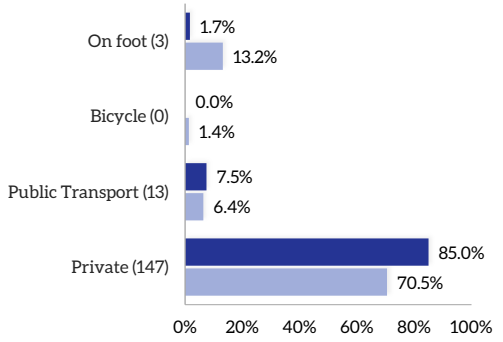
Labour Force



Nationality & Ethnicity



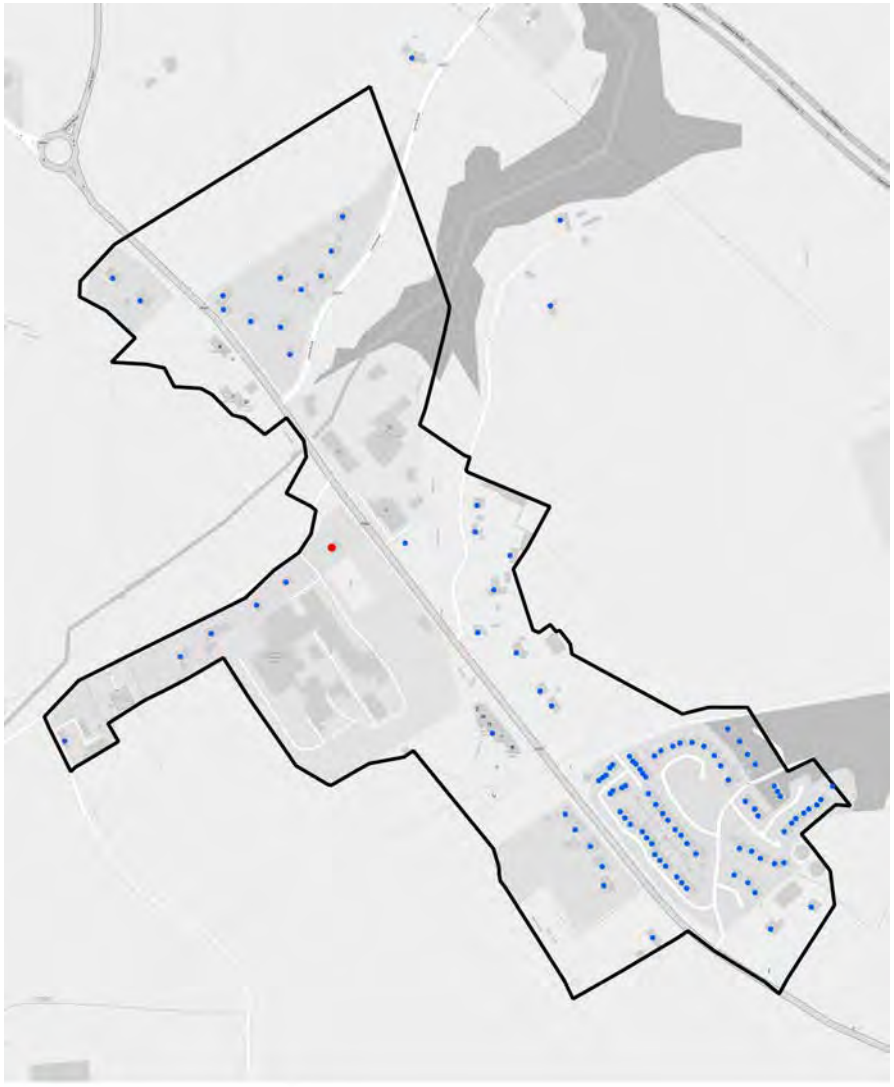
Mode of Travel



Kilmeaden

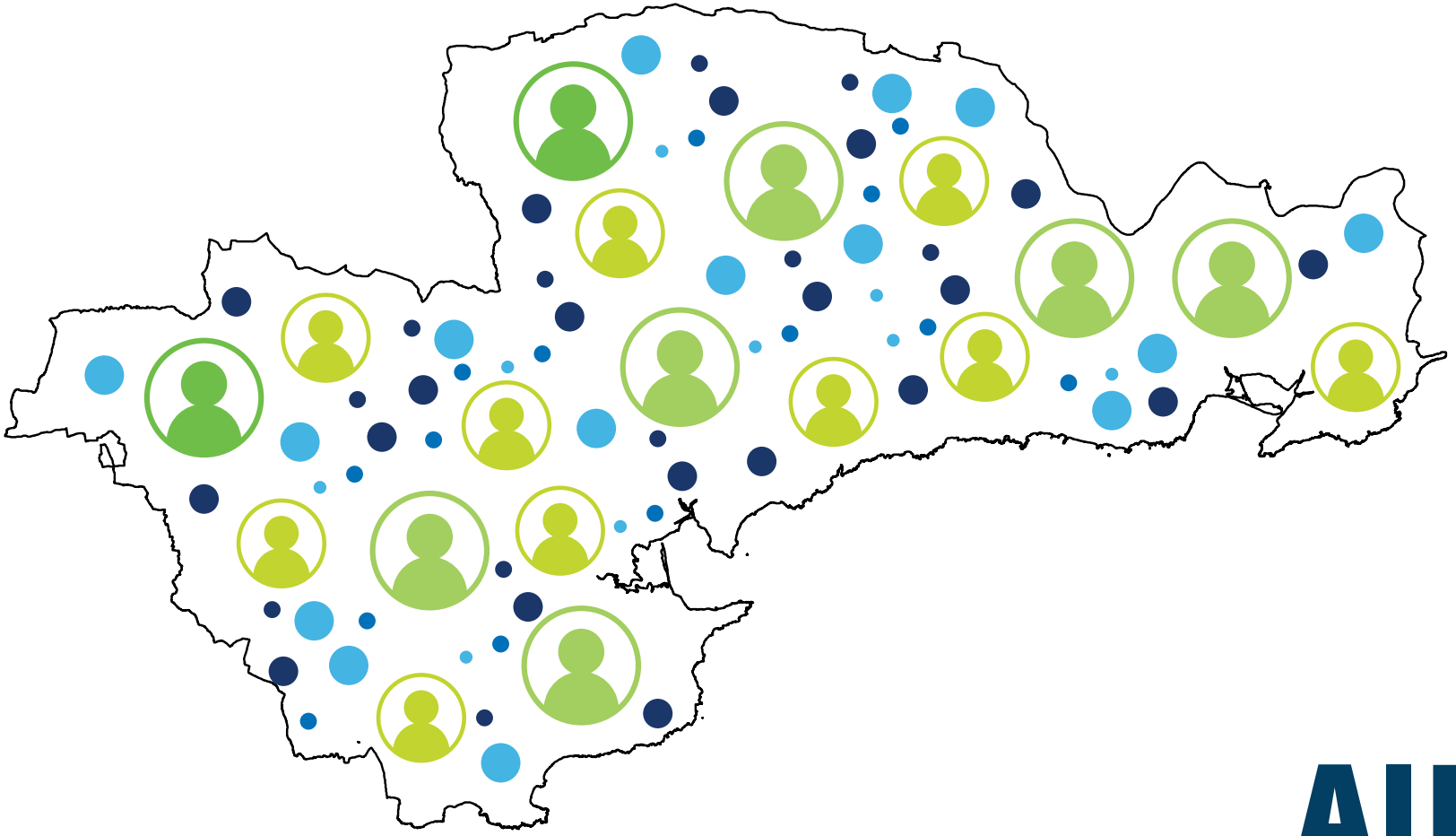
Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)



Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Section 6b:
Sub-Area Profiles



AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

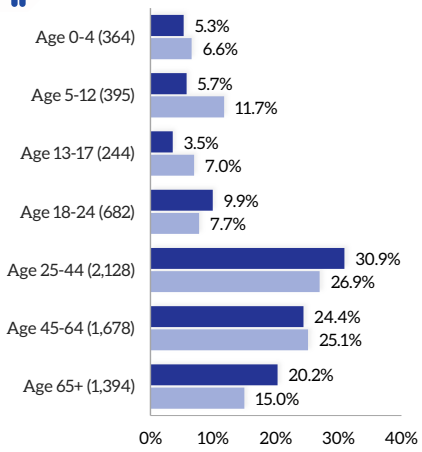
Sub-Area 1, Inner City

Key socio-economic overview, 2016

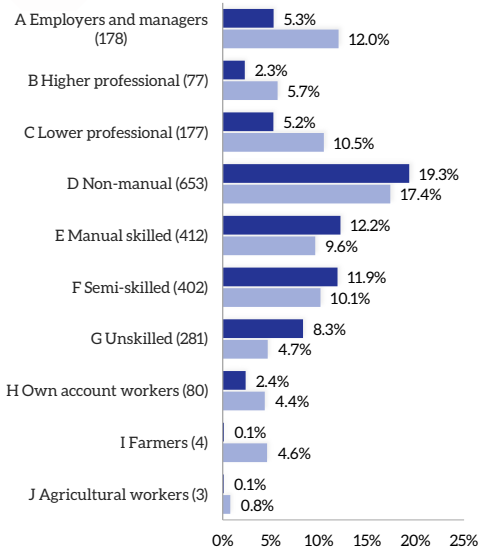
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



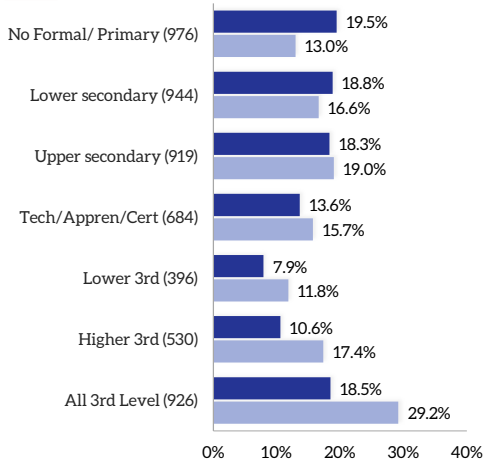
Socio-Economic Group



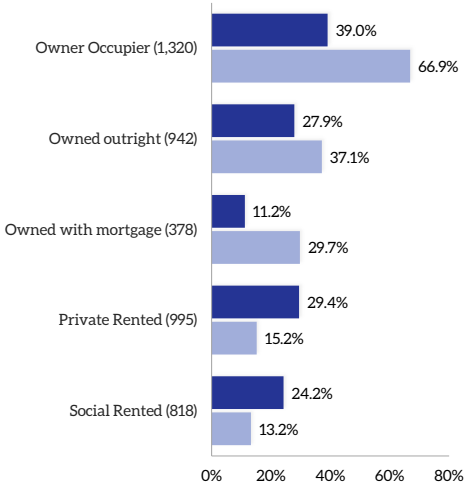
Total Population

Total	% Waterford Total
6,885	5.9%

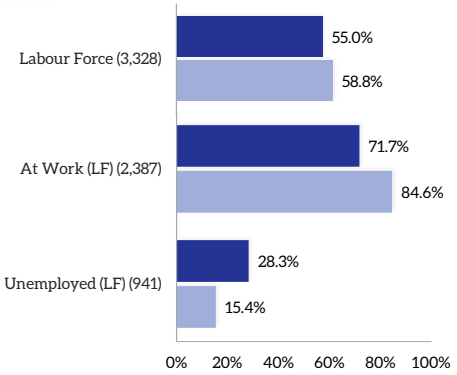
Education Attainment



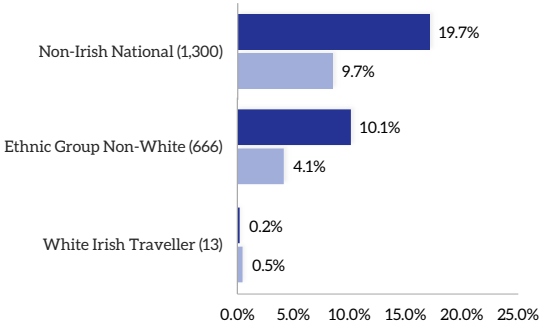
Housing Tenure



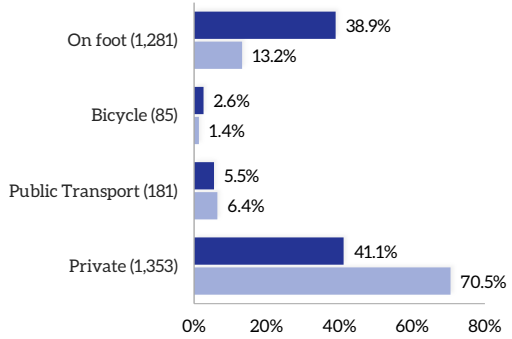
Labour Force



Nationality & Ethnicity

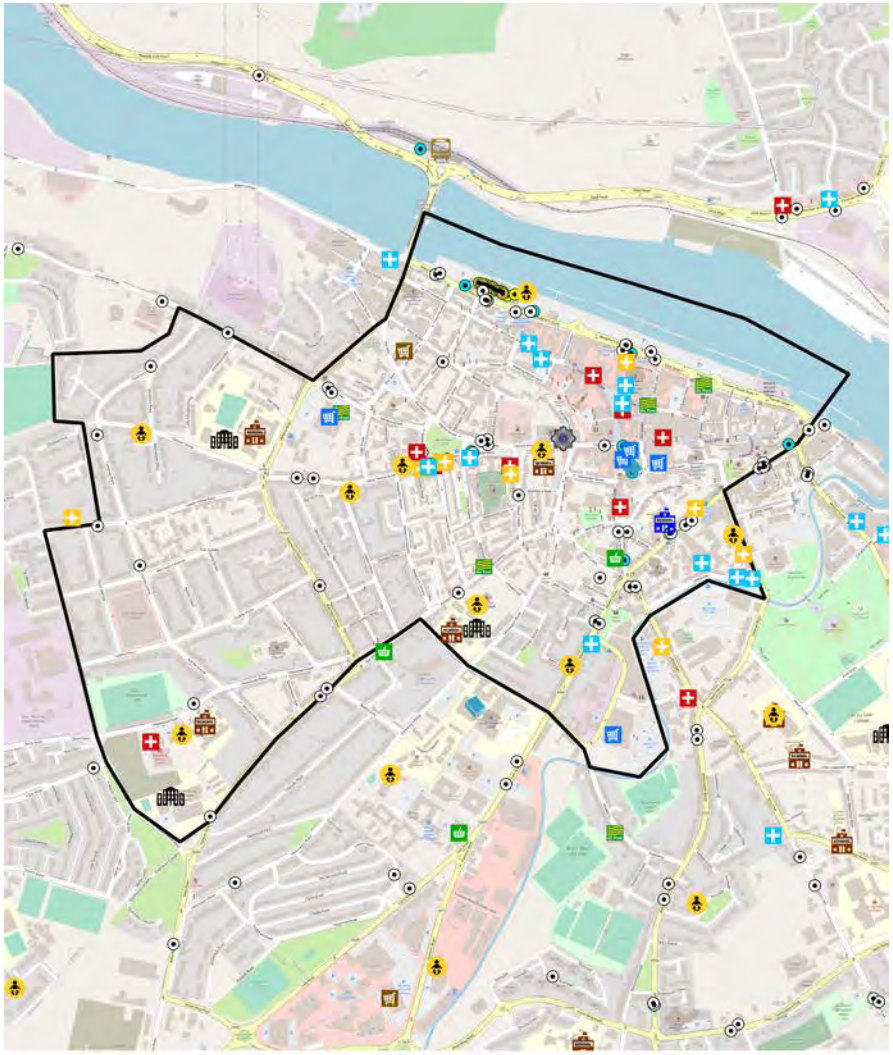


Mode of Travel



Sub-Area 1, Inner City

Sub-Area 1, Facilities



Education

Crèche	Primary School	Secondary School
9	5	3

Health

GP	Health Centre	Pharmacy	Dentist
8	0	11	11

Travel

Bus Stops	Rail Station
71	0

Services

Fire Station	Garda Station	Post Office	Library
0	1	4	1

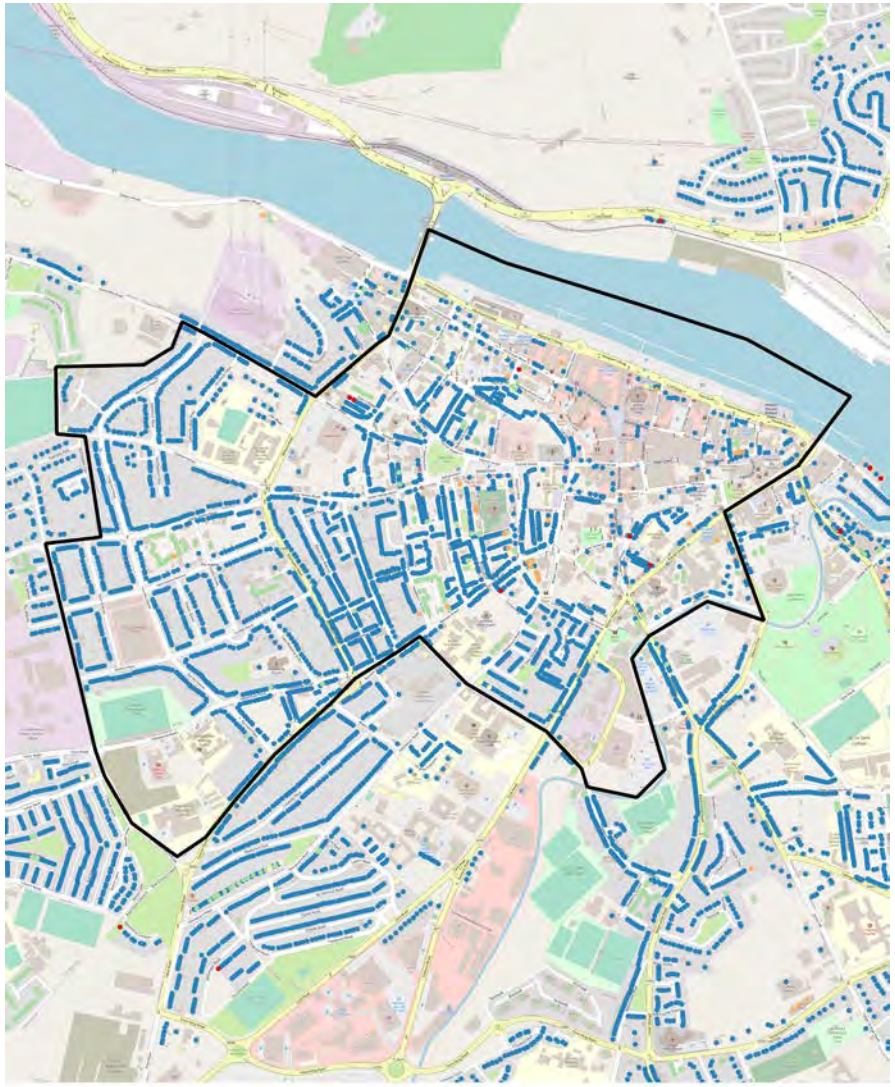
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
5	1	2

*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 1, Inner City

Residential Housing Developments Timeline



- Latest Developments (2018 to 2020 Q2)
- Waterford CDP 12-17 (2012 to 2017)
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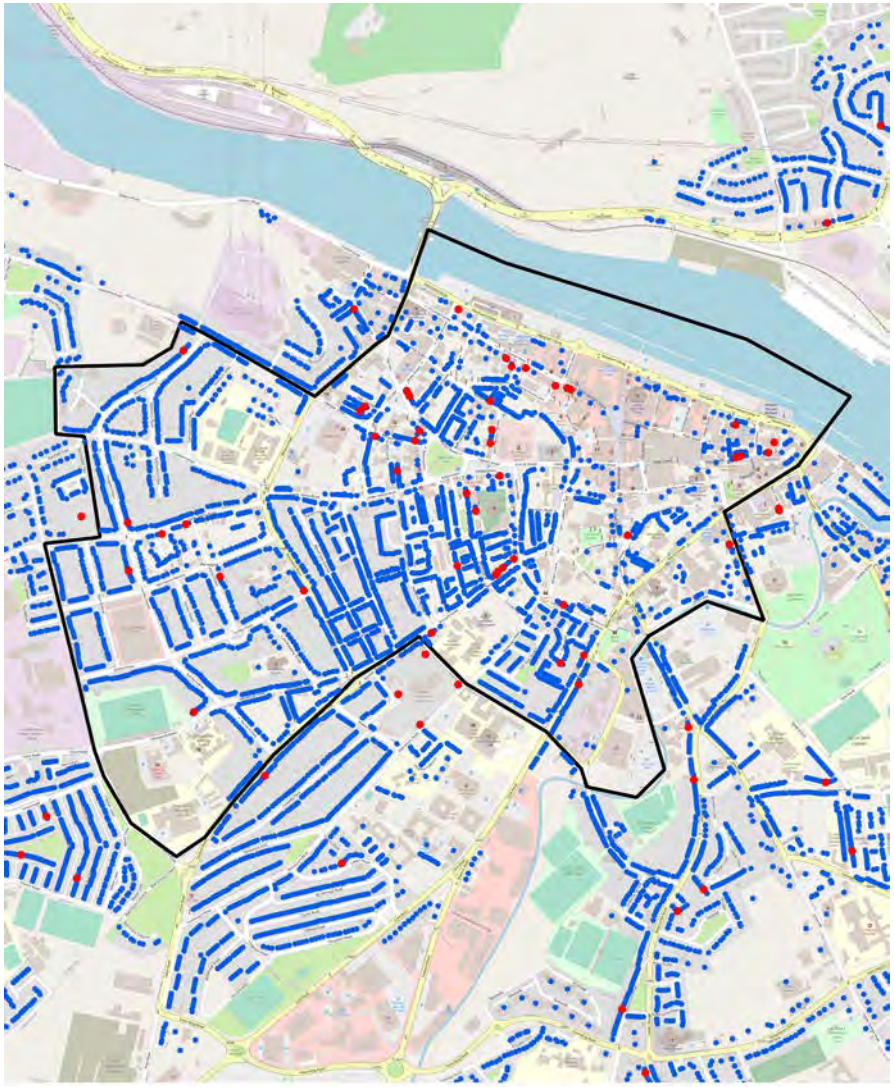
- Pre Boom (Pre 2001)

Housing Vacancy (GeoDirectory Q2 2020)



- Residential Properties (Vacant)
- Residential Properties (Occupied)

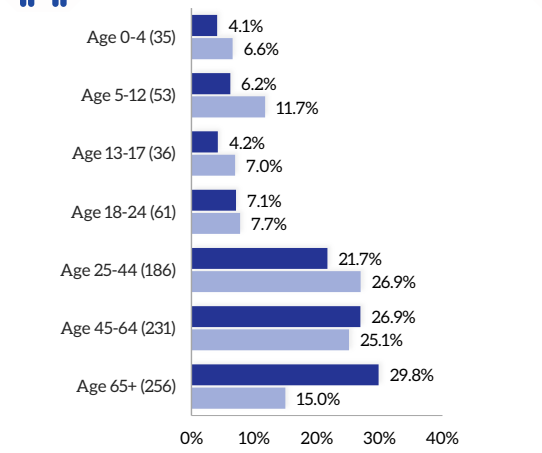
Sub-Area 2, Ferrybank

Key socio-economic overview, 2016

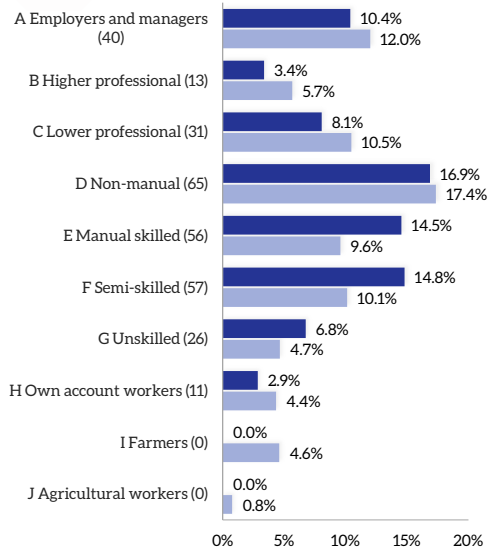
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



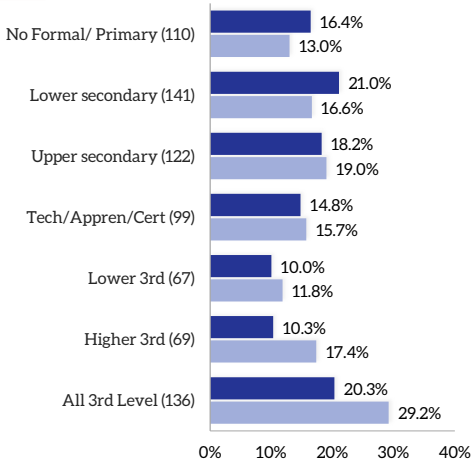
Socio-Economic Group



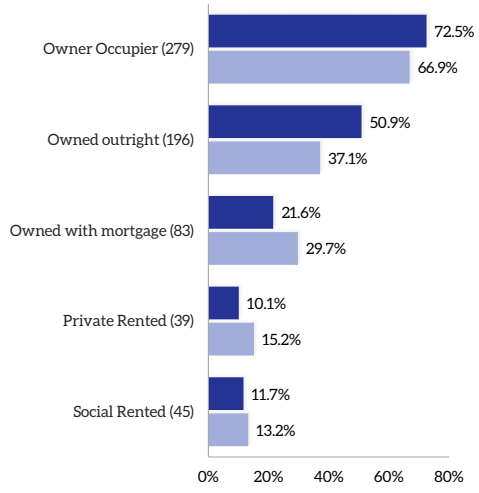
Total Population

Total	% Waterford Total
858	0.7%

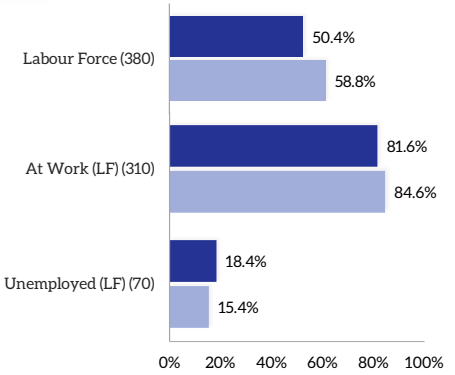
Education Attainment



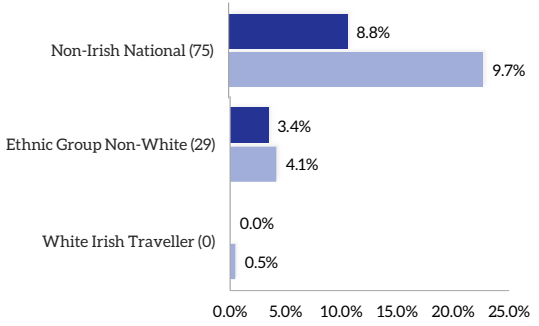
Housing Tenure



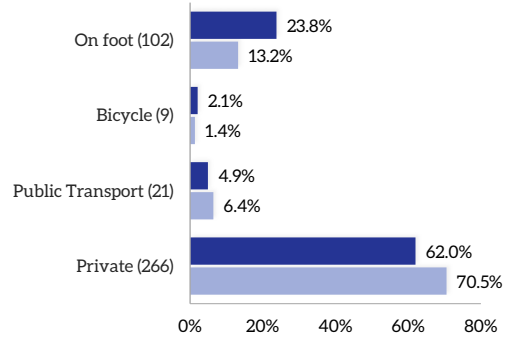
Labour Force



Nationality & Ethnicity

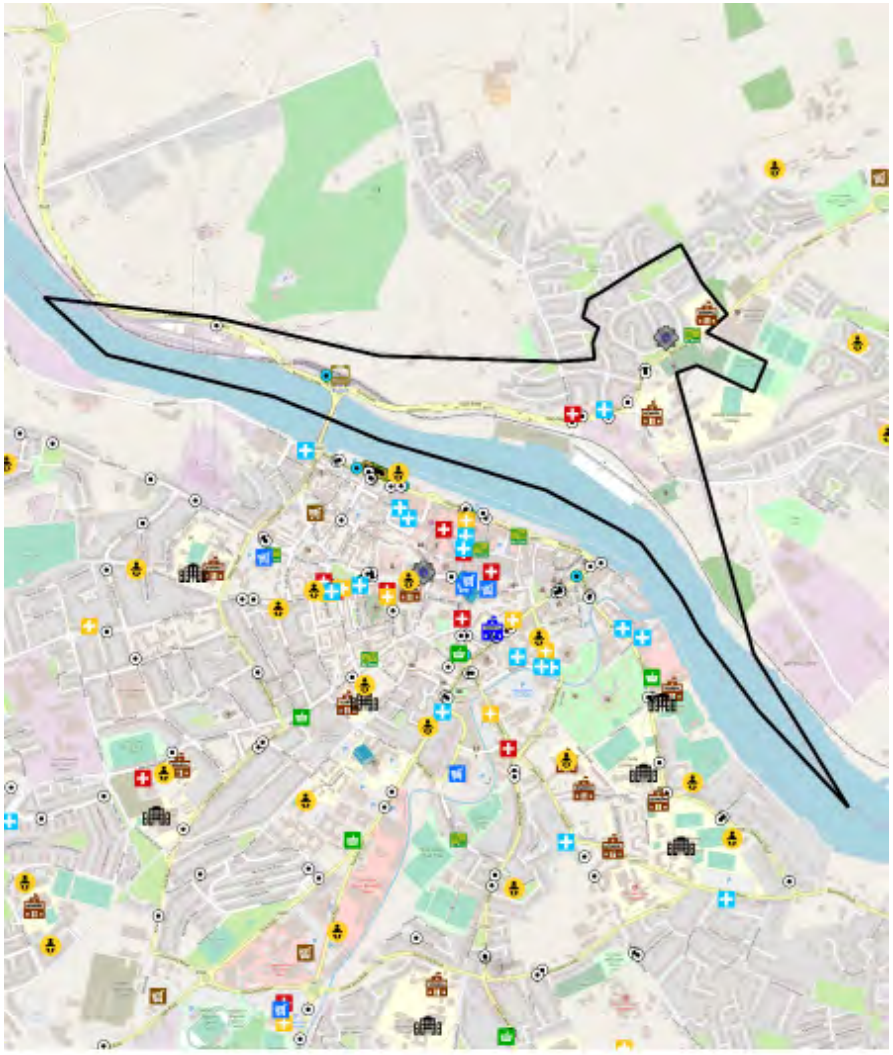


Mode of Travel



Sub-Area 2, Ferrybank

Sub-Area 2, Facilities



Education

Crèche	Primary School	Secondary School
0	2	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	1	1

Travel

Bus Stops	Rail Station
8	1

Services

Fire Station	Garda Station	Post Office	Library
0	1	1	0

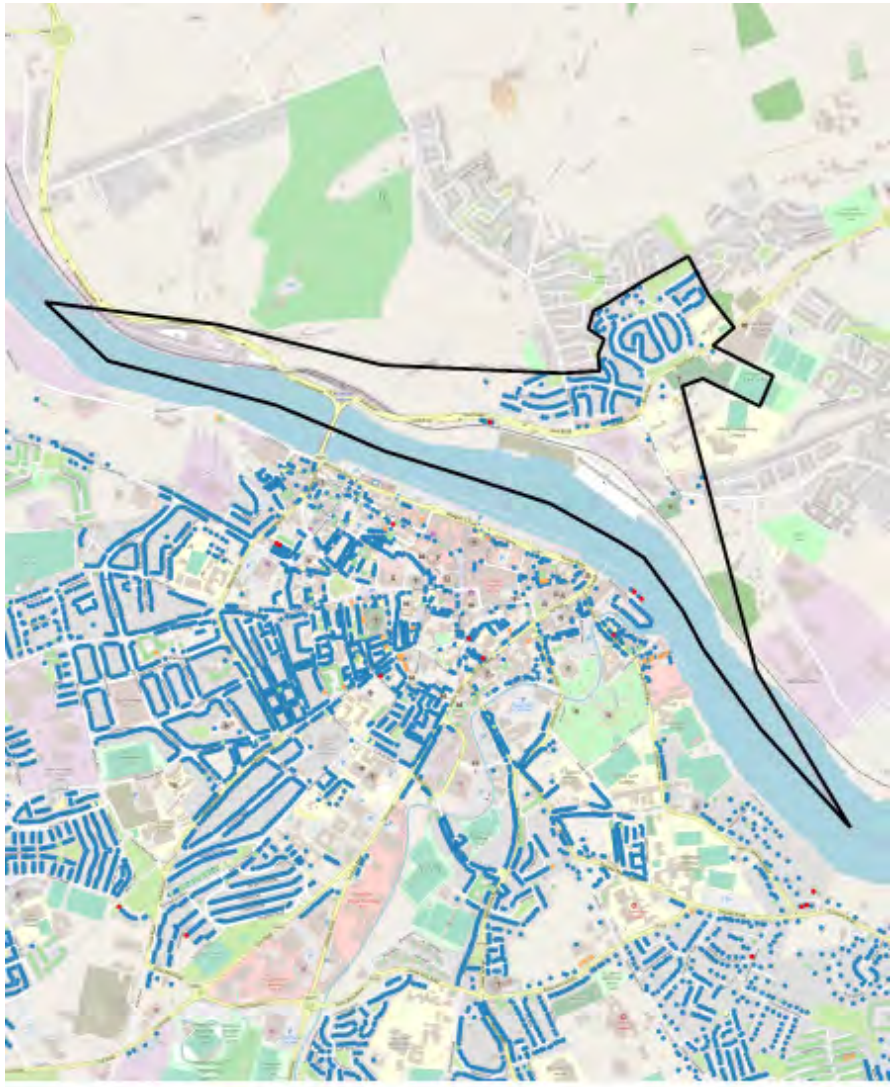
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	0

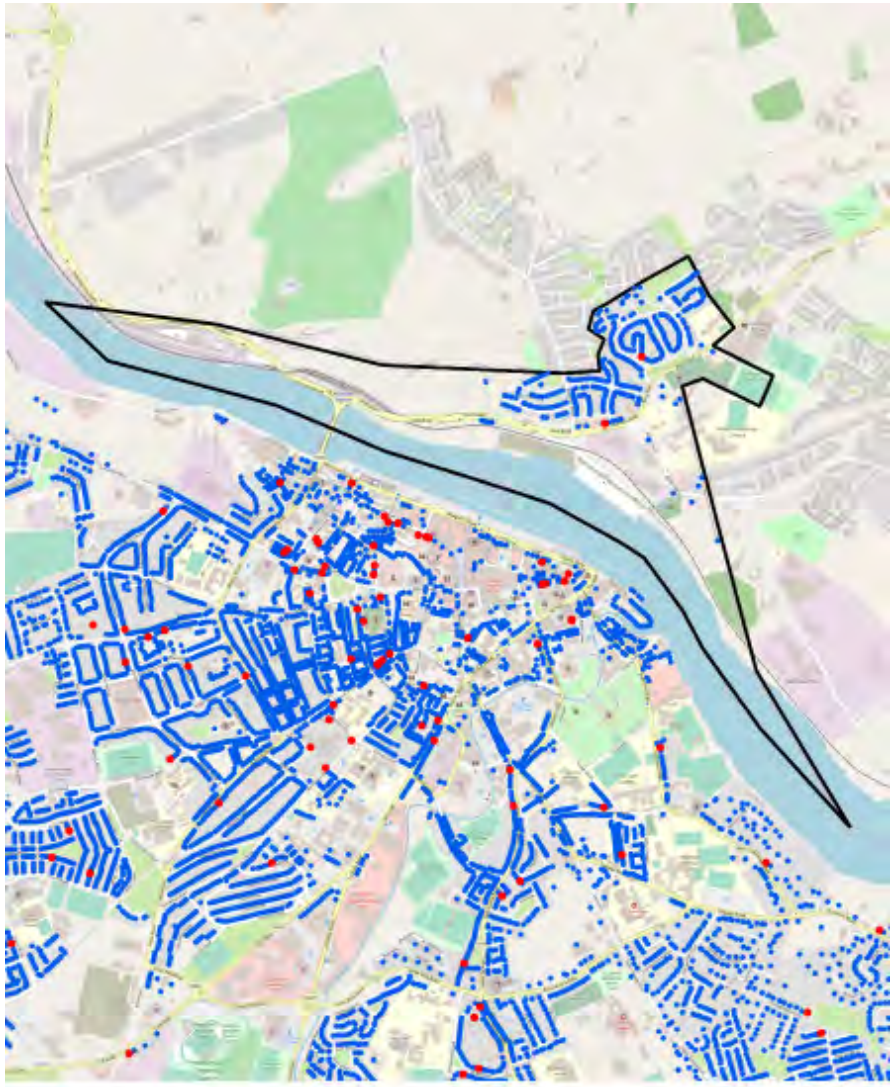
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 2, Ferrybank

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



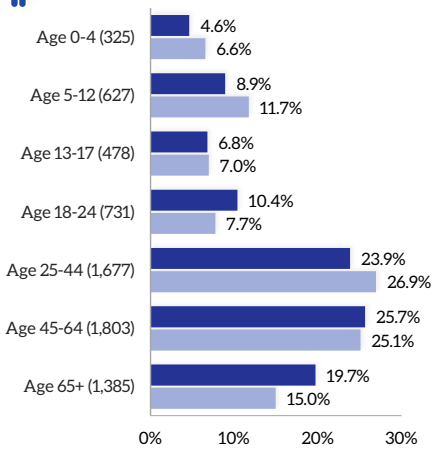
Sub-Area 3, Western Inner Suburbs

Key socio-economic overview, 2016

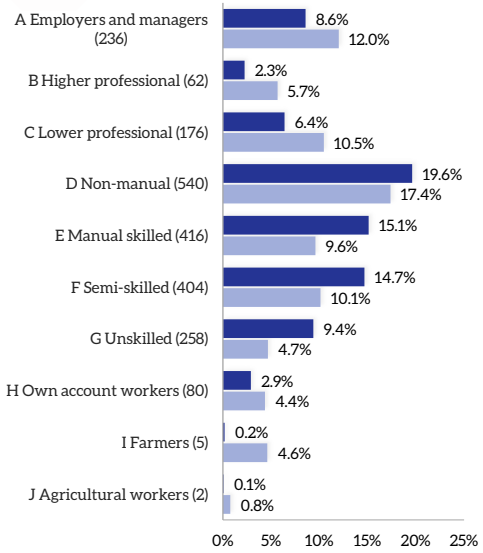
* Data sourced from CSO Census

Sub-Area Waterford County

Population Age



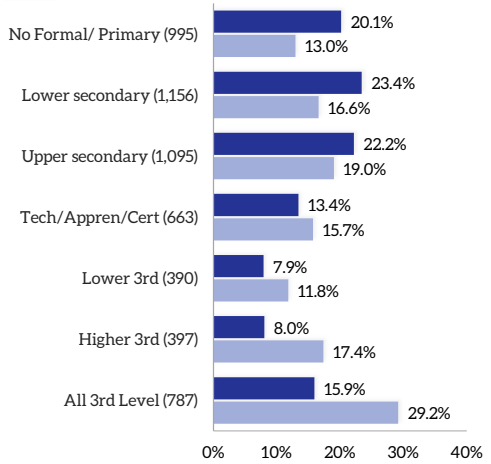
Socio-Economic Group



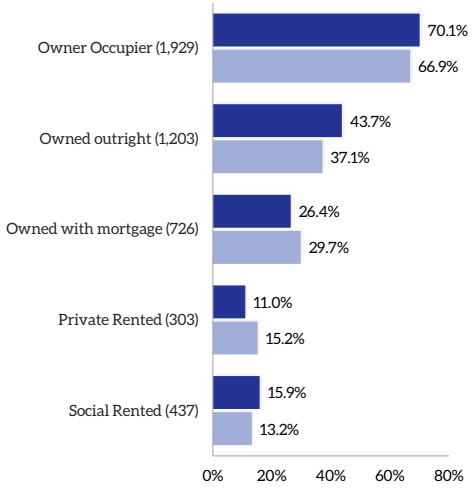
Total Population

Total	% Waterford Total
7,026	6.0%

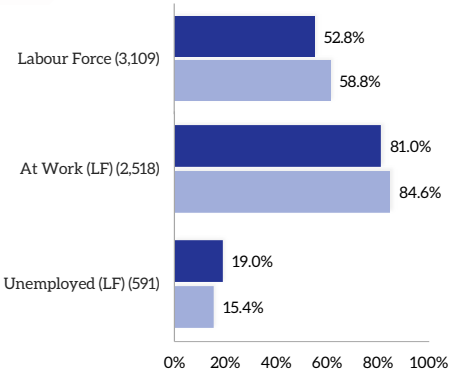
Education Attainment



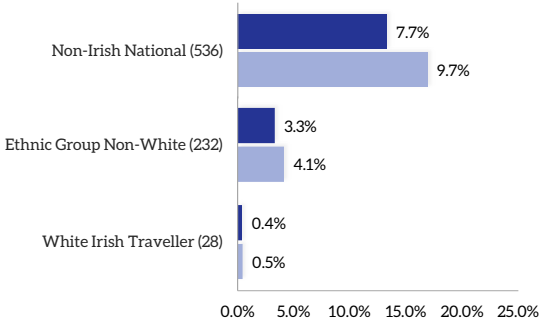
Housing Tenure



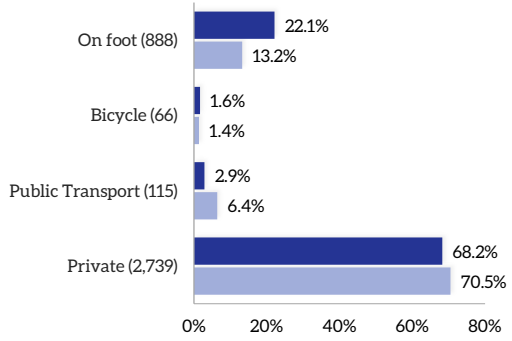
Labour Force



Nationality & Ethnicity

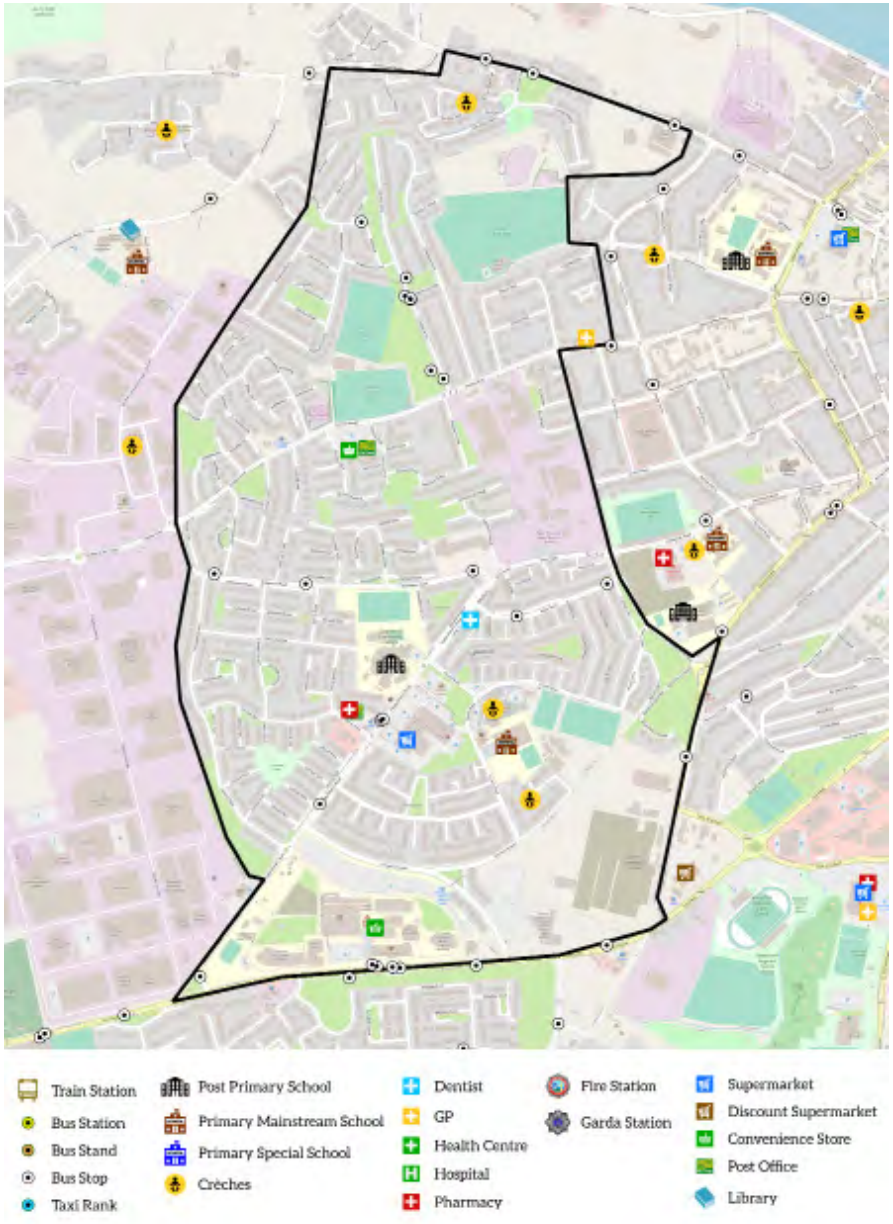


Mode of Travel



Sub-Area 3, Western Inner Suburbs

Sub-Area 3, Facilities



Education

Crèche	Primary School	Secondary School
3	1	1

Health

GP	Health Centre	Pharmacy	Dentist
1	0	3	1

Travel

Bus Stops	Rail Station
32	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	2	0

Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
1	0	2

*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 3, Western Inner Suburbs

Residential Housing Developments Timeline

Housing Vacancy (GeoDirectory Q2 2020)

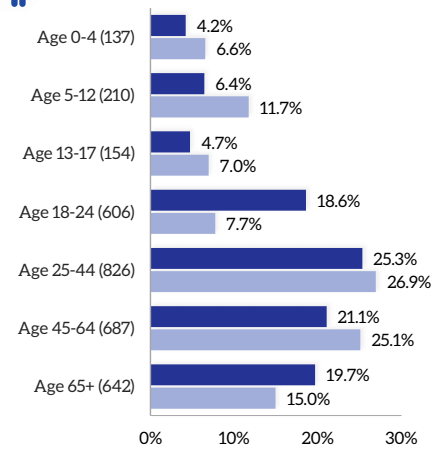
Sub-Area 4, Southern Inner Suburbs

Key socio-economic overview, 2016

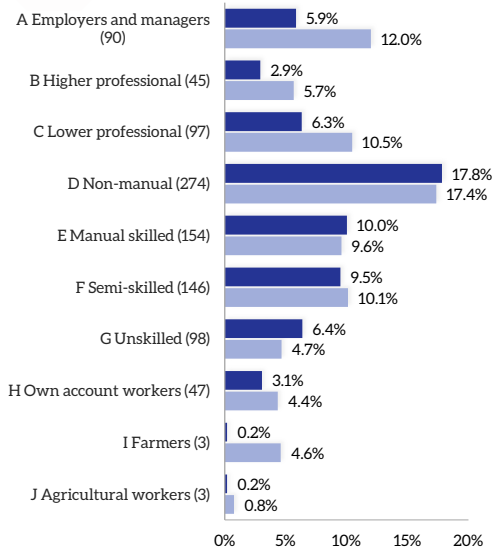
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



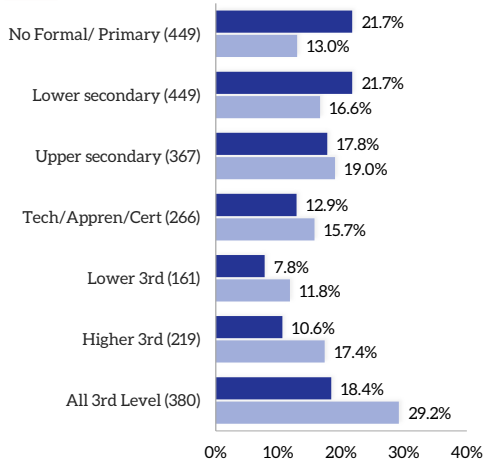
Socio-Economic Group



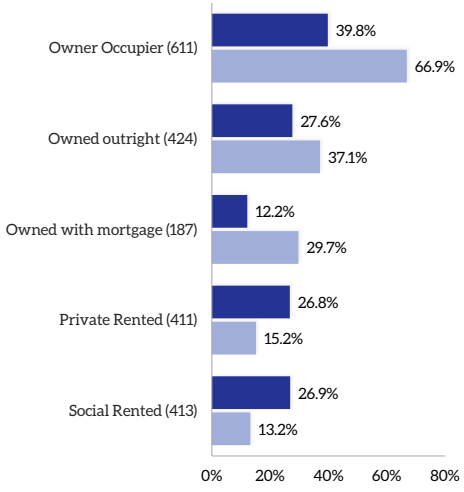
Total Population

Total	% Waterford Total
3,262	2.8%

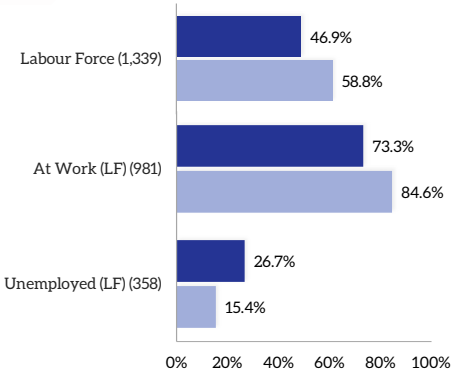
Education Attainment



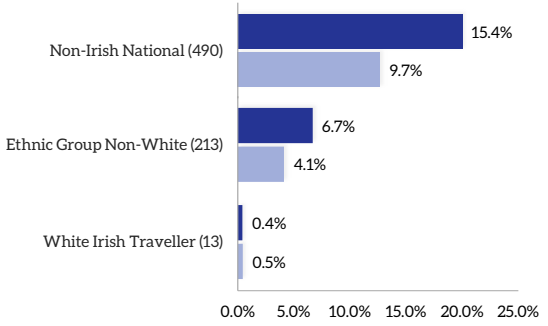
Housing Tenure



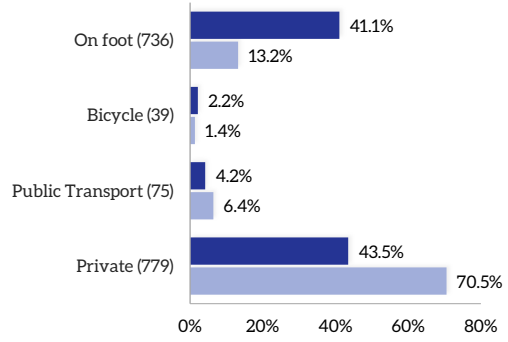
Labour Force



Nationality & Ethnicity

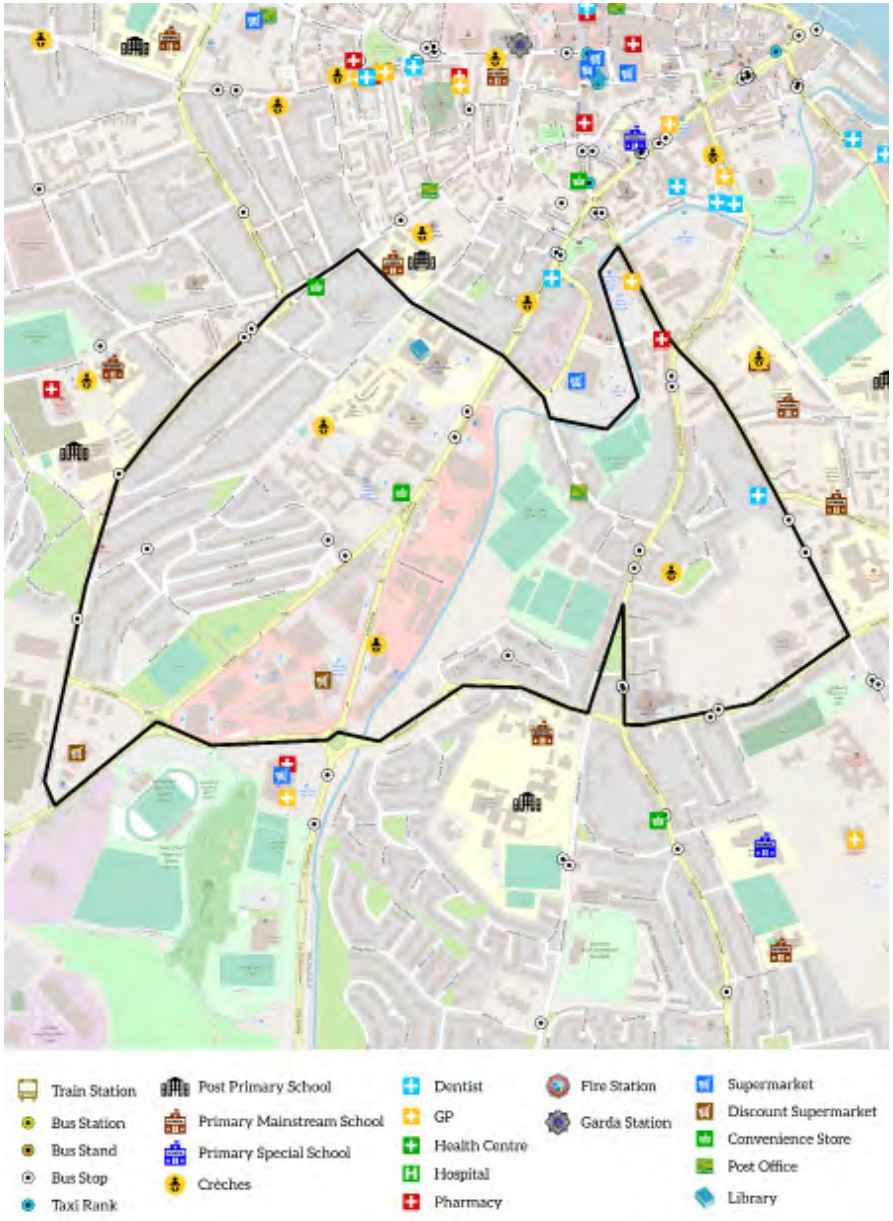


Mode of Travel



Sub-Area 4, Southern Inner Suburbs

Sub-Area 4, Facilities



Education

Crèche	Primary School	Secondary School
3	1	0

Health

GP	Health Centre	Pharmacy	Dentist
1	0	2	1

Travel

Bus Stops	Rail Station
20	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	1	1

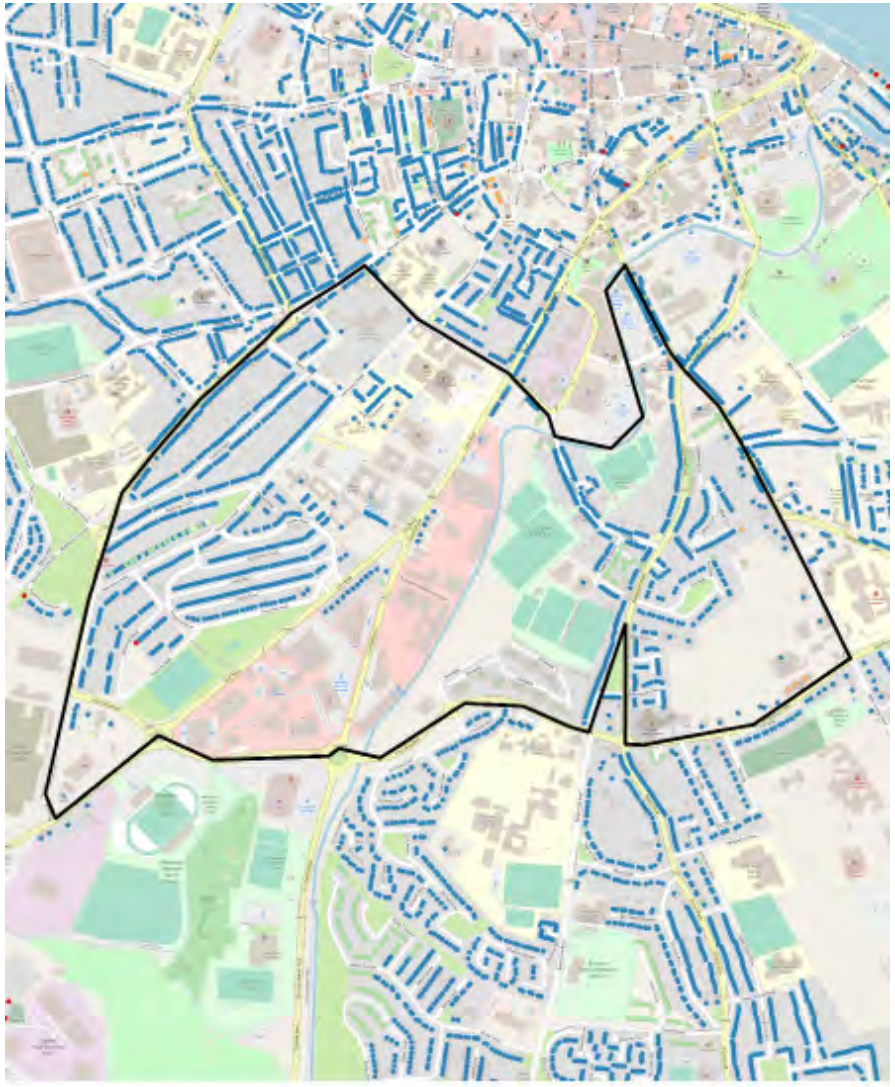
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	2	2

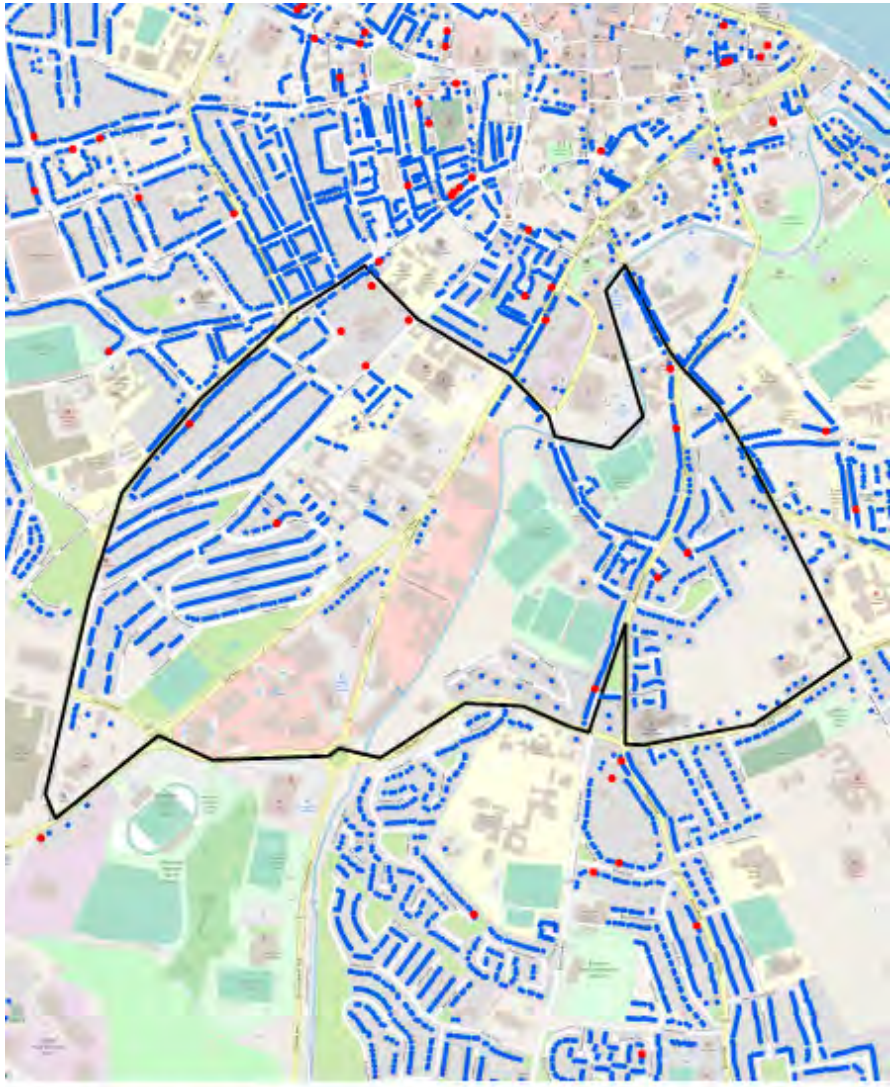
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 4, Southern Inner Suburbs

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



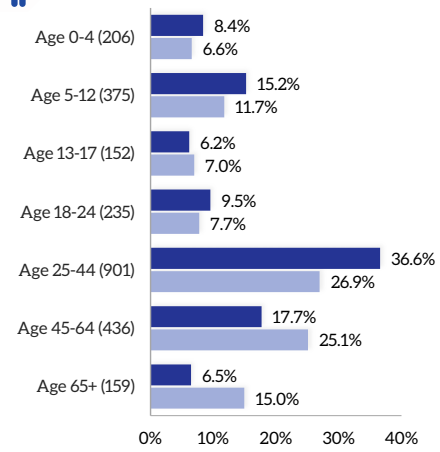
Sub-Area 5, North-Western Expansion Area

Key socio-economic overview, 2016

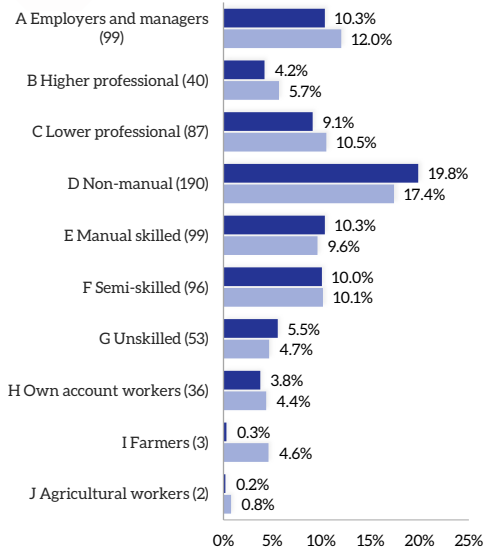
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



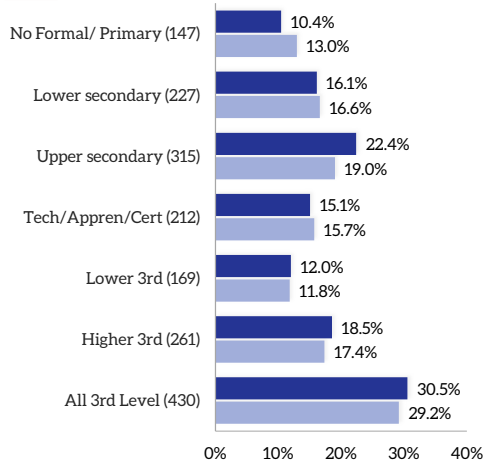
Socio-Economic Group



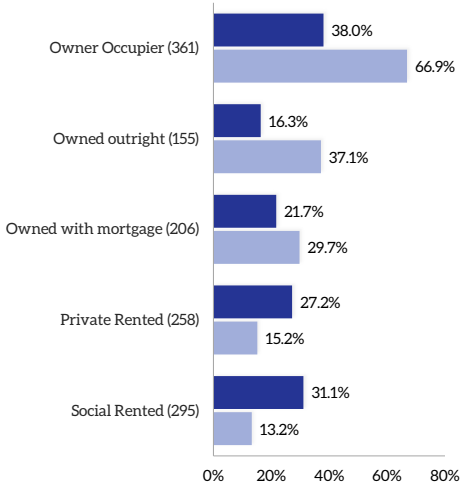
Total Population

Total	% Waterford Total
2,464	2.1%

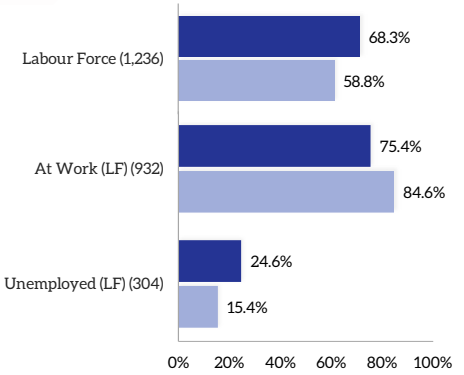
Education Attainment



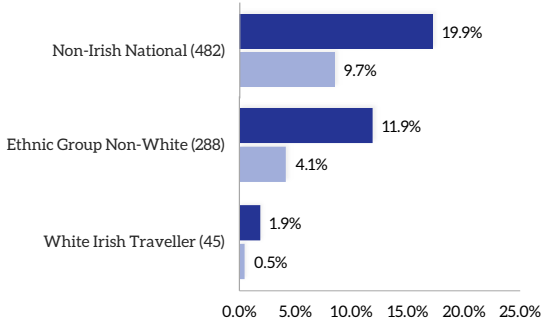
Housing Tenure



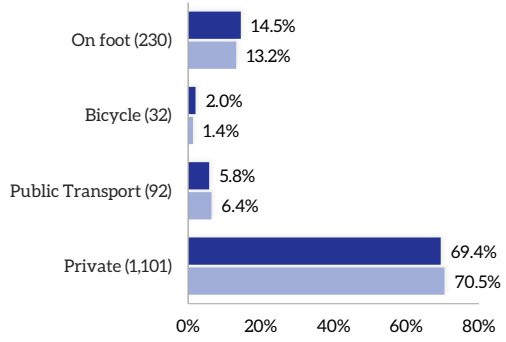
Labour Force



Nationality & Ethnicity

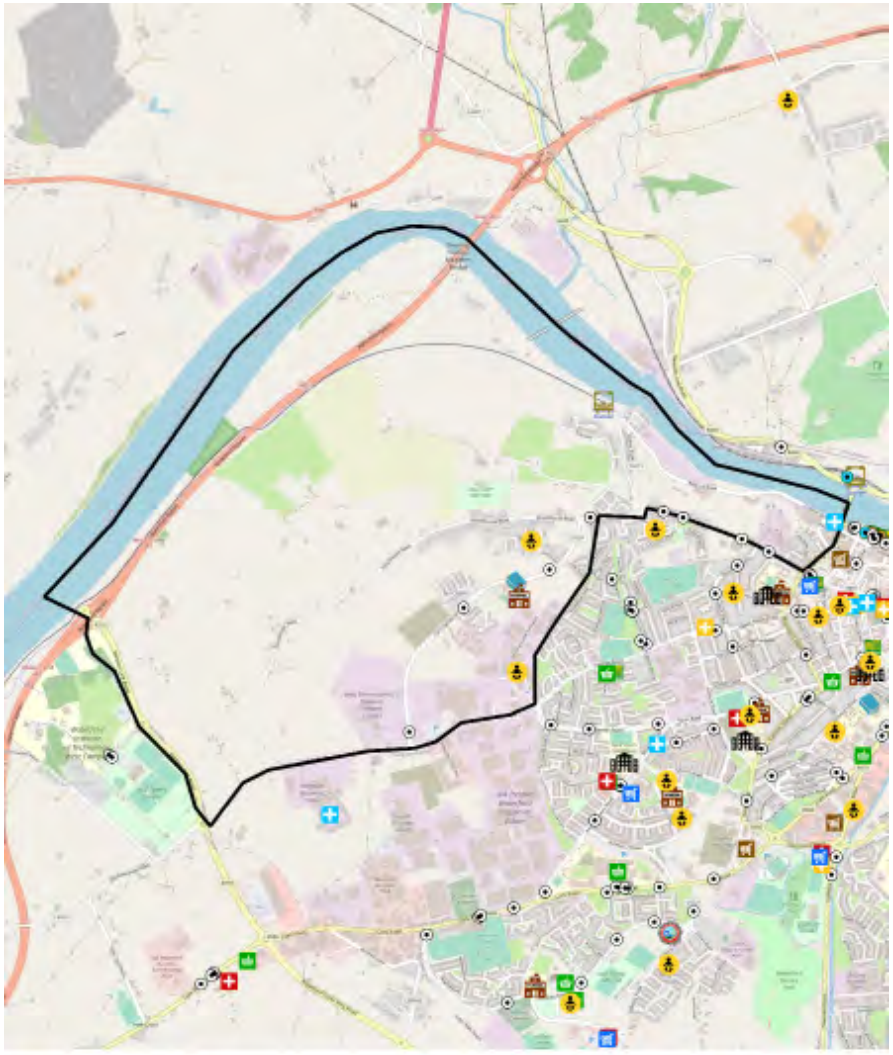


Mode of Travel



Sub-Area 5, North-Western Expansion Area

Sub-Area 5, Facilities



Education

Crèche	Primary School	Secondary School
2	1	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	0	1

Travel

Bus Stops	Rail Station
9	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	0	1

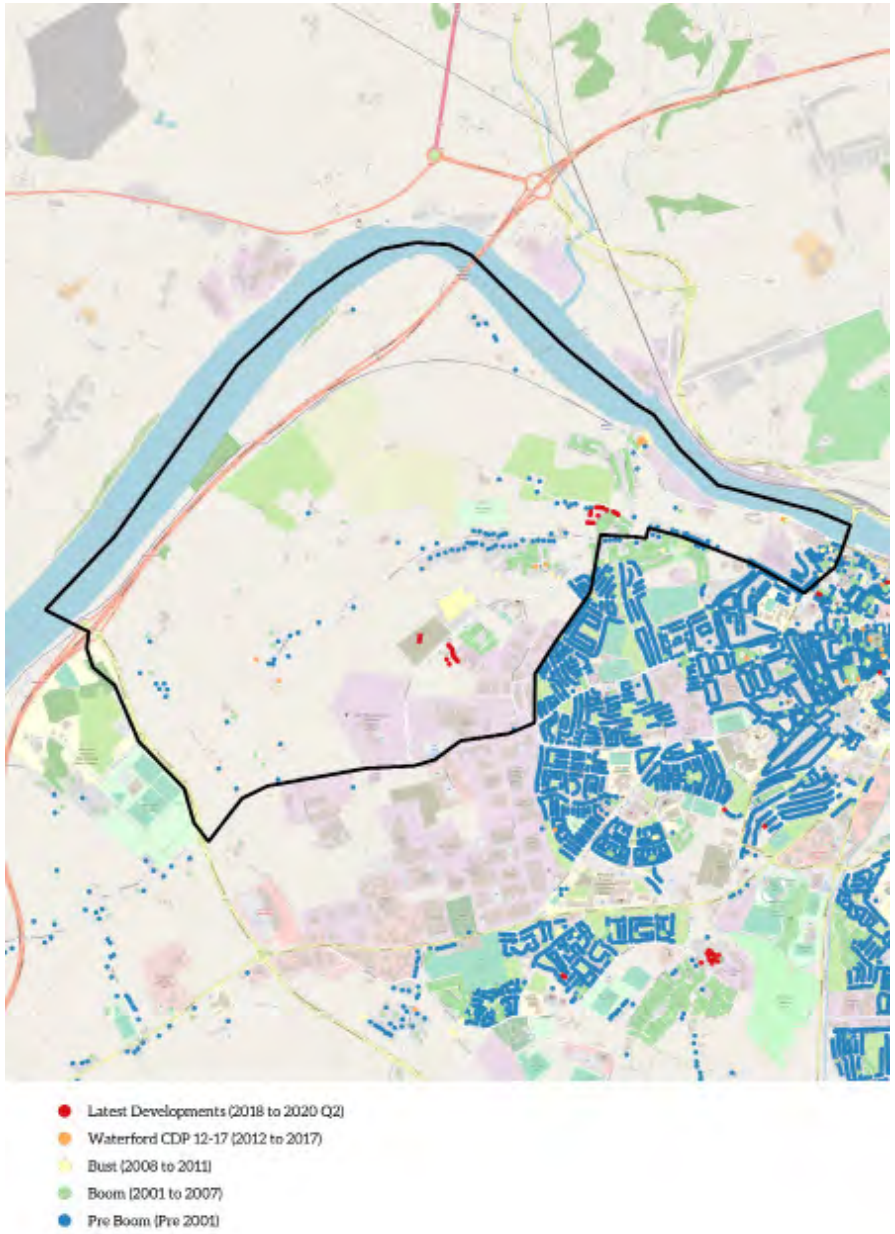
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	0

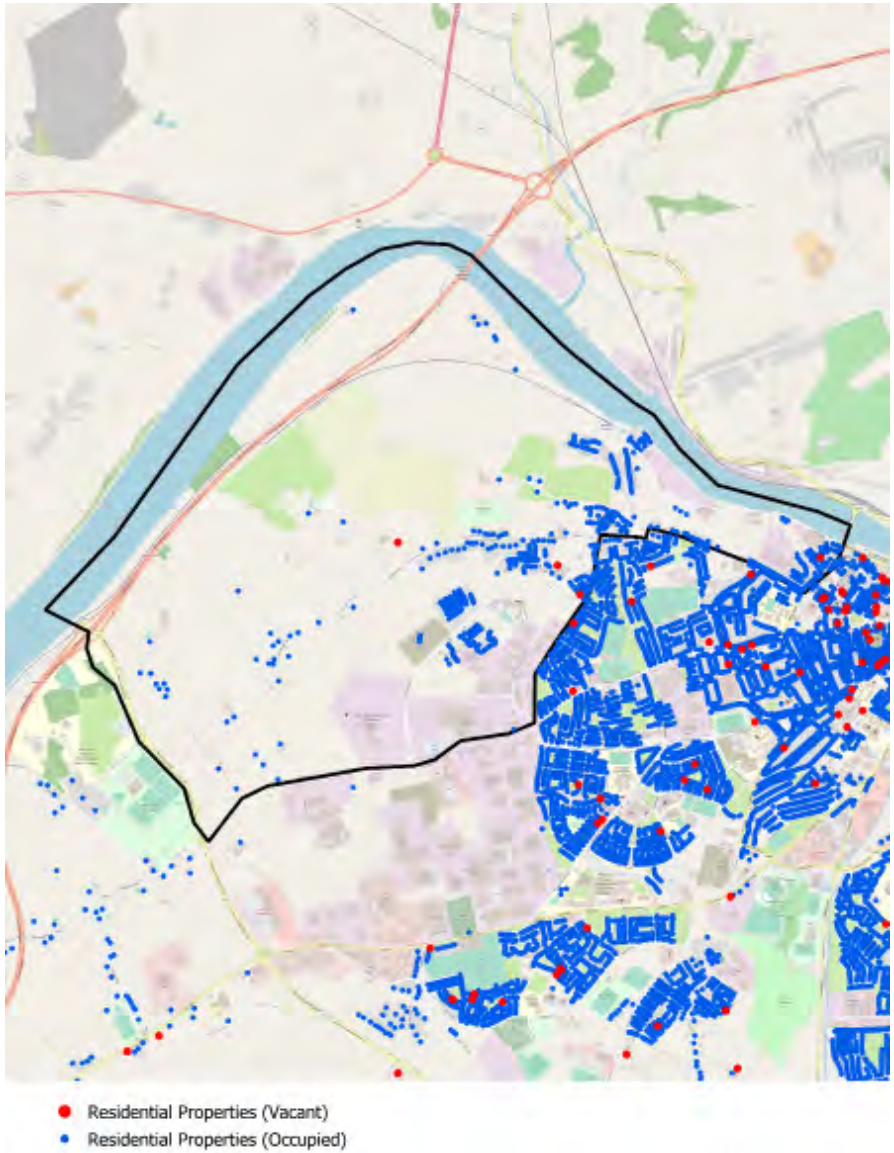
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 5, North-Western Expansion Area

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



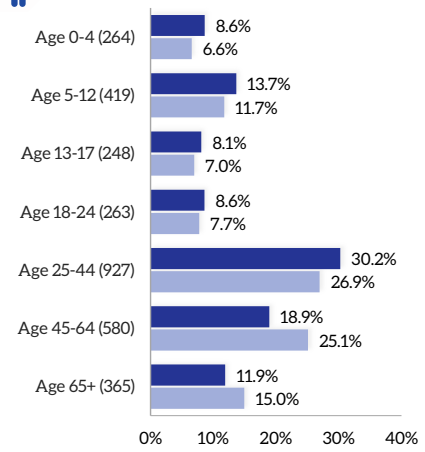
Sub-Area 6, Ballybeg

Key socio-economic overview, 2016

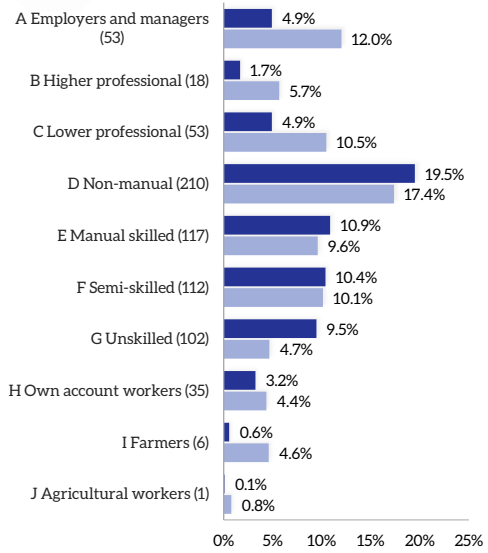
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



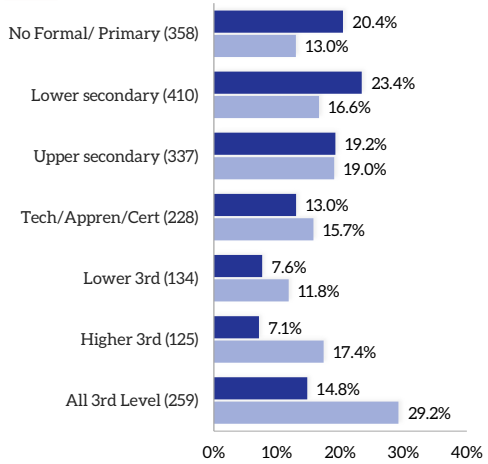
Socio-Economic Group



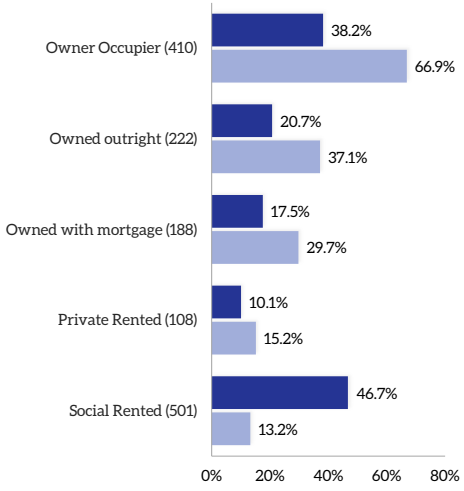
Total Population

Total	% Waterford Total
3,066	2.6%

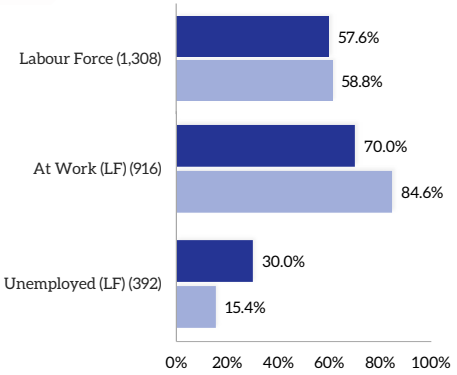
Education Attainment



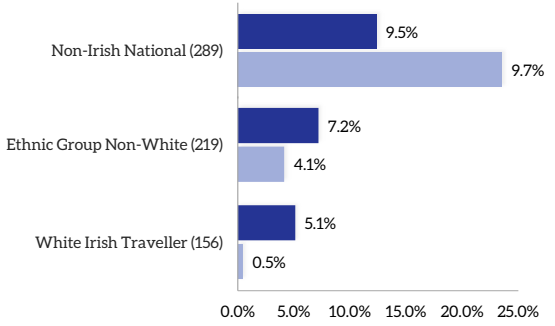
Housing Tenure



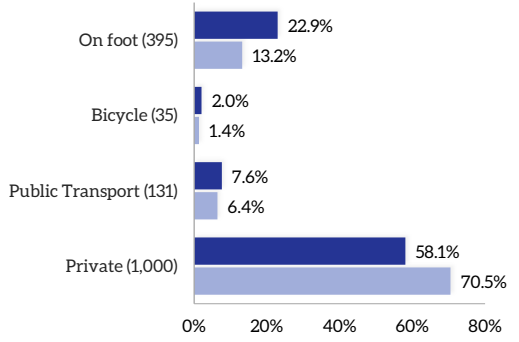
Labour Force



Nationality & Ethnicity

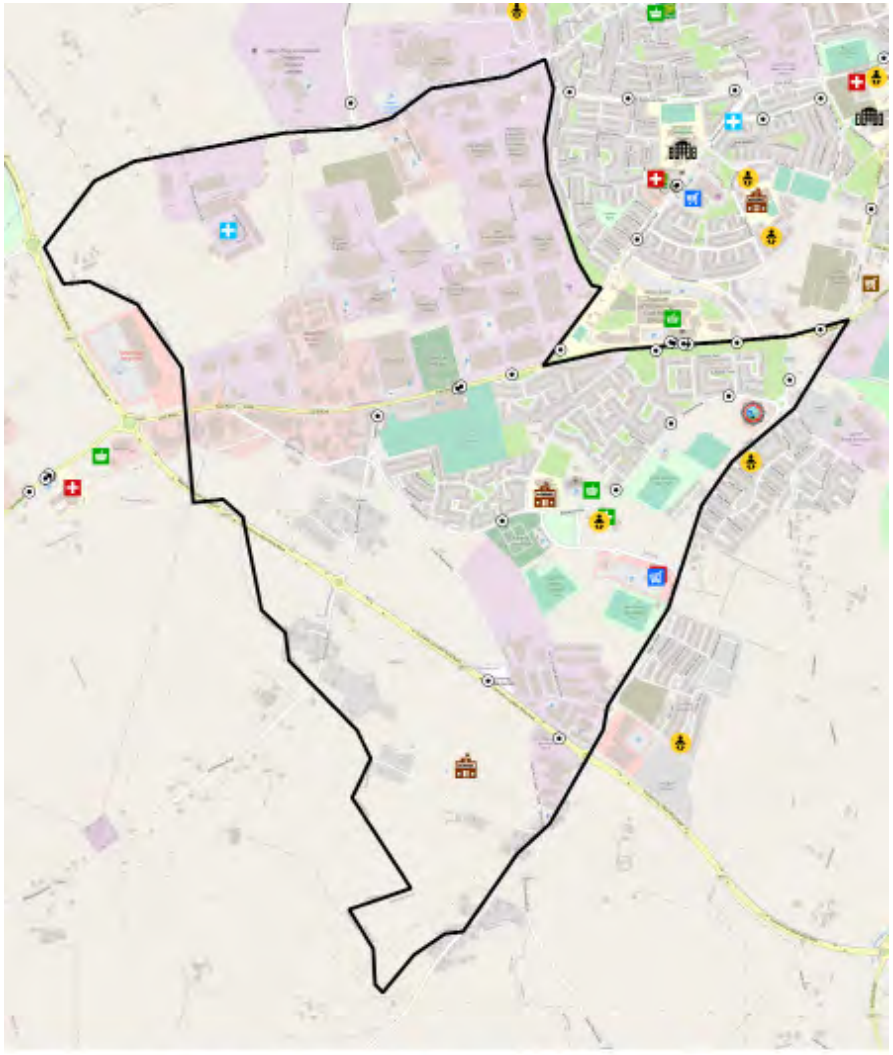


Mode of Travel



Sub-Area 6, Ballybeg

Sub-Area 6, Facilities



Education

Crèche	Primary School	Secondary School
1	0	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	1	1

Travel

Bus Stops	Rail Station
12	0

Services

Fire Station	Garda Station	Post Office	Library
1	0	0	0

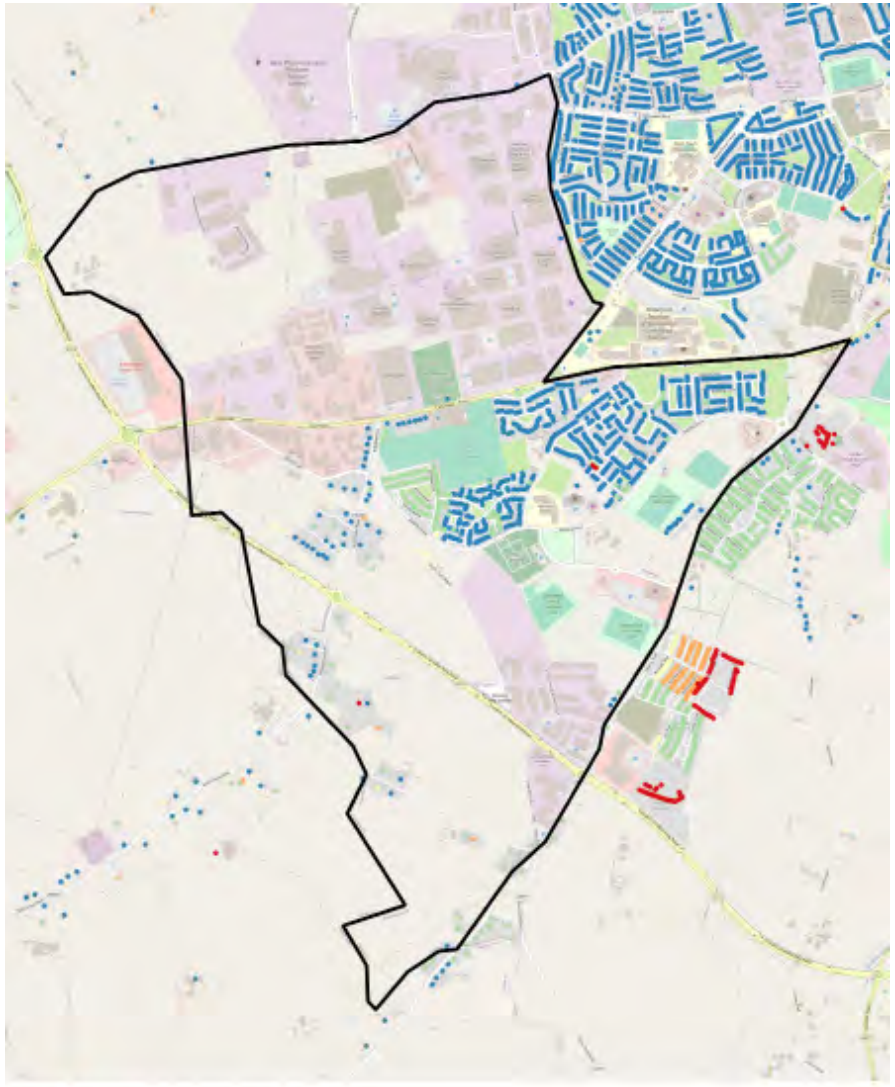
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
1	0	1

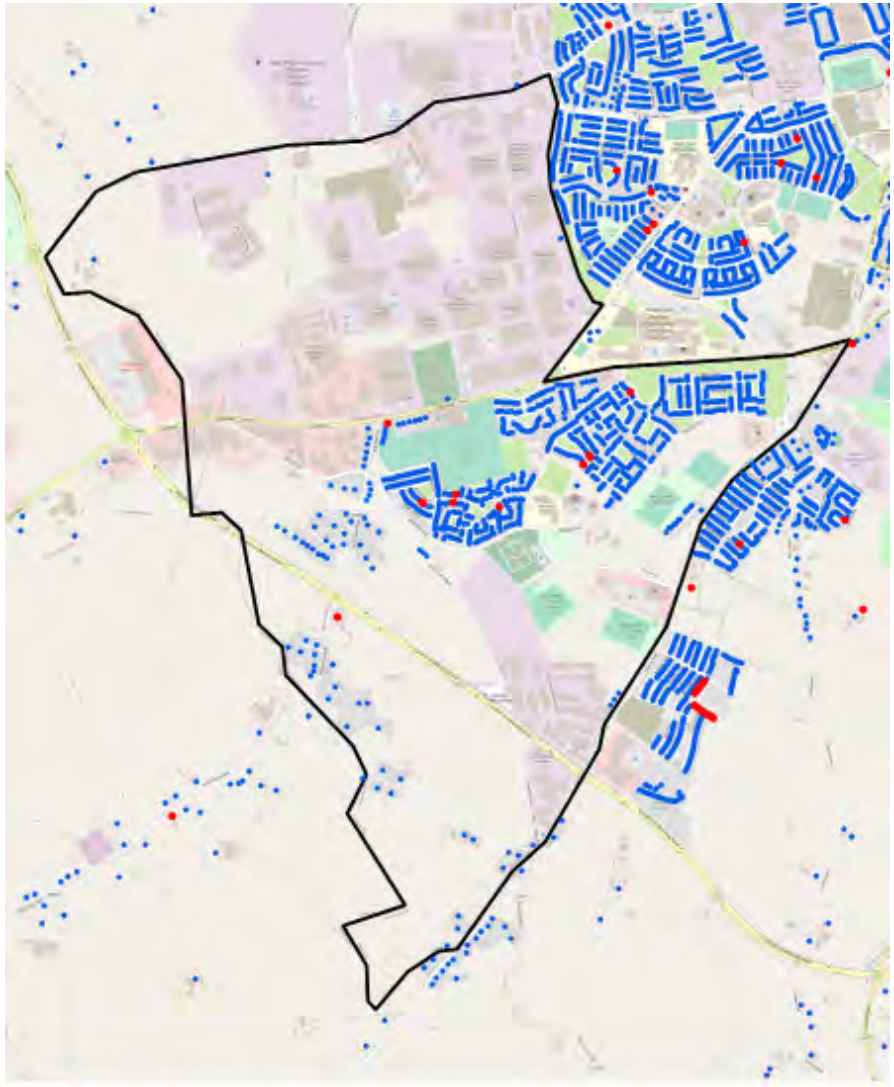
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 6, Ballybeg

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



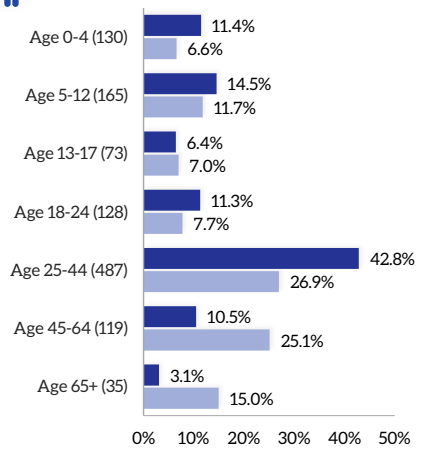
Sub-Area 7, Kilbarry

Key socio-economic overview, 2016

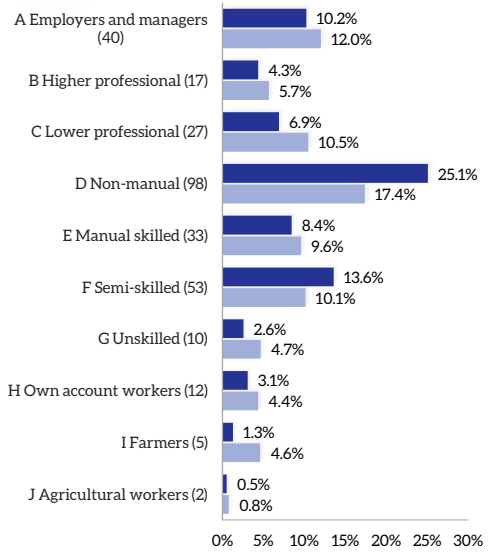
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



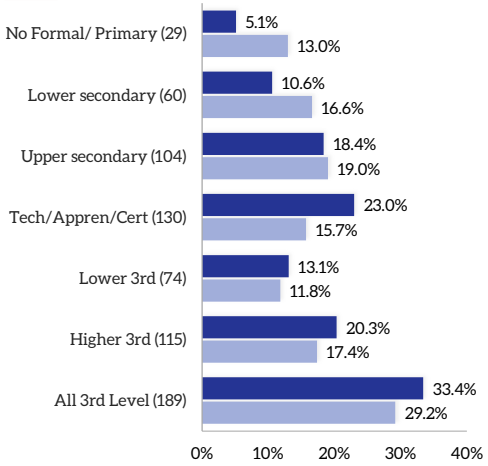
Socio-Economic Group



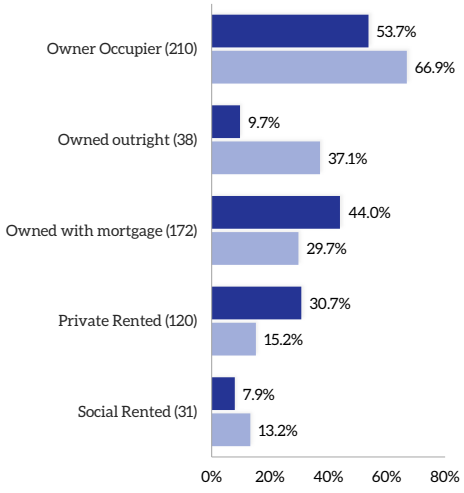
Total Population

Total	% Waterford Total
1,137	1.0%

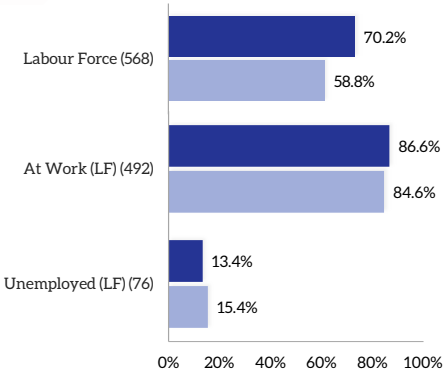
Education Attainment



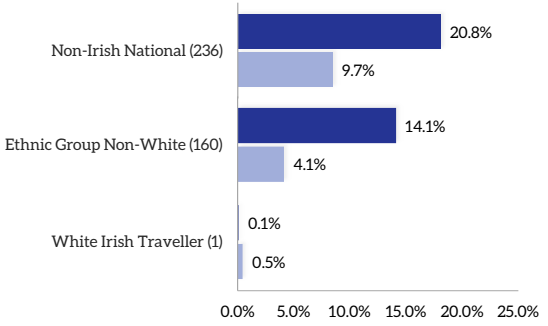
Housing Tenure



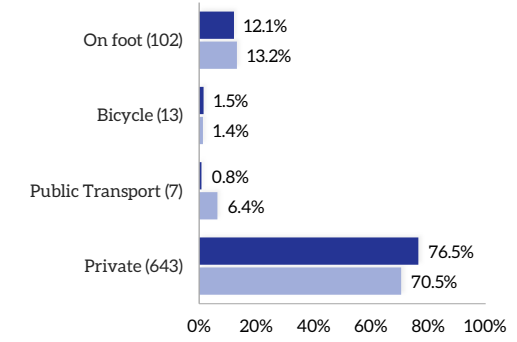
Labour Force



Nationality & Ethnicity

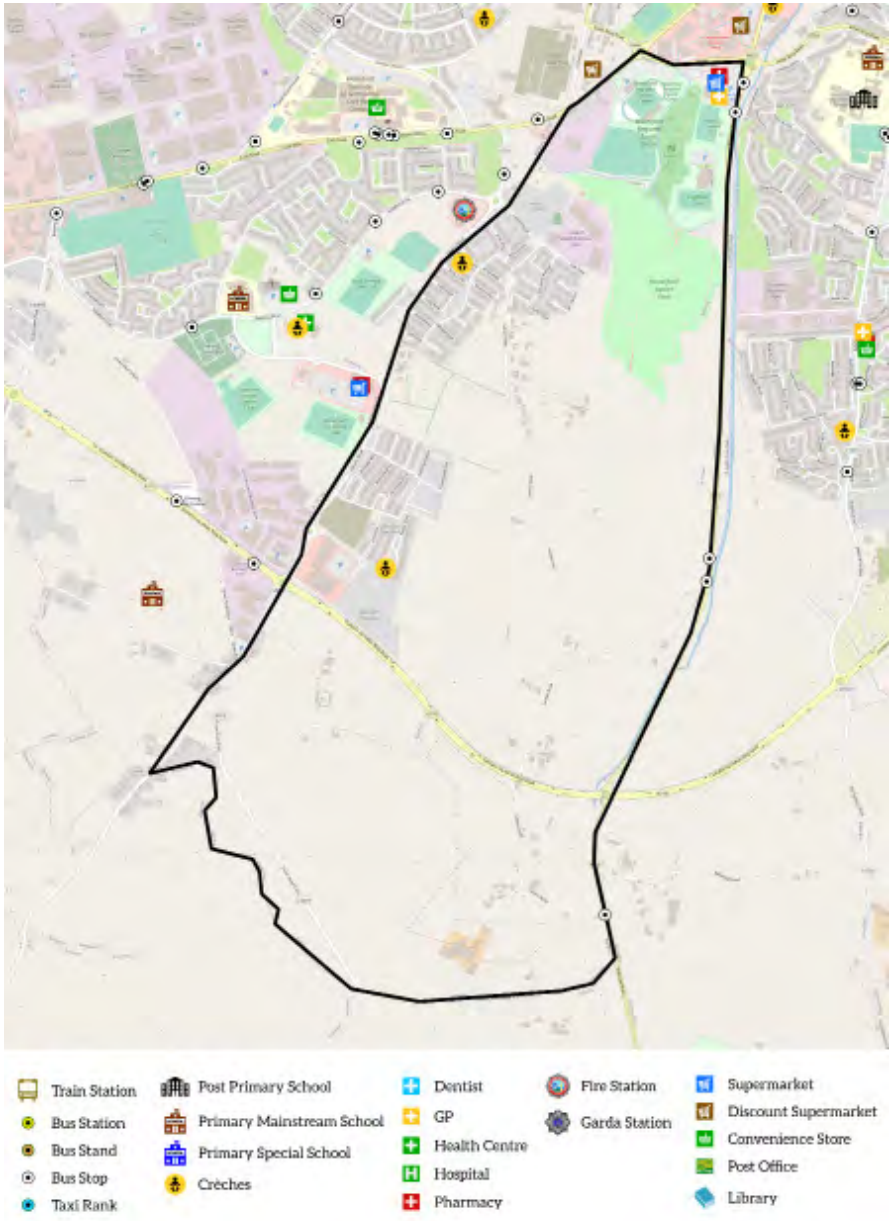


Mode of Travel



Sub-Area 7, Kilbarry

Sub-Area 7, Facilities



Education

Crèche	Primary School	Secondary School
2	0	0

Health

GP	Health Centre	Pharmacy	Dentist
1	0	1	0

Travel

Bus Stops	Rail Station
5	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	0	0

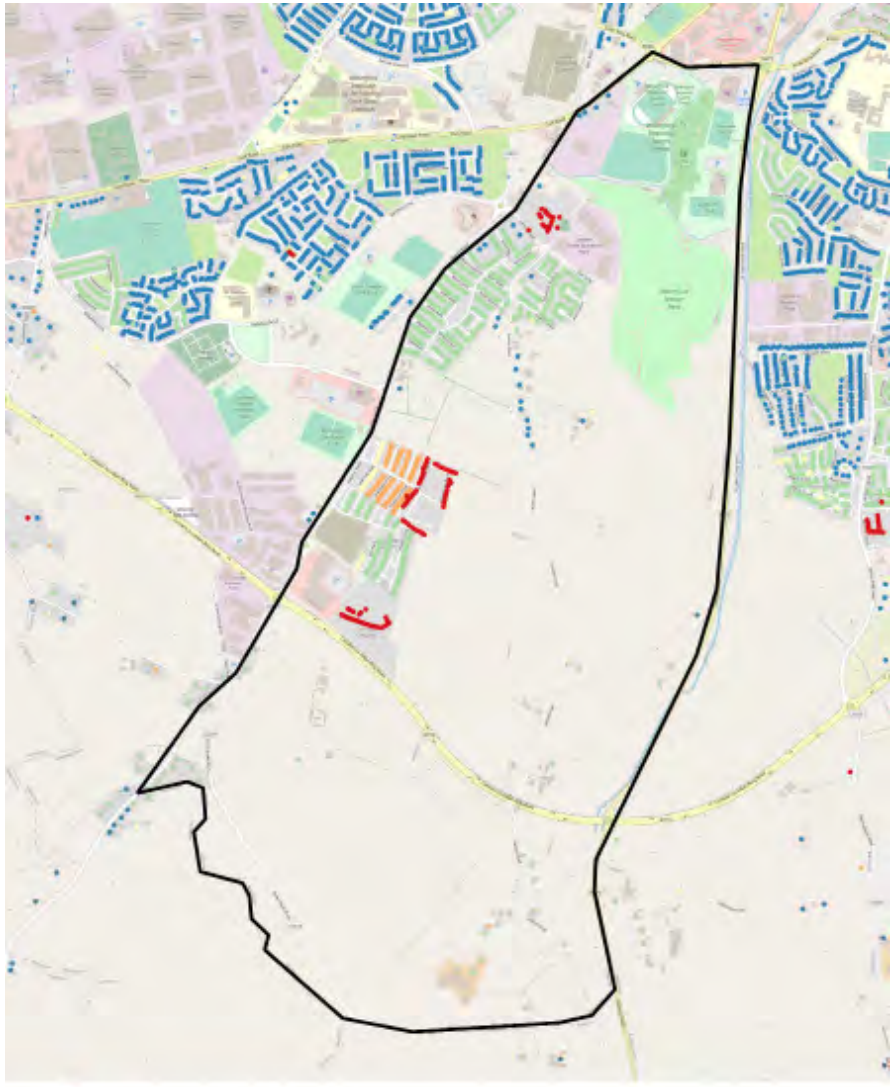
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
1	0	0

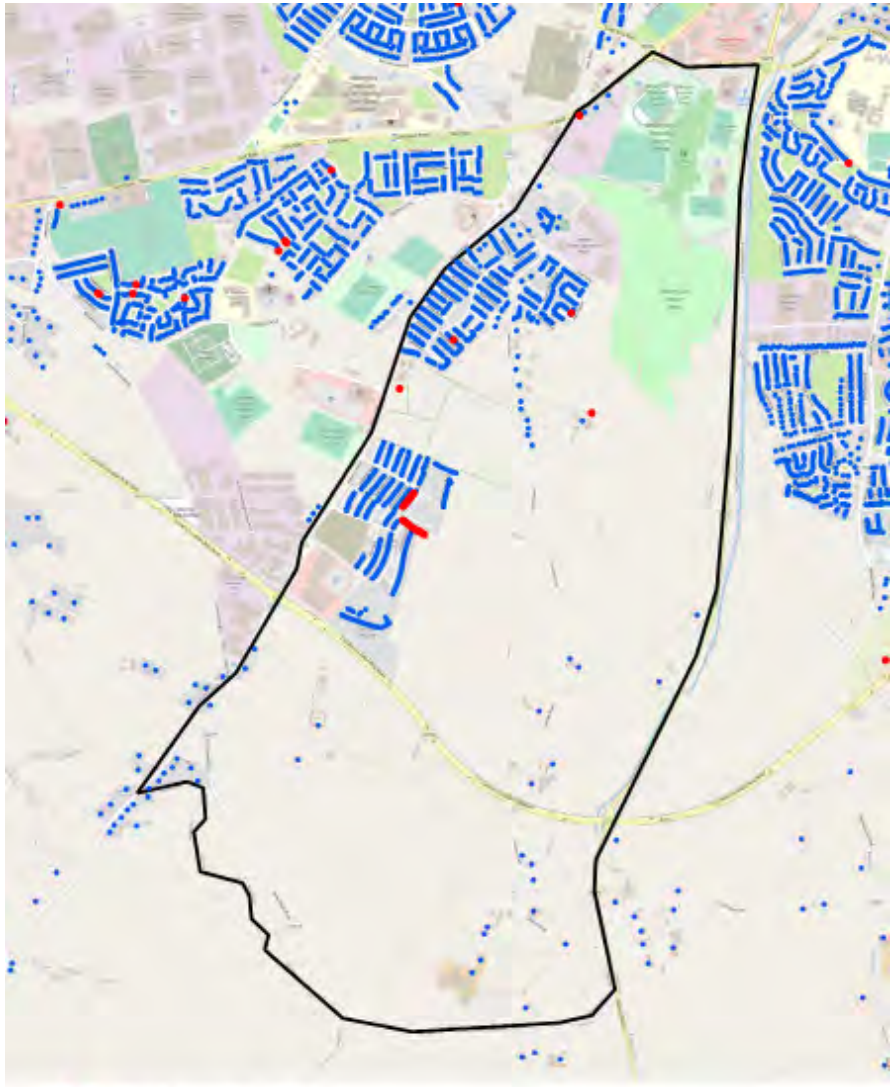
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 7, Kilbarry

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



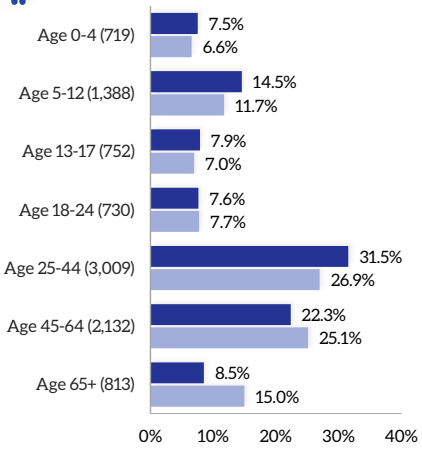
Sub-Area 8, Sacred Heart Neighbourhood

Key socio-economic overview, 2016

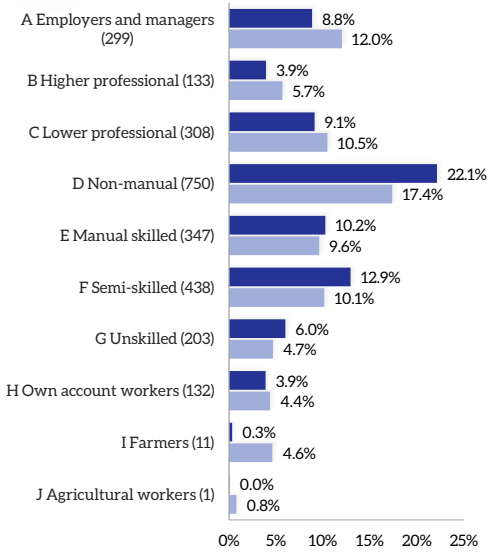
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



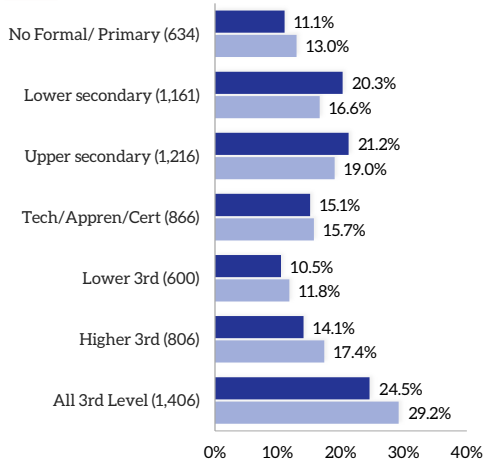
Socio-Economic Group



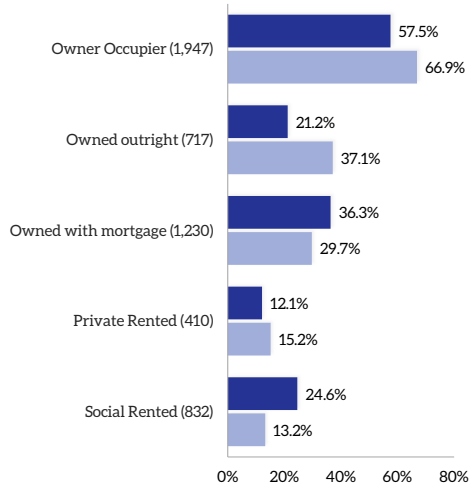
Total Population

Total	% Waterford Total
9,543	8.2%

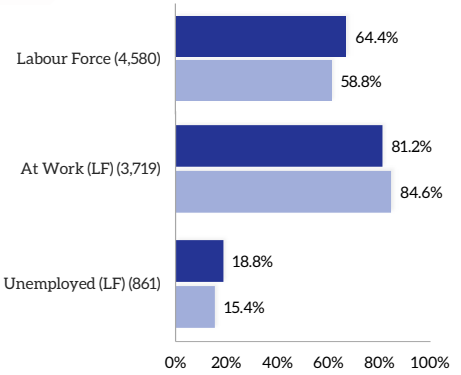
Education Attainment



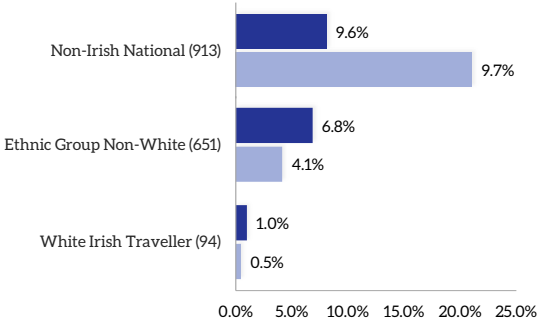
Housing Tenure



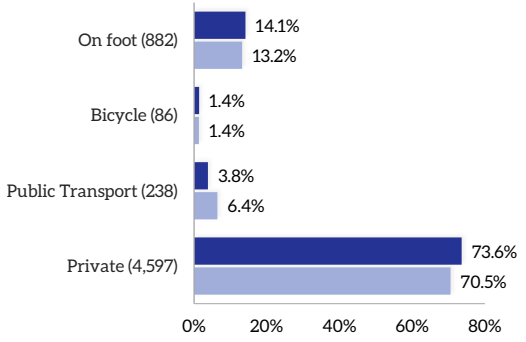
Labour Force



Nationality & Ethnicity

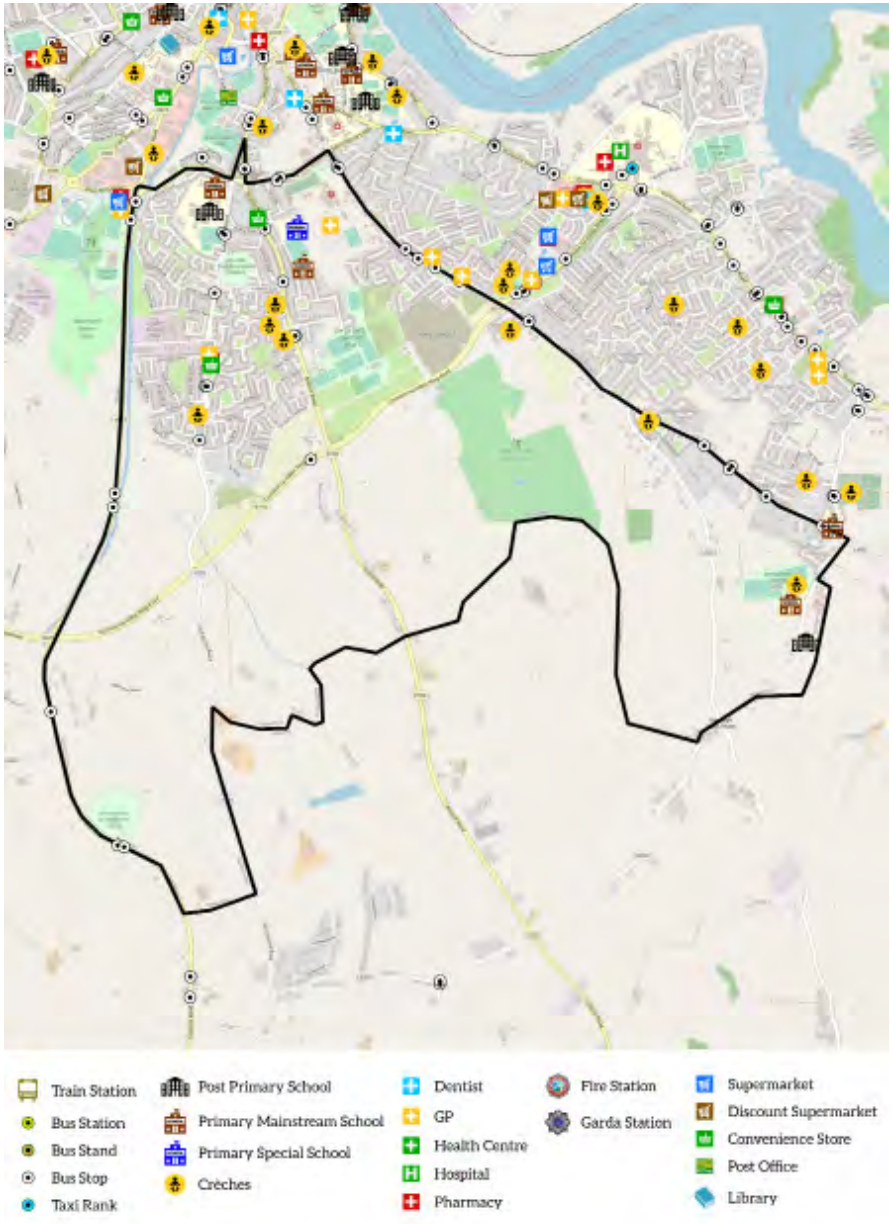


Mode of Travel



Sub-Area 8, Sacred Heart Neighbourhood

Sub-Area 8, Facilities



Education

Crèche	Primary School	Secondary School
7	4	2

Health

GP	Health Centre	Pharmacy	Dentist
4	1	1	0

Travel

Bus Stops	Rail Station
38	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	1	0

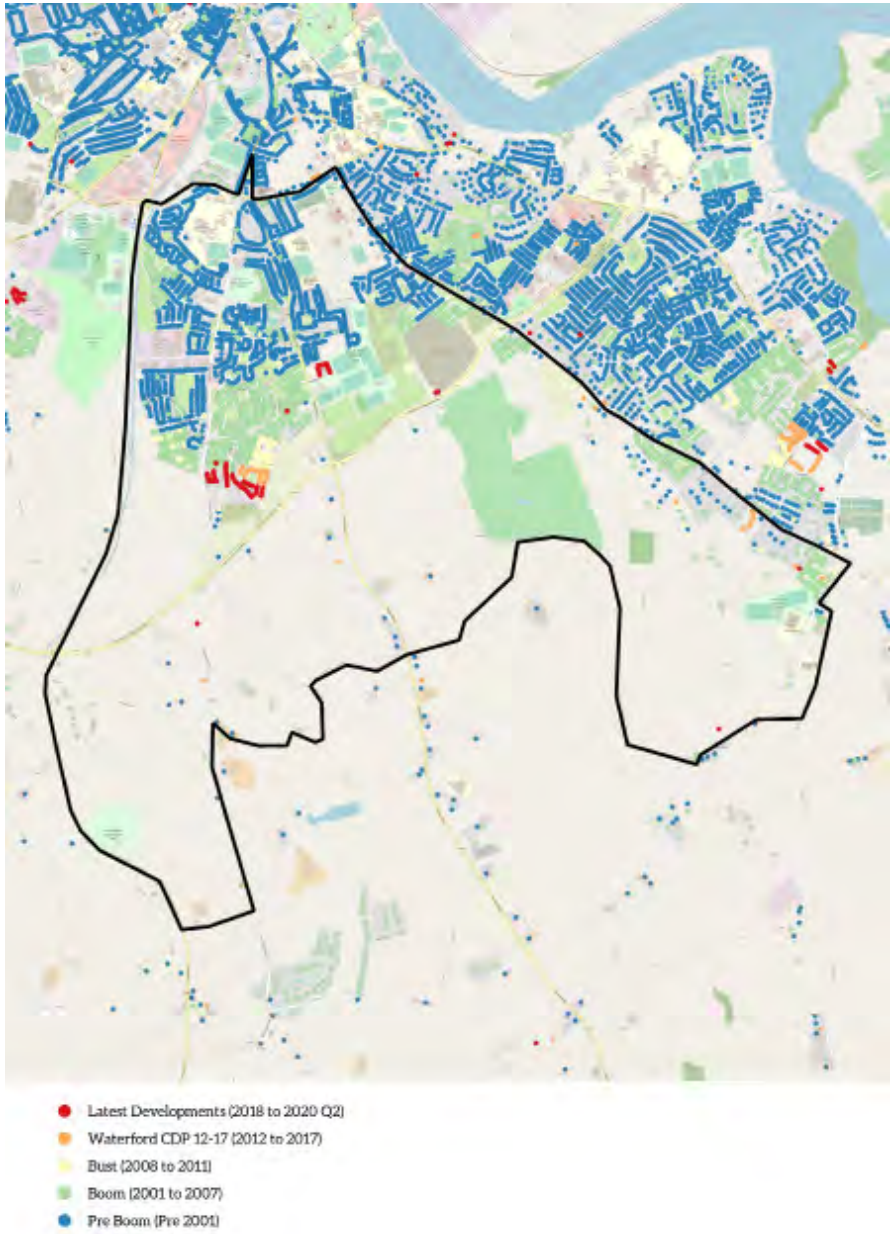
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	2

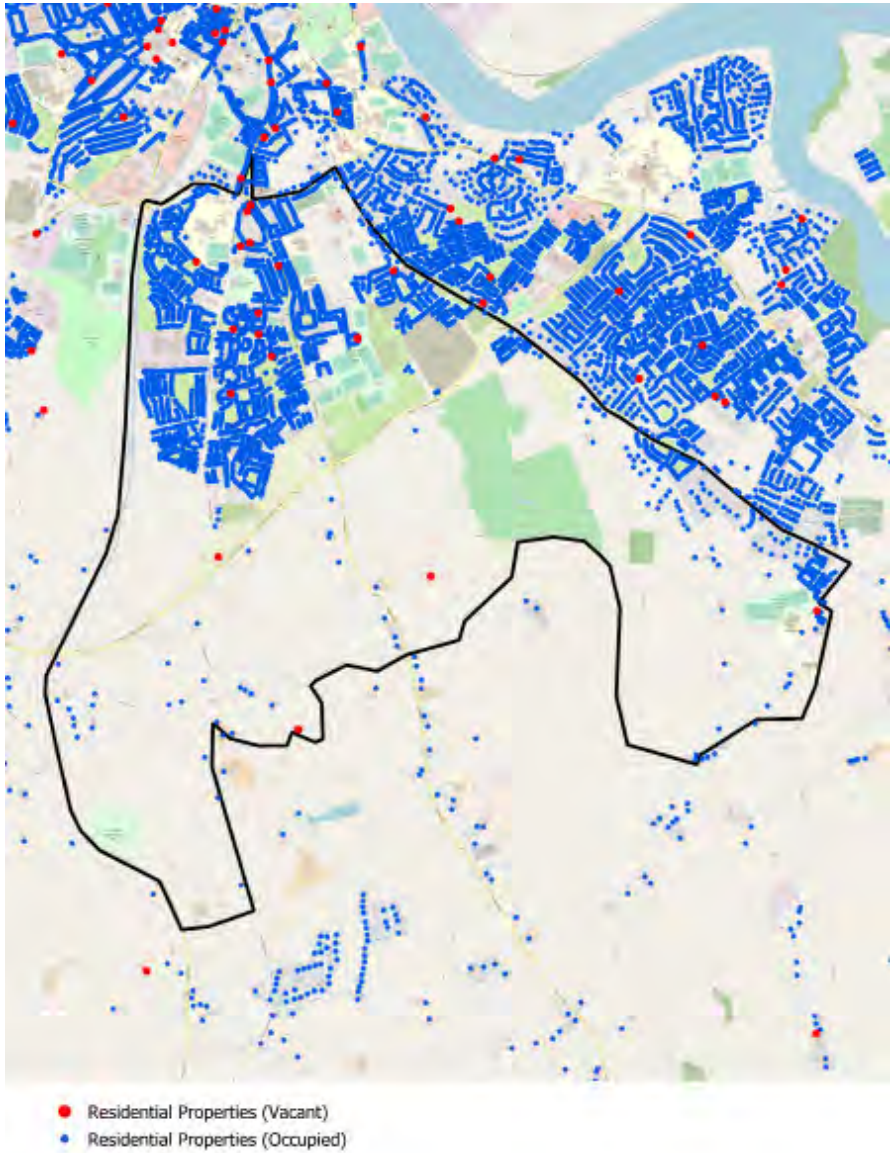
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 8, Sacred Heart Neighbourhood

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



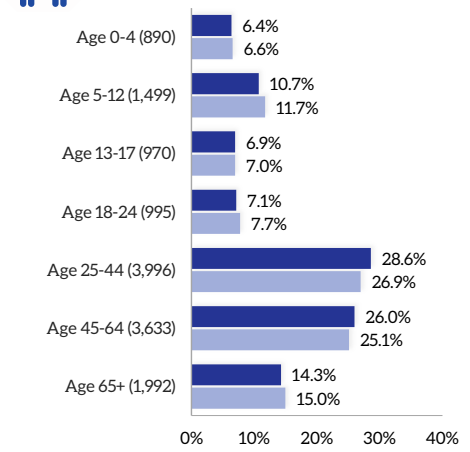
Sub-Area 9, Eastern Suburbs, Dunmore Road

Key socio-economic overview, 2016

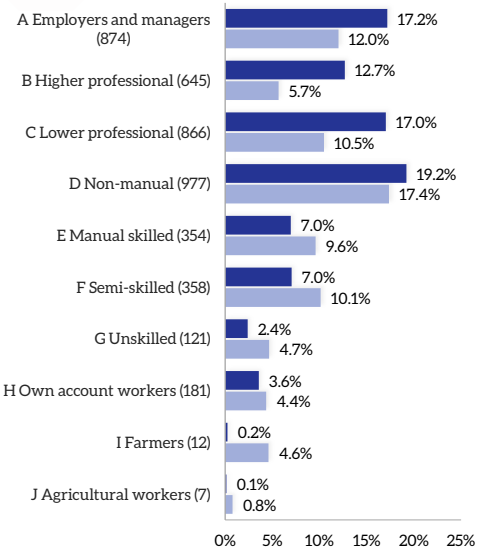
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



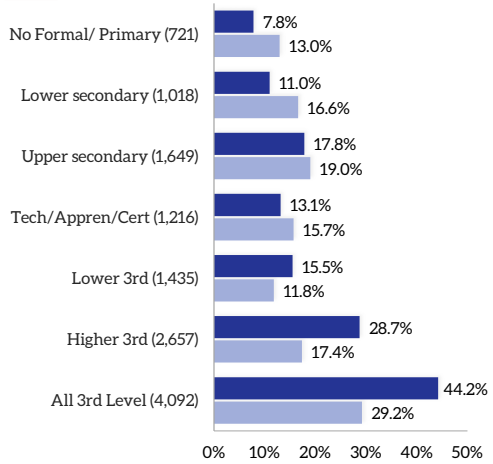
Socio-Economic Group



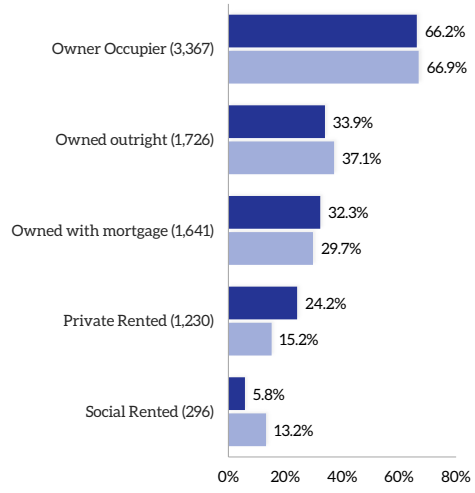
Total Population

Total	% Waterford Total
13,975	12.0%

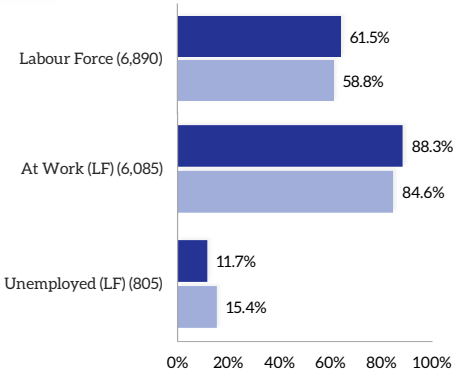
Education Attainment



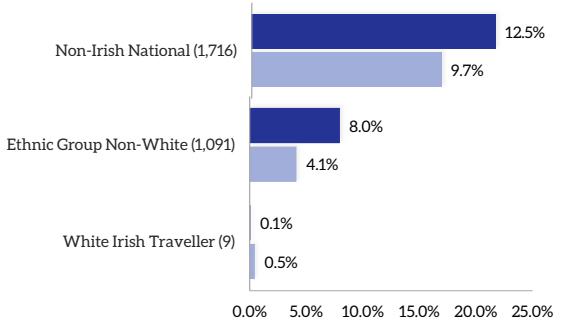
Housing Tenure



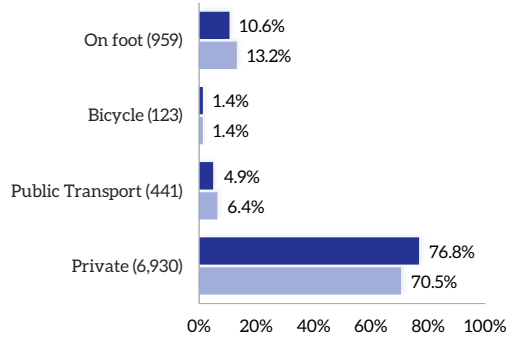
Labour Force



Nationality & Ethnicity

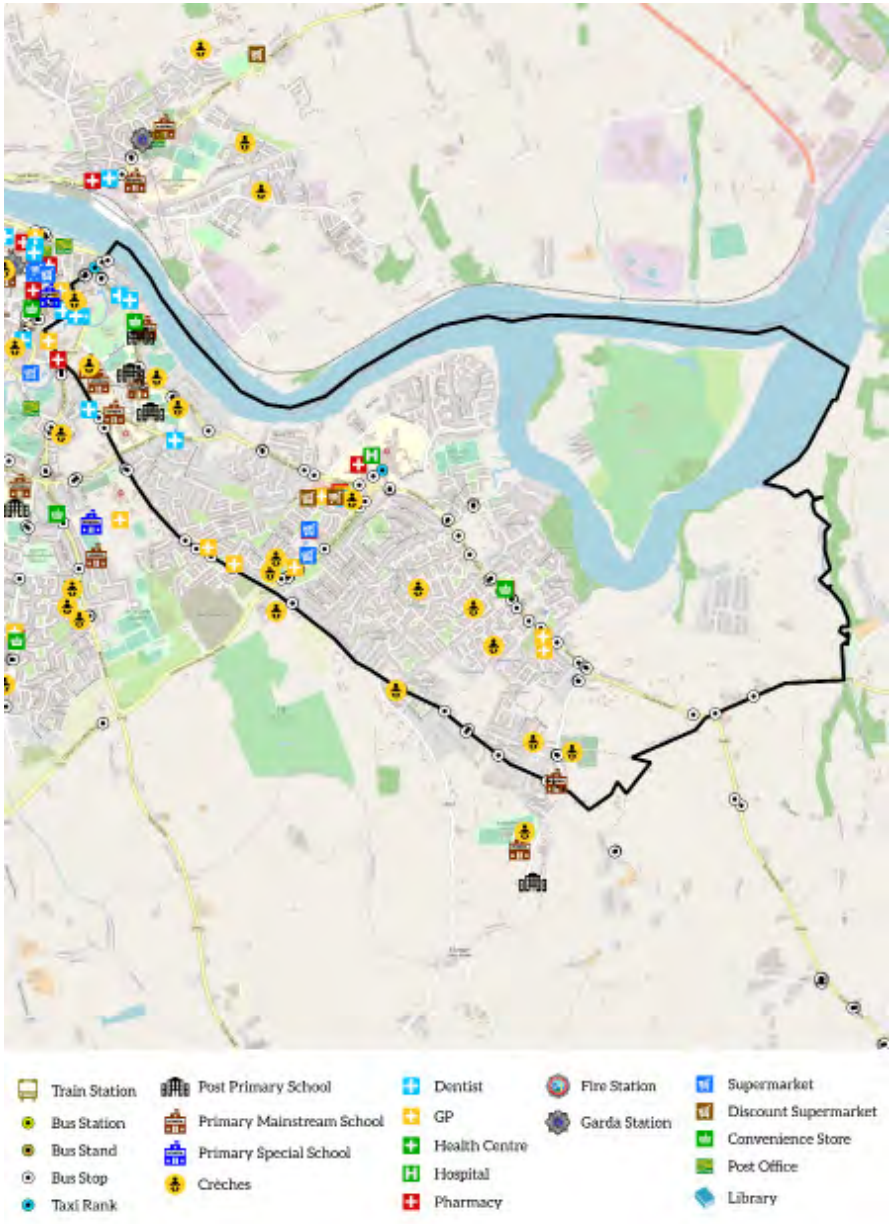


Mode of Travel



Sub-Area 9, Eastern Suburbs, Dunmore Road

Sub-Area 9, Facilities



Education

Crèche	Primary School	Secondary School
13	6	3

Health

GP	Health Centre	Pharmacy	Dentist
10	0	7	9

Travel

Bus Stops	Rail Station
77	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	1	1

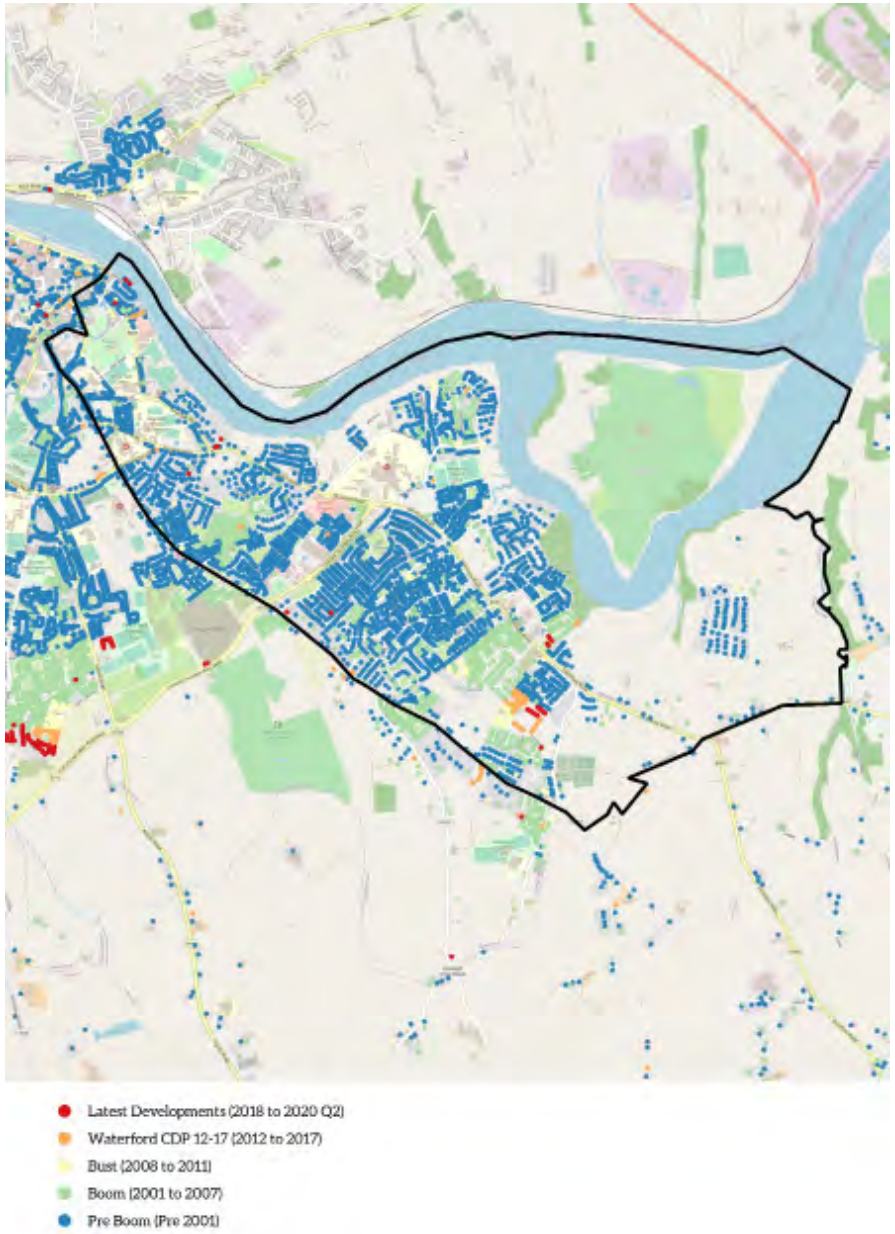
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
2	2	2

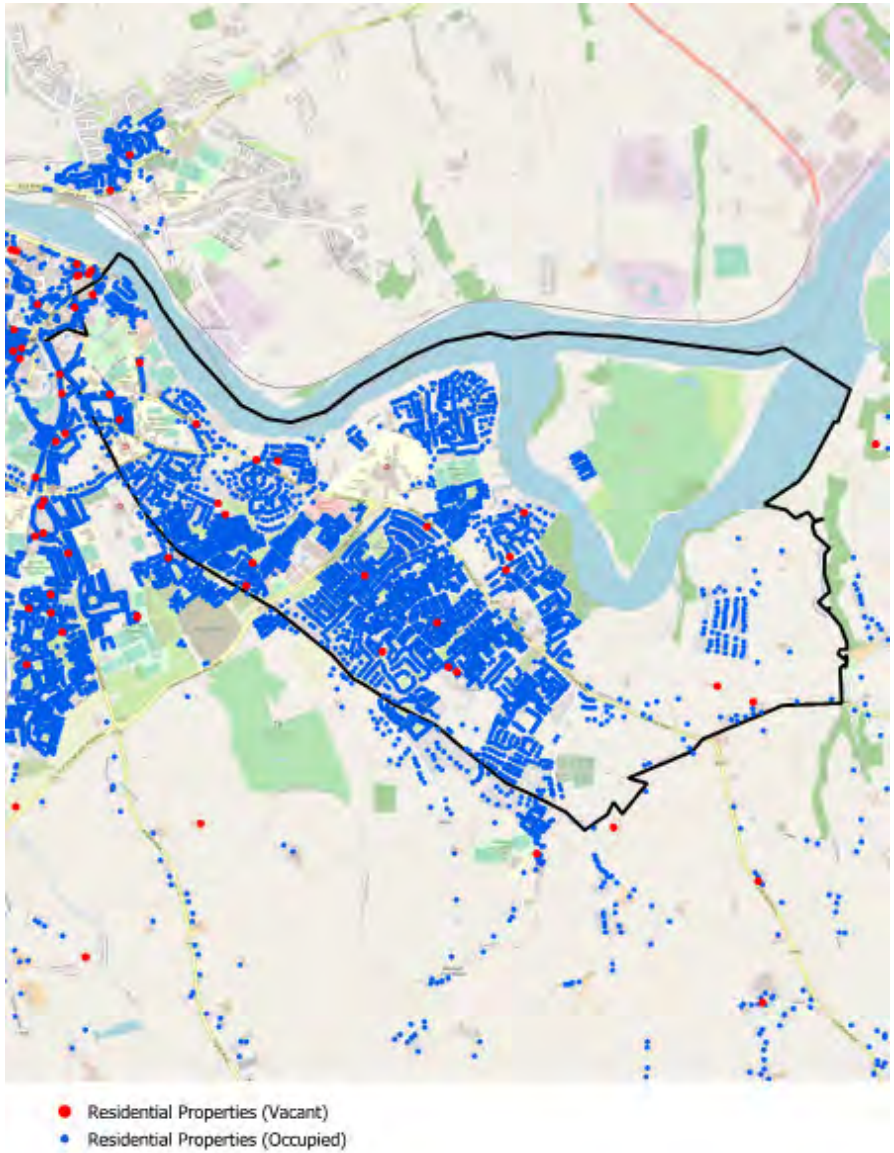
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 9, Eastern Suburbs, Dunmore Road

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



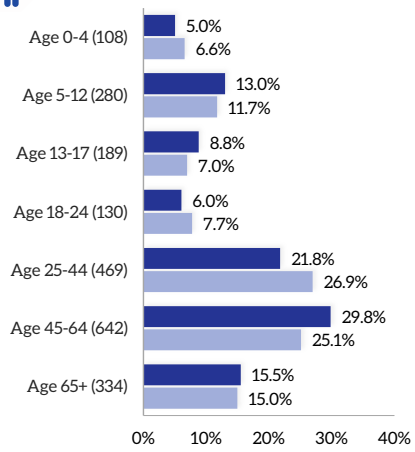
Sub-Area 10, Faithlegg

Key socio-economic overview, 2016

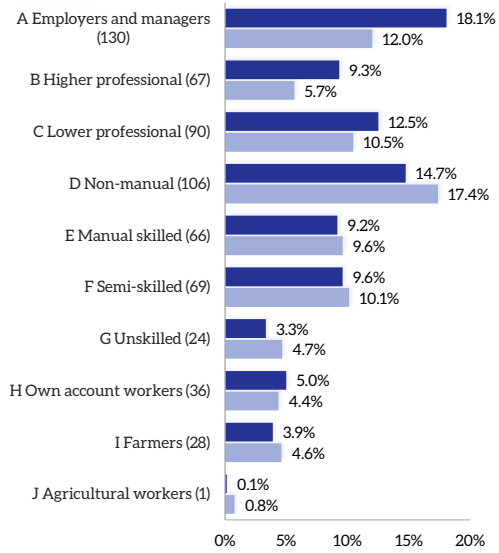
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



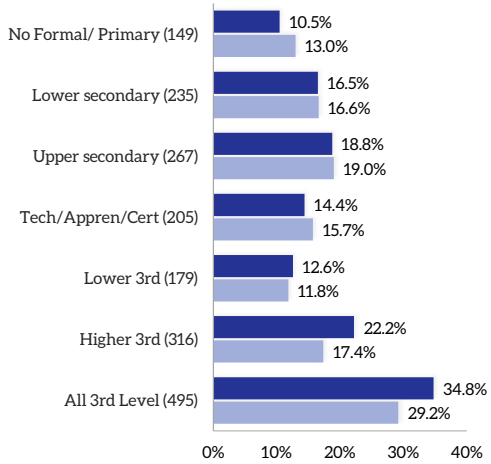
Socio-Economic Group



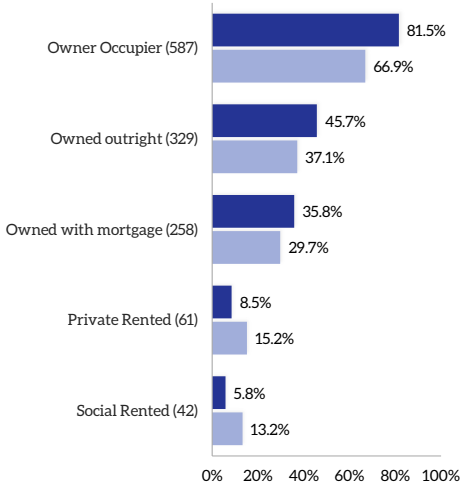
Total Population

Total	% Waterford Total
2,152	1.9%

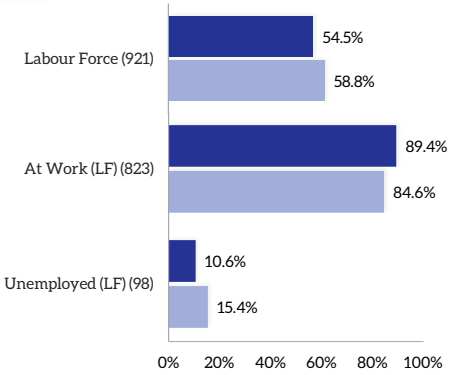
Education Attainment



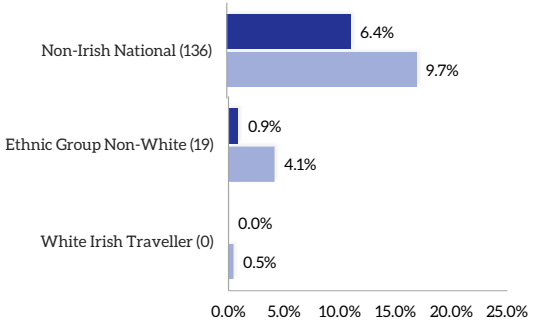
Housing Tenure



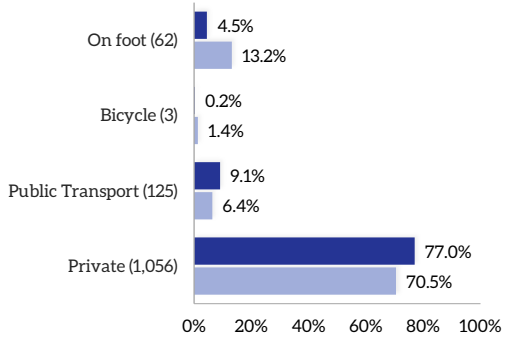
Labour Force



Nationality & Ethnicity

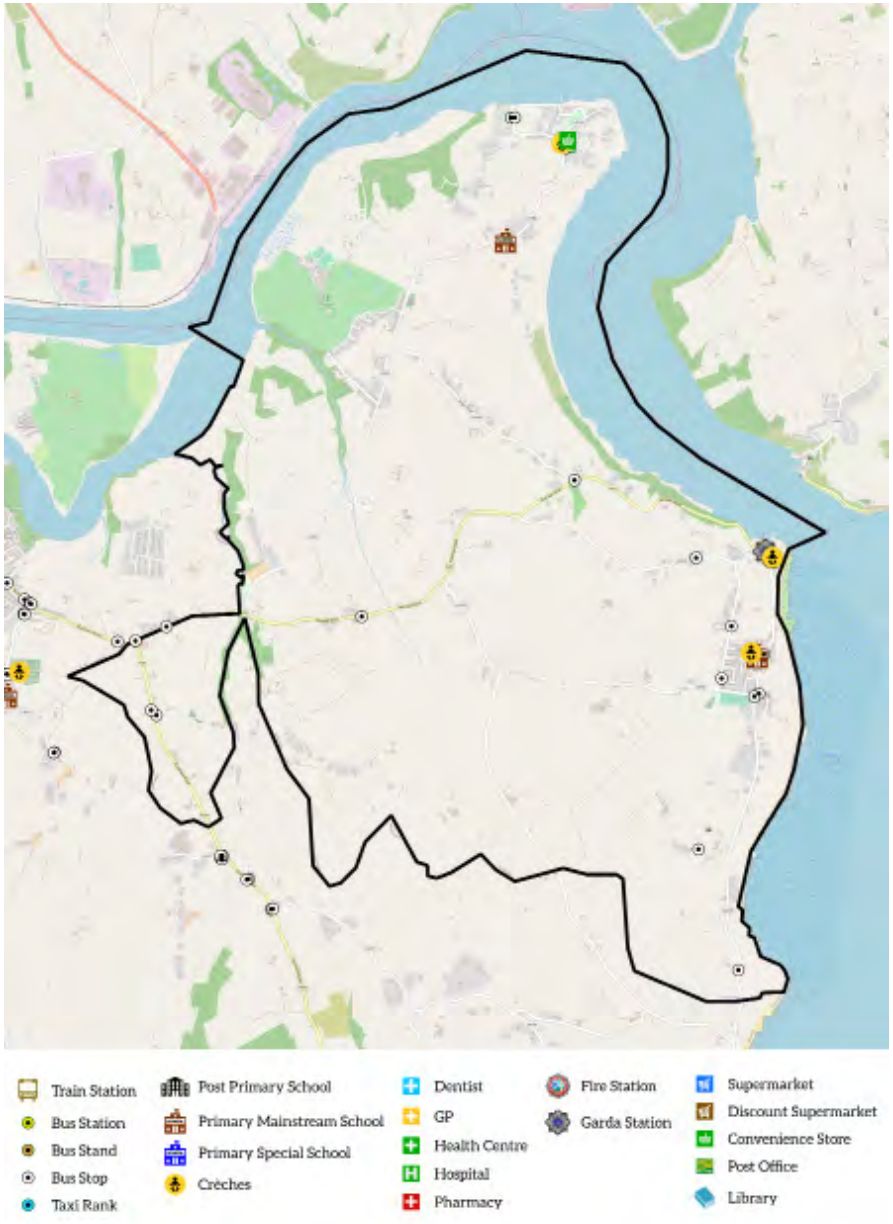


Mode of Travel



Sub-Area 10, Faithlegg

Sub-Area 10, Facilities



Education

Crèche	Primary School	Secondary School
3	2	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	0	0

Travel

Bus Stops	Rail Station
23	0

Services

Fire Station	Garda Station	Post Office	Library
0	1	1	0

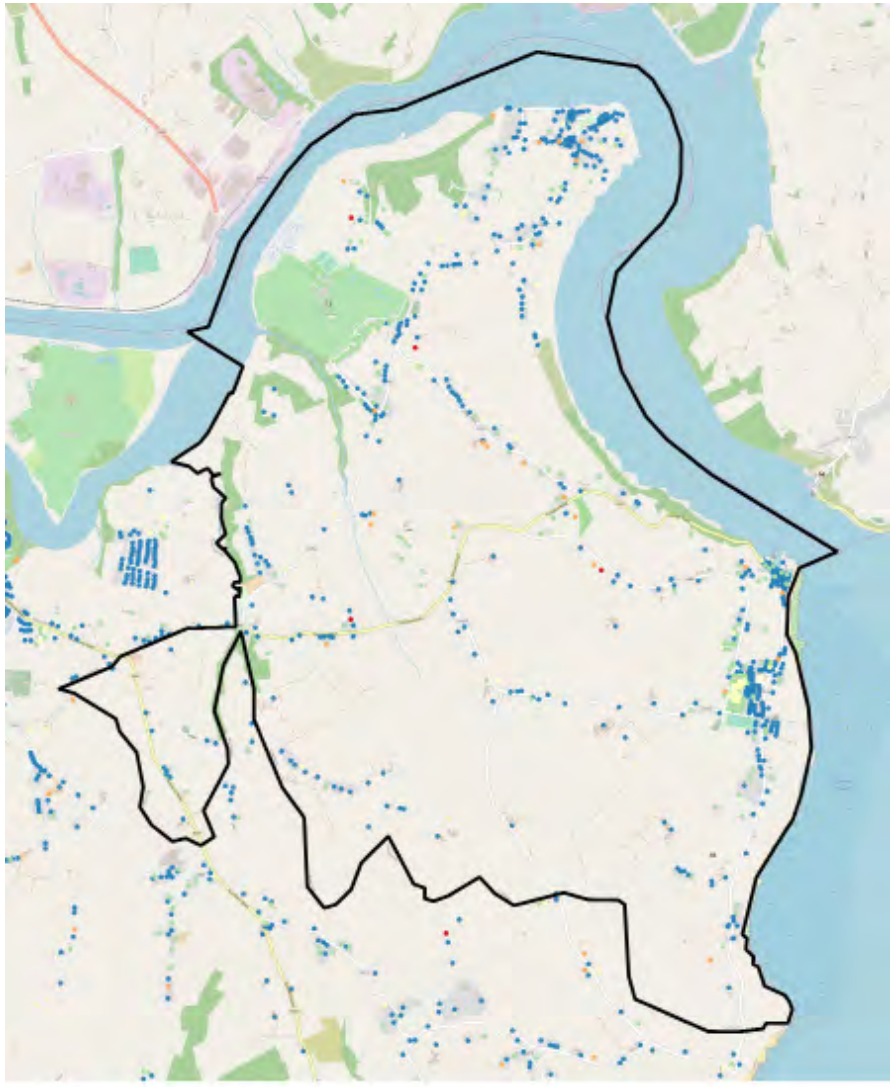
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	1

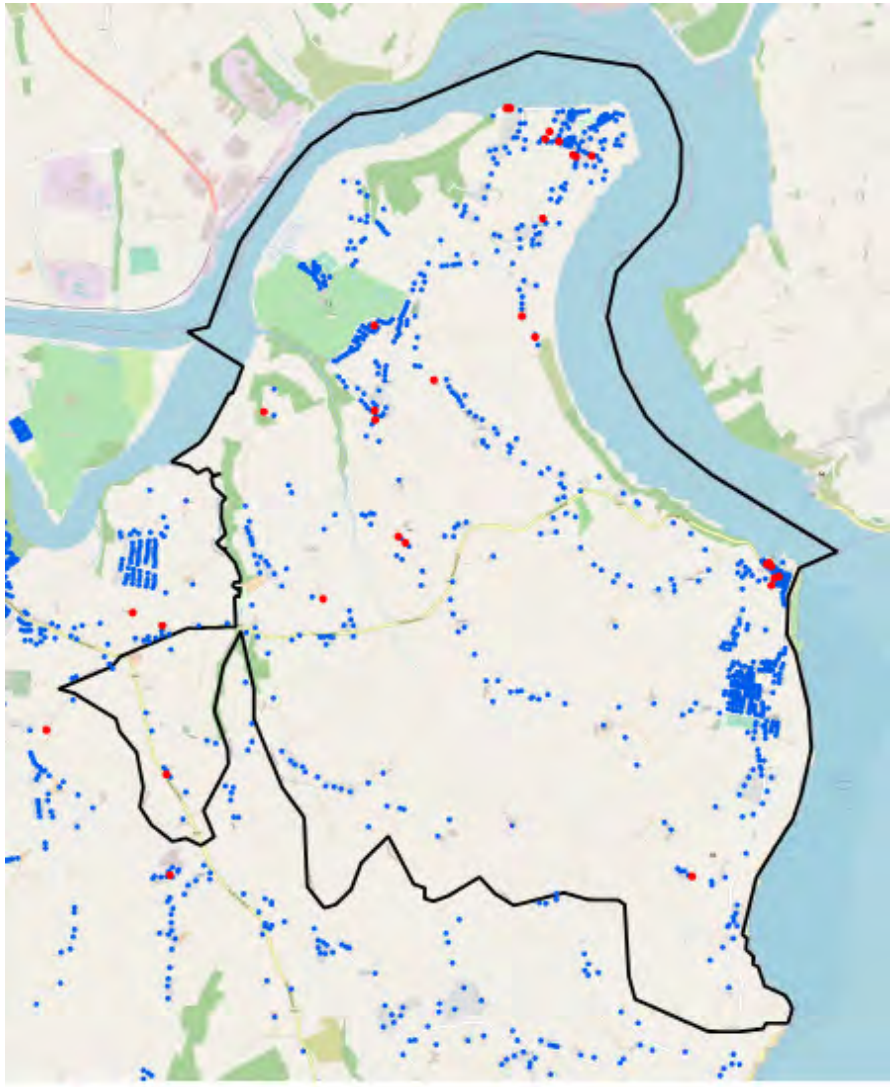
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 10, Faithlegg

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



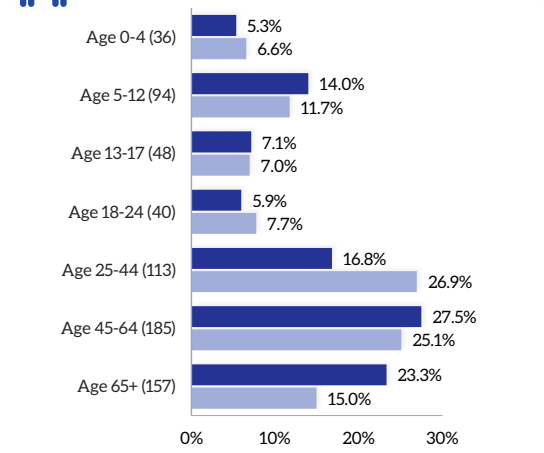
Sub-Area 11, Southern Rural Hinterland

Key socio-economic overview, 2016

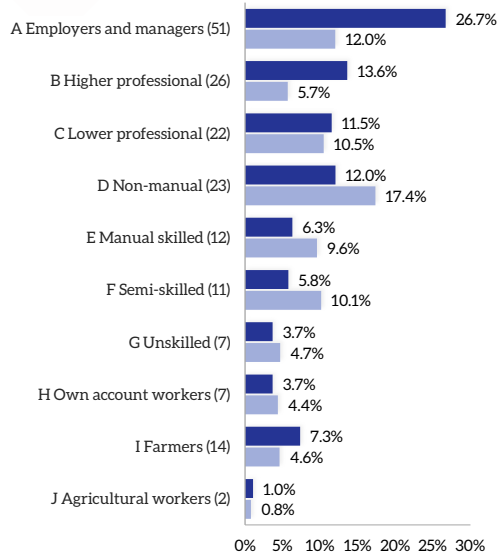
* Data sourced from CSO Census

Sub-Area Waterford County

Population Age



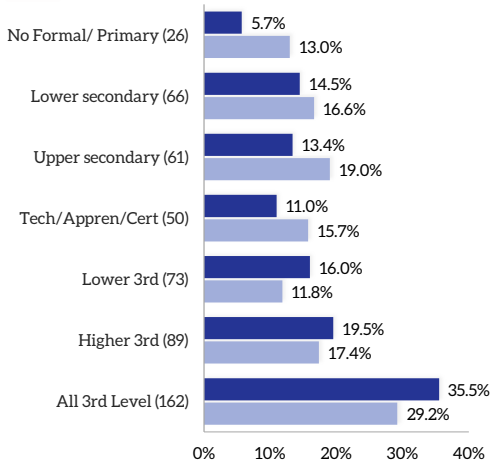
Socio-Economic Group



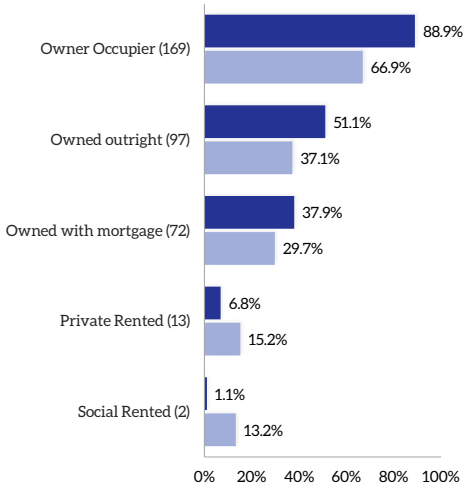
Total Population

Total	% Waterford Total
673	0.6%

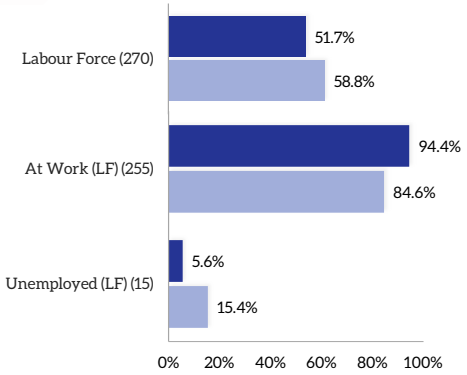
Education Attainment



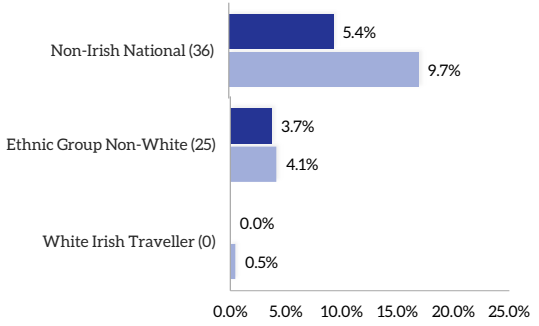
Housing Tenure



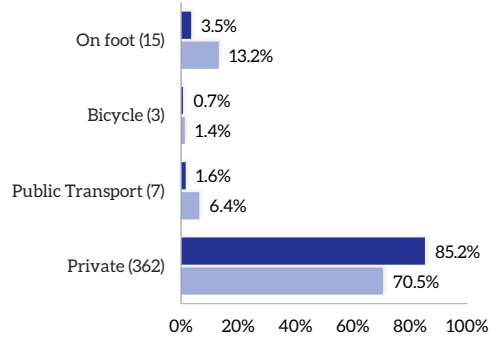
Labour Force



Nationality & Ethnicity

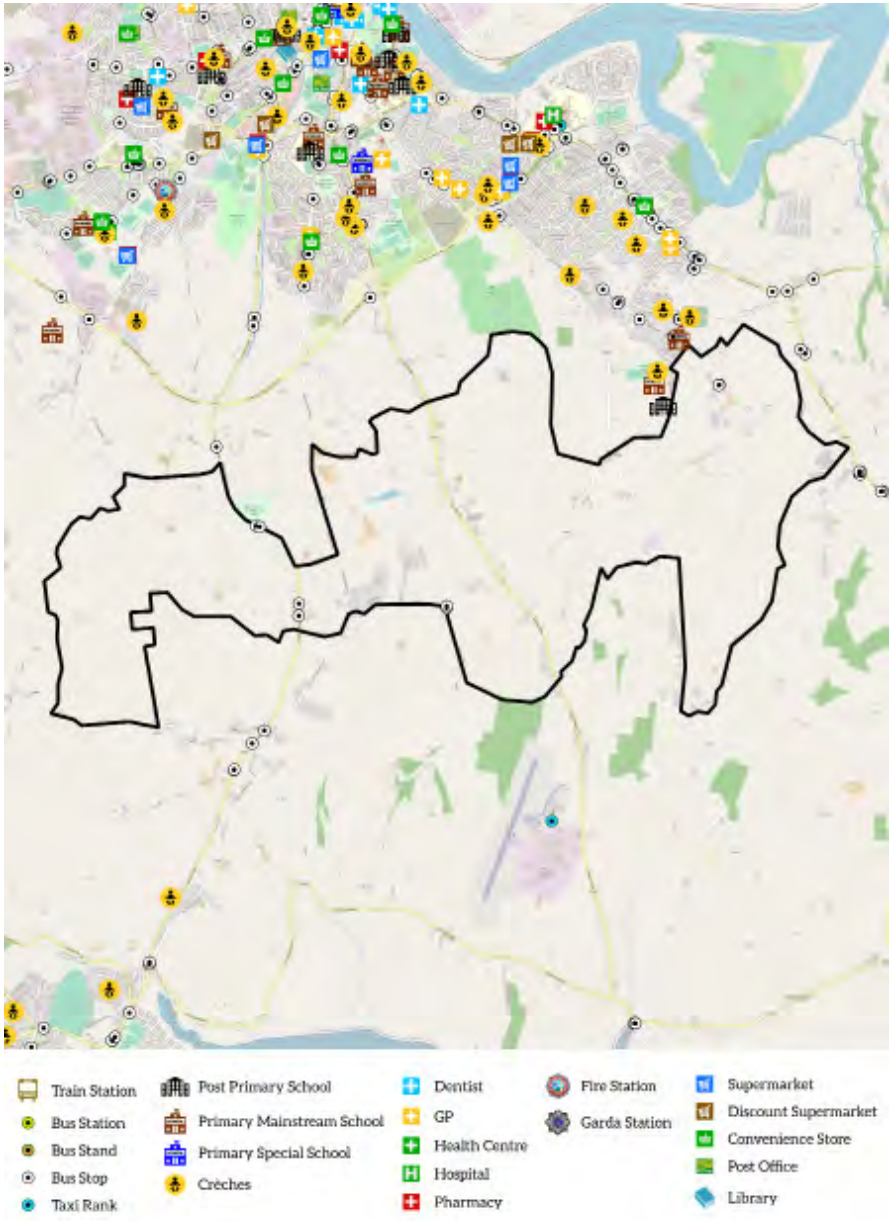


Mode of Travel



Sub-Area 11, Southern Rural Hinterland

Sub-Area 11, Facilities



Education

Crèche	Primary School	Secondary School
0	0	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	0	0

Travel

Bus Stops	Rail Station
9	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	0	0

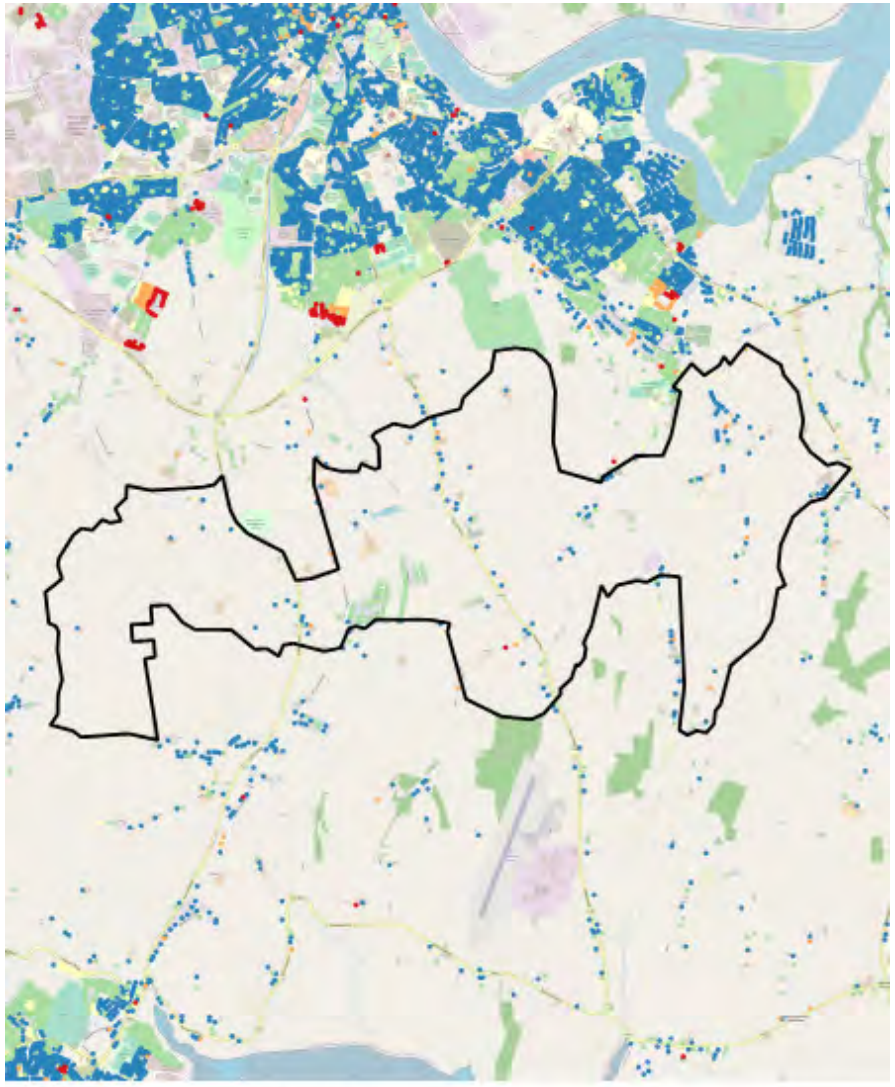
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	0

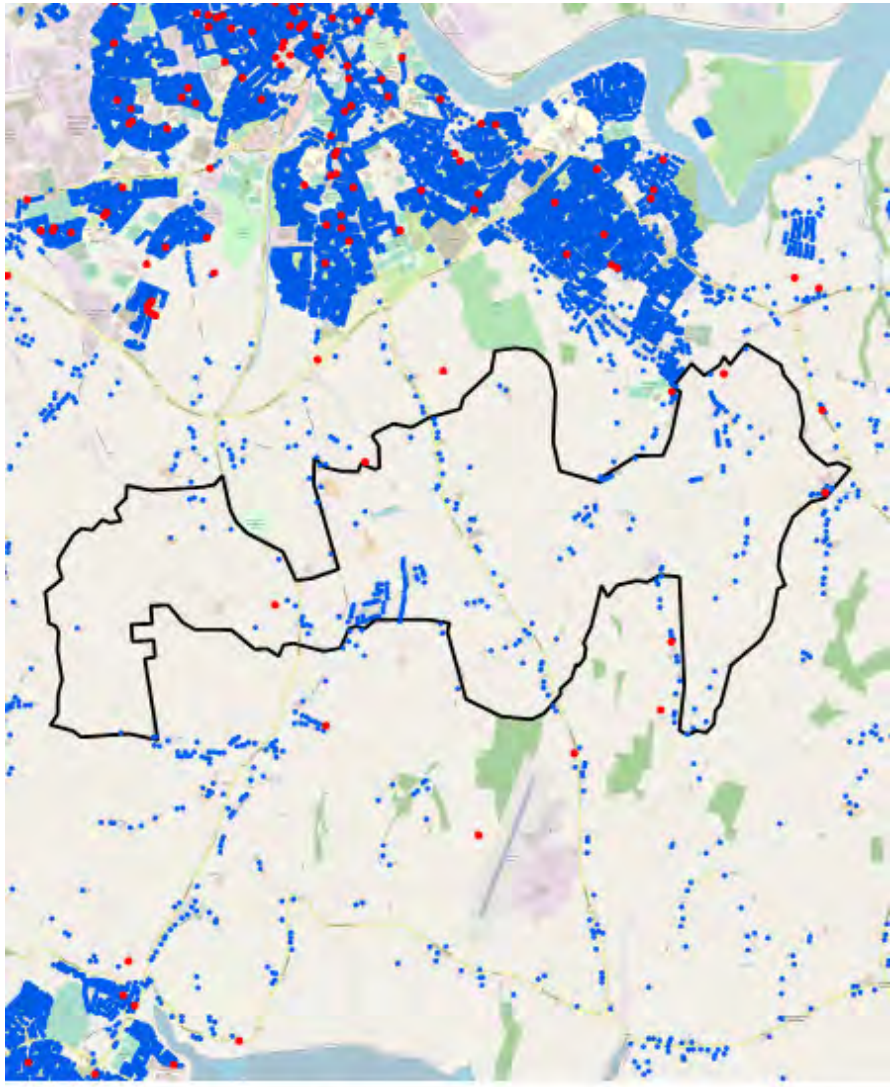
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 11, Southern Rural Hinterland

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



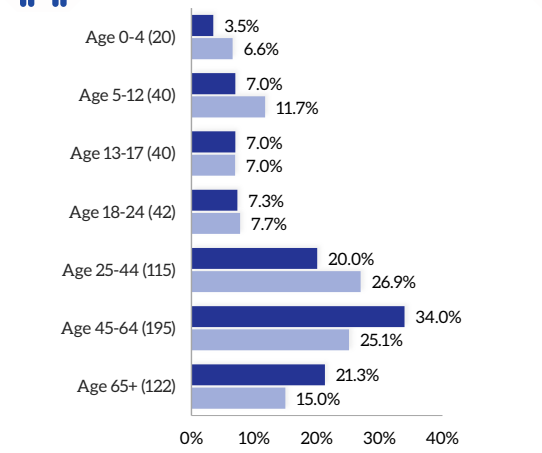
Sub-Area 12, Western Rural Hinterland

Key socio-economic overview, 2016

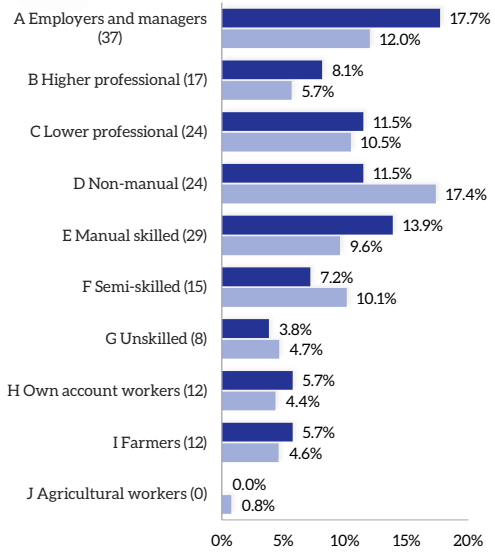
* Data sourced from CSO Census

Sub-Area | Waterford County

Population Age



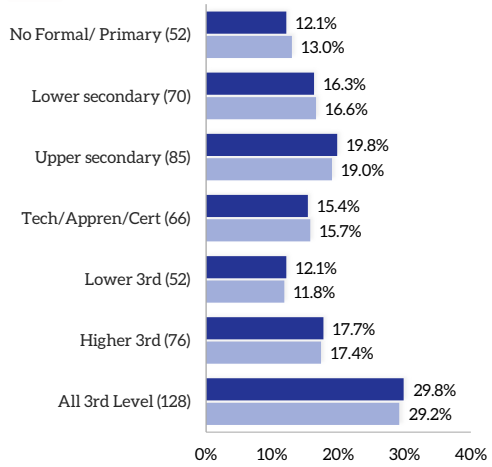
Socio-Economic Group



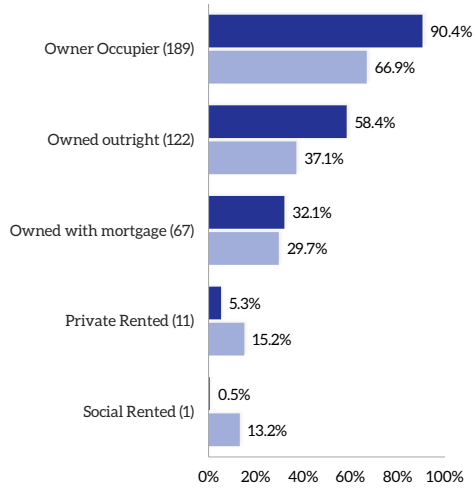
Total Population

Total	% Waterford Total
574	0.5%

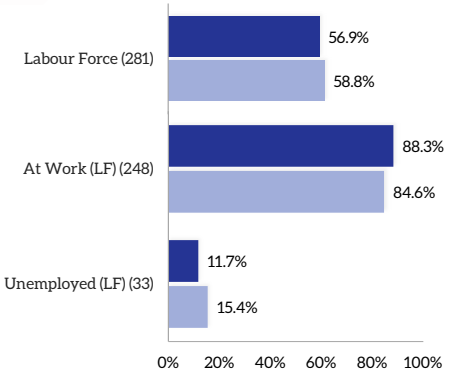
Education Attainment



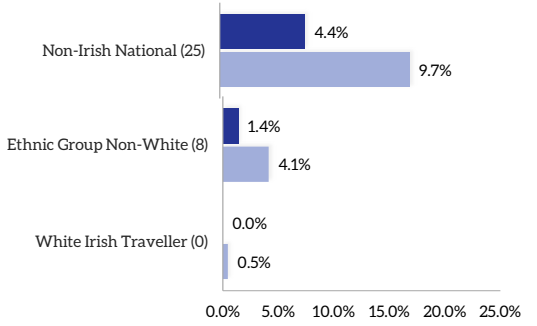
Housing Tenure



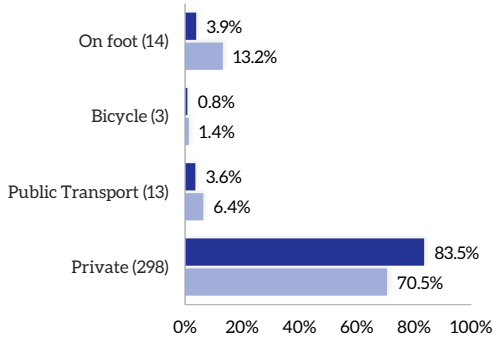
Labour Force



Nationality & Ethnicity

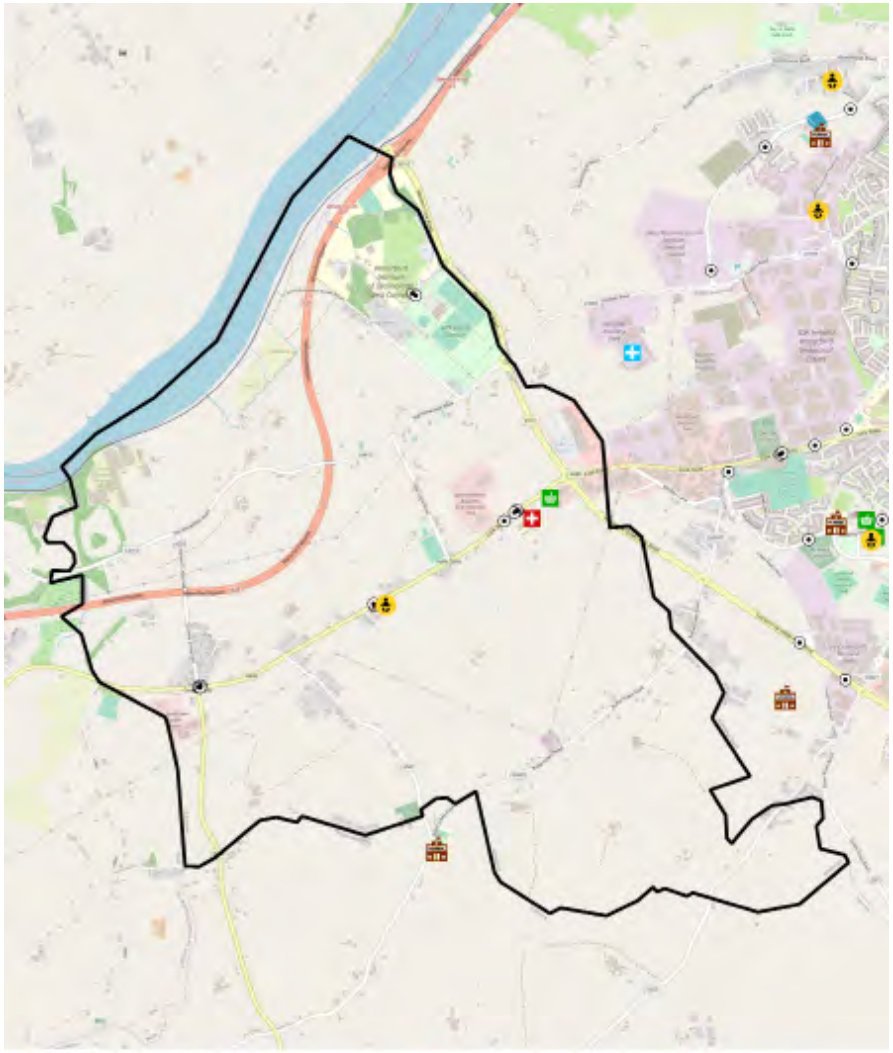


Mode of Travel



Sub-Area 12, Western Rural Hinterland

Sub-Area 12, Facilities



Education

Crèche	Primary School	Secondary School
1	0	0

Health

GP	Health Centre	Pharmacy	Dentist
0	0	1	0

Travel

Bus Stops	Rail Station
12	0

Services

Fire Station	Garda Station	Post Office	Library
0	0	0	0

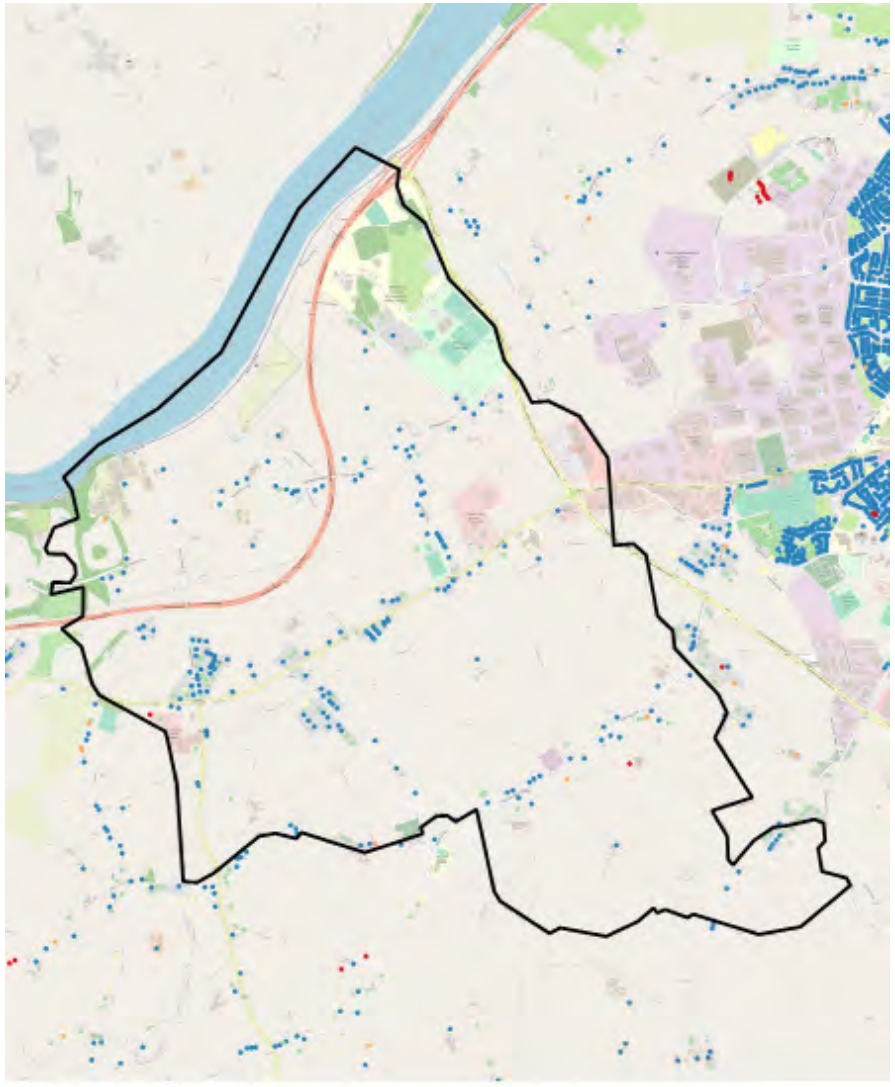
Retail*

Supermarket	Discount (Aldi/Lidl)	Convenience
0	0	1

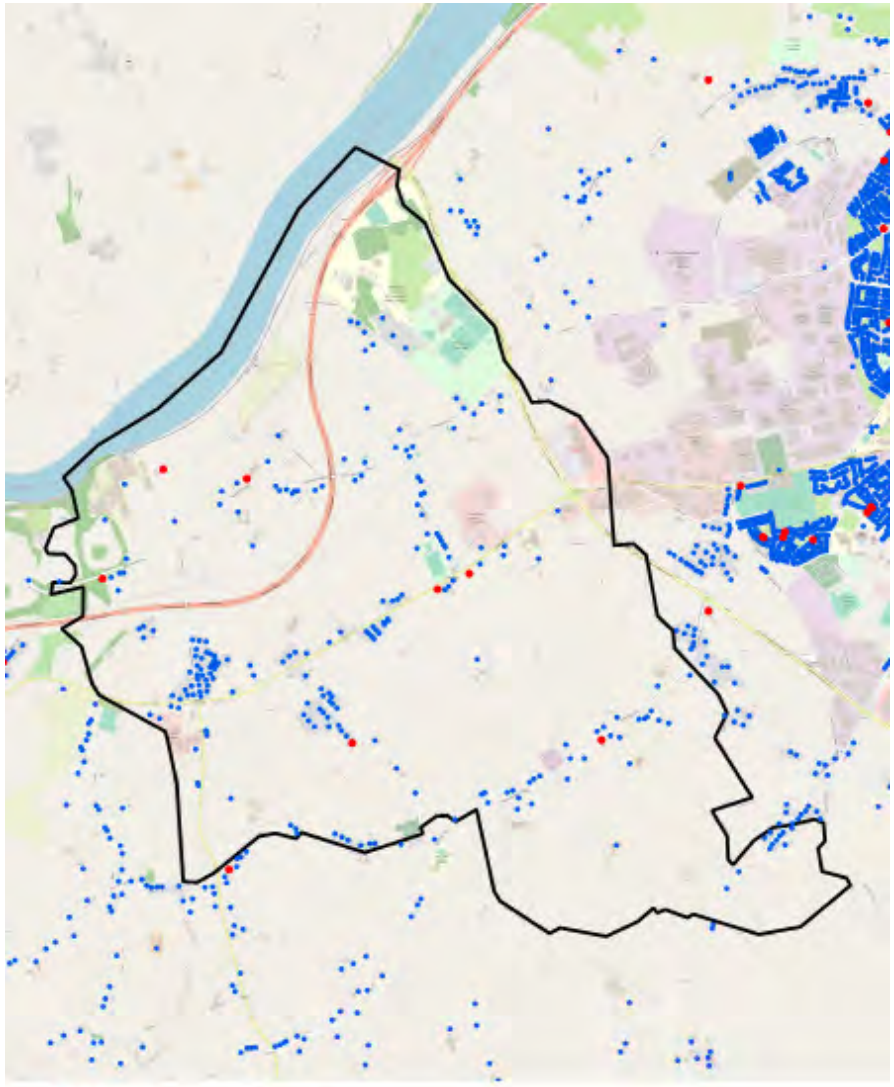
*__Supermarket:__ Dunnes, Super Valu, Tesco
__Discount:__ Aldi, Lidl
__Convenience:__ Centra, Spar/Eurospar, Mace, Londis

Sub-Area 12, Western Rural Hinterland

Residential Housing Developments Timeline



Housing Vacancy (GeoDirectory Q2 2020)



Appendix 19a

SEA Environmental Report Non-Technical Summary

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

SEA Environmental Report

Appendix IV – Non-Technical Summary

FOR THE

Waterford City and County Development Plan 2022-2028

for: **Waterford City and County Council**

City Hall

The Mall

Waterford City

by: **CAAS Ltd.**

1st Floor

24-26 Ormond Quay Upper

Dublin 7

July 2022

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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for the Waterford City and County Development Plan 2022-2028. The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Plan. The Environmental Report has been prepared as part of a Strategic Environmental Assessment (SEA) process for the Plan.

What is SEA?

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a proposed plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic, social and other considerations.

Why is SEA needed? The Benefits

The SEA has been carried out in order to comply with the provisions of the European SEA Directive and in order to enable sustainable development and environmental protection and management. SEA is the planning authority's and the public's guide to what are generally the best areas for development in the City and County.

SEA enables the planning authority to direct development towards robust, well-serviced and connected areas in the City and County – thereby facilitating the general avoidance of incompatible areas in the most sensitive, least well-serviced and least well-connected areas. Compact development can be accompanied by placemaking initiatives to enable the City and the County's towns and villages to become more desirable places to live – so that they maintain and improve services to existing and future communities.

SEA enables requirements relating to environmental protection and management to be integrated into the Plan so that compatible sustainable development in the City and County's sensitive areas is also facilitated.

SEA provides greater to the public and to developers. Plans are more likely to be adopted without delays or challenges and planning applications are more likely to be granted permission. Environmental mitigation is more likely to cost less.

An overlay of environmental sensitivities in Waterford City and County is shown on Figure 1.1.

The overlay mapping shows that environmental sensitivities are not evenly distributed throughout the City and County. Much of the City and County is identified as having low to moderate levels of sensitivity.

The most sensitive areas include:

- Upland and foothill areas of the County, including the Comeragh Mountains, on account of European Site ecological designations, archaeological heritage and landscape sensitives and areas of extreme and high groundwater vulnerability;
- Parts of the coastline and adjacent coastal areas, including Waterford Estuary, Tramore dunes and coast, the mid-Waterford Coast, Dungarvan Harbour, Helvic Head to Ballyquinn, Ardmore Head and the Blackwater Estuary, on account of European Site and proposed Natural Heritage Area and UNESCO Global Geopark designations, WFD RPA designations, areas of extreme groundwater vulnerability and coastal flood risk;
- Certain locations and areas within the existing built-up footprint of the County, including Waterford City, on account of cultural heritage designations, including entries to the Record of Monuments and Places, Entries to the Record of Protected Structures and Architectural Conservation Areas; and
- Certain areas that are adjacent to streams and rivers, on account of flood risk, including those areas along the Rivers Suir and Blackwater and their tributaries.

How does the SEA work?

All of the main environmental issues in the area were assembled and considered by the team who prepared the Plan. This helped them to devise a Plan that contributes towards the protection and management of environmental sensitivities. It also helped to identify wherever potential conflicts between the Plan and the environment exist and enabled these conflicts to be mitigated.

The SEA was scoped in consultation with designated environmental authorities.

What is included in the Environmental Report that accompanies the Plan?

- A description of the environment and the key environmental issues;
- A description and assessment of alternatives for the Plan;
- An assessment of the provisions of the Plan; and,
- Mitigation measures, which will avoid/reduce the environmental effects of implementing the Plan and will contribute towards compliance with important environmental protection legislation.

Difficulties Encountered during the SEA process

No significant difficulties have been encountered during the undertaking of the assessment. There was limited water services information available for some settlements within the City and County however objectives requiring the provision of appropriate levels of water services alongside new development have been integrated into the Plan.

There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term “unassigned status” applies in respect of these waterbodies. The SEA ensured that the Plan contains measures that will contribute towards the maintenance and improvement of status of all water bodies within the zone of influence.

There is uncertainty about water services capacity and demand at certain plants in the County. The SEA ensured that the Plan contains measures that will help to ensure that new development is served by adequate and appropriate water services.

What happens at the end of the process?

An SEA Statement is prepared which summarises, inter alia, how environmental considerations have been integrated into the Plan.

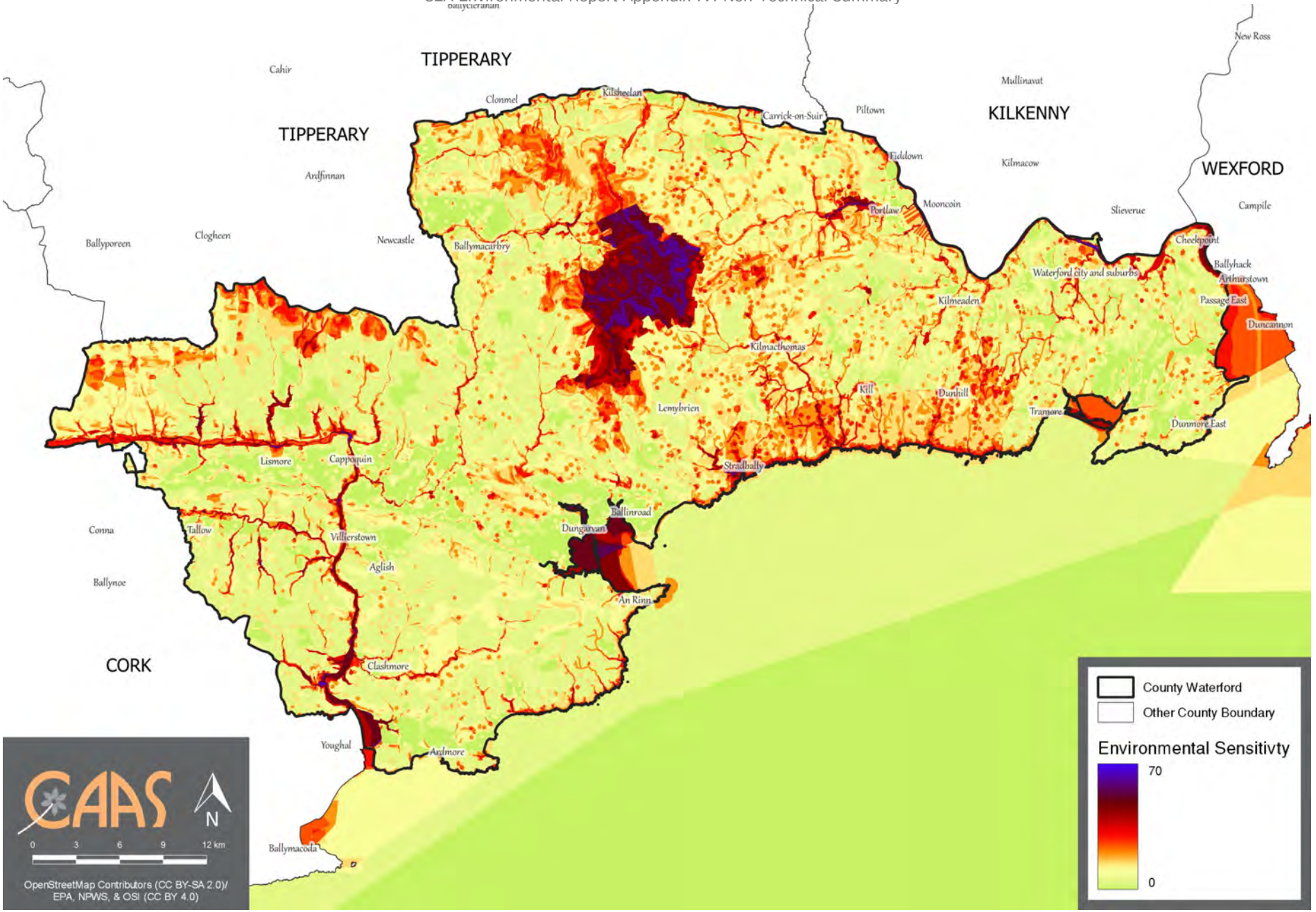

Figure 1.1 Environmental Sensitivities that the Plan directs incompatible development away from

Section 2 The Plan

2.1 Introduction and Content

The Waterford City and County Development Plan is a land use plan and overall strategy for the proper planning and sustainable development of Waterford City and County over the six-year period 2022-2028. The Development Plan comprises a series of separate, but interrelated elements. The Plan is structured as follows:

- Volume 1: Written Statement consisting of the following:
  - Part 1: Vision and Strategy
  - Part 2: Waterford City
  - Part 3: Waterford City & County
- Volume 2: Development Management Standards
- Volume 3: Supporting Appendices (including: Retail Strategy: Housing Need and Demand Assessment; Landscape and Seascape Characterisation Assessment; RPS; ACAs; this SEA Environmental Report; and Natura Impact Report.

2.2 Plan Vision and Core Strategy Strategic Aims

The Vision of the Plan is as follows:

> "By 2028, Waterford City and County will have continued to grow and will be evolving to become an even more attractive, prosperous, resilient, and sustainable place, anchored by Waterford City and Metropolitan area as the Regional Capital, a University and Learning City, and an economic driver for the region. It will be the best city and county in which to live, visit and do business.
>
> We will be recognised as the Regional Capital and for:
> - Our enterprise and inventiveness in the knowledge economy and high-value markets – with a particular focus on biopharmaceuticals, technological innovation, tourism, food and drink, fishing, and the primary industries;
> - The development and growth of our educational capital through our university and its synergies with the broader economy; and,
> - Our unique built, historic, cultural and natural environment, which will be protected and, where appropriate, enhanced as a key asset in underpinning a high quality of health/wellbeing, life and place.
>
> The Council will have taken a proactive approach towards development that promotes and facilitates appropriate and sustainable development, that nonetheless:
> - Ensures the sustainable use of natural resources;
> - Enables us to live within the area's environmental capacity;
> - Enables and enhances our resilience to climate change; and,
> - Creates a more open, diverse and inclusive society."

The Core Strategy Strategic Aims of the Plan are as follows:

1. Based on the population/employment targets and policy objectives of the NPF, RSES & MASP, provide a local policy framework to, support development where it is consistent with the principles of sustainable development, and which is applied through planning decisions which are clear, consistent, robust and risk adverse.
2. Identify investment priorities to deliver and support the settlement strategy and hierarchy, founded on the principle of infrastructure led development.
3. Counteract imbalances in housing type, tenure and location both within settlements, between settlements and across broader rural areas in order to meet the needs of the people of Waterford, mitigating current residential leakage and unsustainable travel patterns.
4. To require, where appropriate, all plans and projects to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. Protect the integrity all Natura 2000 sites, (p) HNA's and locally important Biodiversity Sites in Waterford.
5. To ensure the policies and objectives of the Development Plan demonstrate consistency with the national and regional policy objectives set out in the NPF, RSES and MASP.
6. To implement a tiered and infrastructure led approach to the development of new residential land and engage in active land management to bring forward opportunities for redevelopment where feasible.
7. Develop key infrastructure required to deliver the concentric city model for Waterford City, consistent with the NPF, RSES and MASP and founded on the assimilation of PLUTS and WMATS policy objectives.
8. Implement the Waterford City and County Council Climate Adaptation Strategy 2019 (as amended) and promote a climate resilient pattern of development and land uses which assists in achieving national climate change mitigation and adaption targets.
9. To protect and strengthen the retail primacy of Waterford City within the Southern Region.
10. To protect and enhance the vibrancy and vitality of urban and rural centres and their mixed use functions/capacity as community hubs.

11. To enhance the sense of place throughout settlements in Waterford and deliver 10 minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning.
12. To protect existing employment and promote new employment areas at strategic locations and in district and local services centres across Waterford County.
13. Acknowledge the vital importance of the tourism sector to economic development and continue to encourage and promote the sustainable development of a range of quality tourism facilities, attractions and accommodation types across Waterford.

2.3 Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval, the placing of the Draft Plan on public display and the adoption of the Plan, Waterford City and County Council undertook various works in order to inform the preparation of the Plan. The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the City and County. Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including: Economy, Tourism, Education and Retail; Transport and Mobility; Utilities Infrastructure, Energy and Communication; Housing and Sustainable Communities; Placemaking; Climate Action, Biodiversity and Environment; Landscape, Coast/ Marine and Blue Green Infrastructure; and Heritage.

2.4 Relationship with other relevant Plans and Programmes

It is acknowledged that many of the major issues affecting the City and County's development are contingent on national policy and government funding. The Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Plan must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents include plans and programmes such as those detailed in Appendix of the main SEA ER. These documents have been subject to their own environmental assessment processes, as relevant. The National Planning Framework (NPF) sets out Ireland's planning policy direction up to 2040. The NPF is to be implemented through Regional Spatial and Economic Strategies (RSESs) and lower tier Development Plans and Local Area Plans. The RSES for the Southern Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must be implemented through the City and County Development Plan. As required by the Planning and Development Act 2000, as amended, the County Development Plan is consistent with and conforms with national and regional policies, plans and programmes, including the NPF and the RSES for the Southern Region. The City and County Development Plan will, in turn, guide lower-level strategic actions, such as Local Area Plans that will be subject to their own lower-tier environmental assessments. In order to be realised, projects included in the City and County Development Plan (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

Section 3 The Environmental Baseline

3.1 Introduction

The summary of the environmental baseline of the City and County is described in this section. This baseline together with the Strategic Environmental Objectives, which are identified in Section 3.11, is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Plan and in order to determine appropriate monitoring measures.

3.2 Likely Evolution of the Environment in the Absence of the Plan

In the absence of a new Plan it is uncertain how permission for new development would be applied for and considered. The current City and County Plans have contributed towards environmental protection within Waterford City and County. If the current City and County Plans were to expire and not be replaced by a new Plan, this would result in a deterioration of the City and County's planning and environmental protection framework. As a result, there would be an increased likelihood in the extent, magnitude and frequency of adverse effects on all environmental components occurring, including:

- Arising from both construction and operation of development and associated infrastructure:
    - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;
    - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and
    - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.
- Potential interactions if effects arising from environmental vectors.
- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.
- Potential for riverbank and coastal erosion.
- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.
- Increase in flood risk and associated effects associated with flood events.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Increases in waste levels.
- Potential impacts upon public assets and infrastructure.
- Interactions between agriculture and soil, water, biodiversity and human health – including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.
- Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

3.3 Biodiversity and Flora and Fauna

The most ecologically sensitive and heavily designated and protected areas within County Waterford include upland areas (including peat bogs) and coastal areas (including intertidal flats, islands, sand and dunes). Coastal waters and various rivers and lakes provide habitats for sensitive species. Dispersed areas of marginal agricultural lands that may include ecological sensitivities occur throughout the County's lowlands and foothills.

A network of green spaces, including gardens, parks, graveyards, amenity walks, railway lines and patches of woodland and scrub, provide habitats and ecological connectivity within the County and beyond.

Designated sites within the City and County include Special Areas of Conservation[1] (SACs) and Special Protection Areas[2] (SPAs). These are mapped on Figure 3.1. There are 15 European sites (9 SACs and 6 SPAs) designated within or partially within Waterford City and County. Other ecological designations occur within and adjacent to the City and County and these are detailed in the main SEA Environmental Report.

CORINE[3] land cover mapping shows that the most dominant land cover type throughout the County is pastures. Concentrations of peat bogs occur mainly in the north-west and central parts of the County.

Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Categories for pressures and threats on Ireland's habitats and species identified by the report include: Agriculture; Forestry; Extraction of resources (minerals, peat, non-renewable energy resources); Energy production processes and related infrastructure development; Development and operation of transport systems; Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas; Extraction and cultivation of biological living resources (other than agriculture and forestry); and Climate change.

Ireland's Article 12 Birds Directive Reports and the 6th National Report under the Convention of Biological Diversity identify similar issues.

The Plan includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services. Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

[1] SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000.

[2] SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

[3] The CORINE (Coordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. Peatlands and wetlands are the second most widespread land cover type, covering almost one-fifth of the country. While forested areas cover about one-tenth of the country. Despite rapid development in the past two decades, Ireland's landscape is predominantly rural and agricultural.

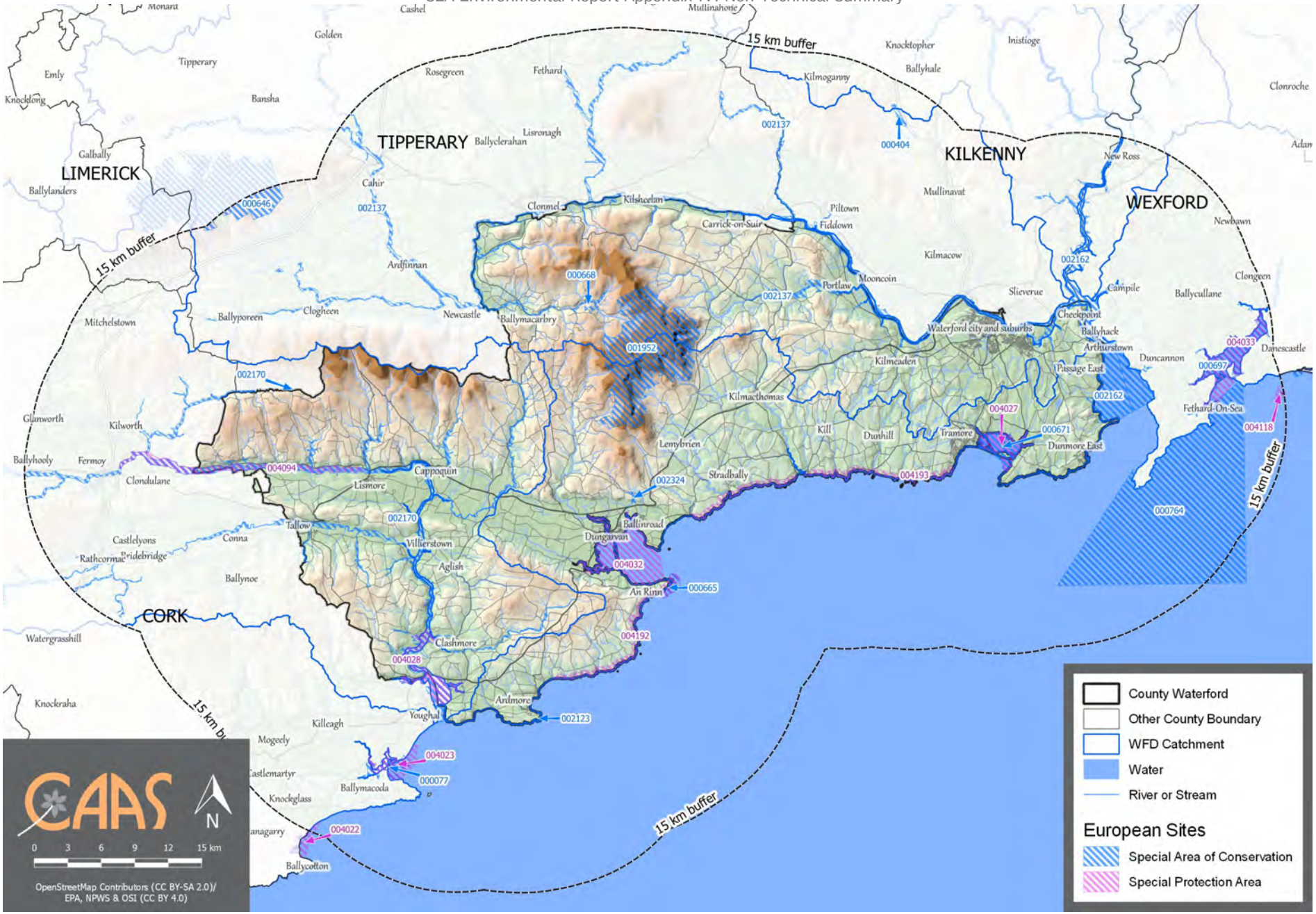

Figure 3.1 European sites within and within 15 km of the County

3.4 Population and Human Health

In the 2016 Census the total population of Waterford City and County was identified as being of 116,176 persons, an increase in total population in the County by c. 2% (c. 2,381 persons) since the previous census. The population growth targets for the County for 2028 and 2031 are 137,630 persons and 144,000 persons respectively.

In the 2016 Census the total population of Waterford City (within the total city area, including Waterford City, Suburbs and Rural) was identified as being 51,615 persons. Waterford Metropolitan Area is identified by Southern Regional Assembly Regional Spatial and Economic Strategy (RSES) as the principal urban centre of the South-East and a Regional City of Scale. The Waterford Metropolitan Area Strategic Plan (MASP) provides a high-level strategic framework for the sustainable development of the Waterford Metropolitan Area. Dungarvan is identified as a Key Town by the Southern RSES for its strategic location and diverse employment sectors.

The Plan designates a hierarchy of the County's settlements as follows:

- City - Metropolitan Area (Waterford City);
- Key Town (Dungarvan, including Ballinroad, Clonmel Environs)
- Large Urban Town (Tramore);
- Urban Town (Dunmore East, Portlaw and Lismore);
- Large Urban Towns (Ardmore, Cappoquin, Gaeltacht na nDéise (including Old Parish), Kilmacthomas, Passage East/Crooke, Stradbally, Tallow);
- Rural Villages (Aglish, Ballyduff Upper, Ballymacarbry, Bonmahon/Knockmahon, Cheekpoint, Clashmore, Conea Power, Dunhill, Kill, Kilmeaden/Ballyduff, Lemybrien/Kilrossanty, Rathgormuck, Touraneena, Villierstown); and
- Rural Nodes (Annestown, Ballylaneen, Ballymacaw, Butlerstown, Faithlegg, Fenor, Grange, Kilbrien, Knockanore, Mellary, Modeligo, Piltown, Whitechurch).

The new population provided for by the Plan will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes;
- Increase in demand for waste water treatment at the municipal level;
- Increase in demand for water supply and associated potential impact of water abstraction;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan.

Existing Problems

There is historic and predictive evidence of flooding in various locations across the City and County.

The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. The number of homes within the City and County with radon levels above the reference level is within the normal range experienced in other locations across the country.

3.5 Soil

Brown earths[4] (occupying north-east, east, south and south-west of the County) are the most dominant soil type in the County. Peatland areas along the uplands of the County are subject to various ecological designations.

[4] Brown earths are well drained mineral soils, associated with high levels of natural fertility.

The audit of County Geological Sites in Waterford City and County was completed in 2012 and identified 55 County Geological Sites[5], including two overview sites of the Copper Coast and Comeragh Mountains. Concentrations of these designations can be found in the upland areas and along the coast.

There are a number of Source Protection Areas in Waterford City and County.

The County has numerous locations with a history of landslide events. Many of these events are associated with the peatland and upland areas in the Comeragh Mountains. The GSI have identified that most of the County has relatively low levels of landslide susceptibility, with moderate and high susceptibility found in upland areas.

3.6 Water

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving good status. All public bodies are required to coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted and improve polluted water bodies to good status.

Catchments draining the County include:

- Blackwater (Munster) - an area drained by the River Blackwater and all streams entering tidal water between East Point and Knockaverry, Youghal, County Cork;
- Colligan-Mahon - an area drained by the Rivers Colligan and Mahon and all streams entering tidal water between Cheekpoint and East Point, Country Waterford; and
- Suir - an area drained by the River Suir and all streams entering tidal water between Drumdowney and Cheekpoint, County Waterford.

The main rivers within the County include the Rivers Suir, Blackwater and Bride.

The status of most of the rivers within the County is classified as *moderate*, *good* and *high*, however sections[6] of rivers (including: Suir; St. Johns; Leperstown Stream; and Brickey) are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status.

The surface water status (2013-2018) of lakes within and surrounding the County is identified as *good* (including Carrigavantry) and *moderate* (including Knockaderry, Belle and Ballyshunnock).

The surface water status (2013-2018) of transitional and coastal waterbodies within and surrounding the County is identified as *high* (including: Upper Blackwater Estuary; Tramore Back Strand; and Dungarvan Harbour), *good* (including Lower Suir Estuary, Little Island - Cheekpoint) and *moderate* (including: Barrow/ Suir/Nore Estuary; Lower Blackwater Estuary/ Youghal Harbour; Youghal Bay; and Waterford Harbour), however, some transitional waterbodies (including: Upper Suir Estuary; Middle Suir Estuary; and Colligan Estuary) are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status.

The surface water status (2013-2018) of waterbodies (including rivers and transitional waterbodies) within Waterford City ranges from *moderate* (including the Halfway House Stream) to *poor* (including St. John's River).

Significant pressures, those pressures which need to be addressed in order to improve water quality, have been identified[7] for waterbodies that are 'At Risk' of not meeting their water quality objectives under the WFD.

The WFD surface water status (2013-2018) of rivers within and surrounding the City and County is shown on Figure 3.2.

[5] *The Geological Heritage of Waterford. An audit of County Geological Sites in Waterford*, Geological Survey of Ireland, 2012.
[6] As per EPA classification system (gis.epa.ie/EPAMaps)
[7] EPA (2019): Report on Water Quality in Ireland 2013-2018

The WFD status (2013-2018) of groundwater underlying the entire County is mostly identified as being of *good* status, with areas of *poor* status to north-west of Dungarvan[8] and in parts of the south of Waterford City[9].

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The vulnerability of aquifers is classified as being:

- *High and moderate*, throughout most of the County;
- *Low vulnerability,* in small areas throughout the County; and
- *Extreme vulnerability* and *extreme (rock at or near surface or karst)* including in the central and upland areas.

Certain areas across the City and County are at risk of flooding from sources including coastal, groundwater, pluvial[10] and fluvial[11]. There is historic evidence of flooding in various locations across the County, including: along Rivers Blackwater, Colligan, Tay, Mahon and Suir and at various locations along the coastline.

Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, certain surface and groundwater bodies will need improvement in order to comply with the objectives of the WFD.

The Plan includes provisions that will contribute towards improvements in the status of waters.

There is historic and predictive evidence of elevated levels of flood risk at various locations across the City and County.

[8] Underlying a Waste Facility (W0032-02).
[9] Underlying a Waste Facility (W0018-01) and Industrial Facility (P0157-02).
[10] Resulting from high intensity rainfall events where run-off volume exceeds capacity of surface water network.
[11] Watercourse capacity is exceeded or the channel is blocked and excess water spills from the channel onto adjacent floodplains.

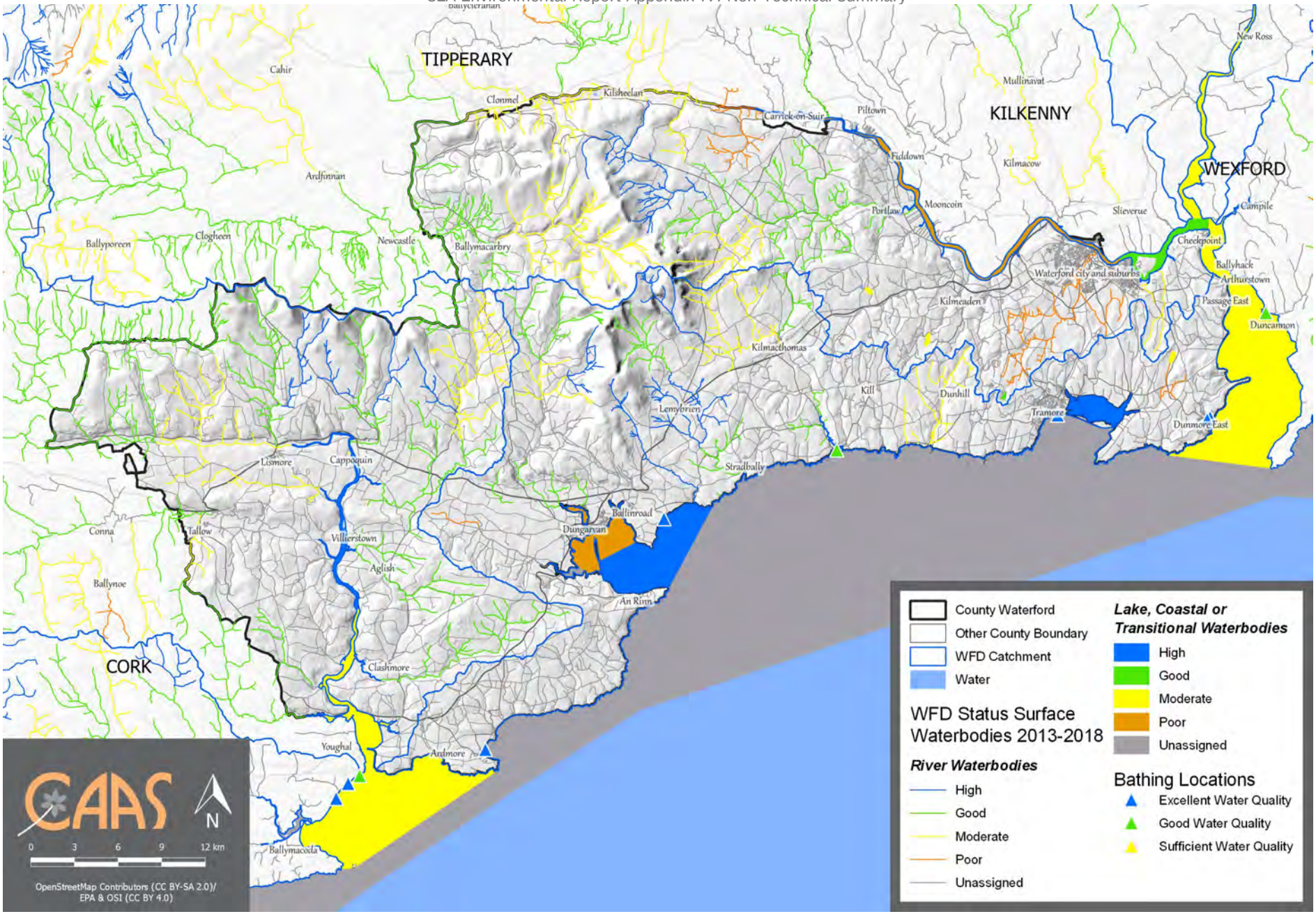

Figure 3.2 Surface Water Status (2013-2018)

3.7 Air and Climatic Factors

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

The National Climate Action Plan 2021 is an all of Government plan to tackle climate change and bring about a step change in Ireland's climate ambition over the coming years. The Plan sets out an ambitious course of action over the coming years to address the diverse and wide-ranging impacts climate disruption is having on Ireland's environment, society, economic and natural resources. The Climate Action Plan sets out clear 2030 targets for each sector with the ultimate objective of achieving a transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable society and economy by 2050. The Action Plan deals with both mitigation and adaptation.

Climate mitigation describes action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change.

The Climate Change Advisory Council's Annual Review 2020 identifies that the most recent projections demonstrate that, under different assumptions, Ireland will not meet its emissions reduction targets, even with the additional policies and measures included in the 2018 National Development Plan (superseded in 2021). The projections also show that progress on reducing emissions is sensitive to the future path of fuel prices. A significant and sustained rate of emissions reduction of approximately - 2.5% per year is required to meet our objectives for 2050. It is noted that additional measures within the recent Climate Action Plan are not included.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts.

The National Adaptation Framework Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework, a number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for.

The Waterford City and County Council Climate Change Adaptation Strategy 2019-2024 seeks to:

- Ensuring the effective and efficient delivery of functions and services under changing climatic conditions to reduce risk and increase resilience.
- Integrating climate change and adaptation considerations into policies and decision-making processes.
- Responding effectively to emergency situations to extreme weather events.
- Managing climate change risks to public assets owned or managed by WCCC (on behalf of or in partnership with other bodies/agencies).
- Translating and implementing national adaptation polices and cross-sectoral adaptation initiatives at a local level e.g. CFRAM mapping.
- Ensuring access to up to date and relevant climate change data and information to maintain an understanding of risks/vulnerabilities that the changing climate presents to local communities, local economic development, the natural environment and opportunities arising to support adaptation actions.
- Working with communities and local organisations to build resilience and adaptive capacity.
- Collaborating through partnerships with other agencies to achieve effective climate adaptation for Waterford.

The EPA's (2020) Air Quality in Ireland 2019 identifies that:

- Air quality in Ireland is generally good however there are localised issues;
- Nitrogen dioxide (NO_2) from transport emissions is polluting urban areas; and
- Ireland was above World Health Organization air quality guideline value levels at 33 monitoring sites – mostly due to the burning of solid fuel within settlements across the country.

With regard to solutions, the report identifies that:

- To tackle the problem of particulate matter, clean ways of heating homes and improve energy efficiency of homes can be progressed; and
- To reduce the impact of nitrogen dioxide, transport options in the Government's Climate Action Plan can be implemented and transport choices can be considered by individuals.

In order to comply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at locations across the country. The current [12] air quality within the Plan area is identified by the EPA as being *good*.

3.8 Material Assets

Other material assets, in addition to those referred to below, covered by the SEA include archaeological and architectural heritage (see Section 3.9) natural resources of economic value, such as water and air (see Sections 3.6 and 1.1).

Public Assets and Infrastructure
Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include; settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, wastewater infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil.

Waste Water
The EPA's 2020 report *'Urban Wastewater Treatment in 2019'* identified that:

- Wastewater treatment at 19 towns and cities (including **Portlaw**) did not meet European standards for the treatment of urban wastewater in 2018;
- Wastewater from 48 areas (including **Dungarvan** and **Kill**) is the main significant pressure on waters at risk of pollution;
- **There are four urban areas in the County that are listed as Priority Areas** (**Dungarvan, Kill** and **Portlaw**) where improvements are required to resolve urgent environmental issues with respect to wastewater treatment.

The County is served by Wastewater Treatment Plants (WWTPs) that are in the ownership and maintenance of Irish Water. In unserviced areas and outside the main settlements, the main method of sewage disposal is by individual septic tanks and proprietary wastewater treatment systems. Waterford City is served by the Waterford City WWTP, which has a designed capacity of 190,600 PE.

Irish Water has provided information on wastewater treatment capacity, constraints and projects planned within the County to improve the existing network, to assist the Council in the preparation of the new County Development Plan. Spare treatment capacity is identified as being available in most of the settlements, except for Annestown, Fenor, Clonea Power and Bonmahon/Knockmahon. The highest levels of headroom are available at Waterford City and Suburbs, Dungarvan and Dunmore East.

Waterford City and County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned or identified for development are serviced by an adequate wastewater collection and treatment system and in particular, to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the delivery of new or improved wastewater treatment plants.

Water Supply
Irish Water is responsible for providing and maintaining adequate public water supply infrastructure throughout the County. There are 48 Water Resource Zones (WRZ) in County Waterford. The largest water resource zone is the East Waterford WRZ which serves Waterford City and Tramore, as well as a large rural hinterland and several villages. The Dungarvan WRZ serves Dungarvan Town, as well as some smaller villages and rural hinterland.

The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with Drinking Water Regulations. The most recent available RAL (Q4 of 2020 published in January 2021) identifies one County Waterford drinking water supply:

- **The Dungarvan Water Supply** is listed on the most recent EPA RAL due to poor turbidity removal. This Water Supply Scheme has a supply volume of 5,958 m^3/day, serving a population of 11,472 people. The proposed plan of action to remedy this issue is to upgrade the water treatment plant - install run to waste facility, turbidity monitors on each borehole, flow meters and level probes to be completed by June 2021.

[12] 07/04/2021 (http://www.epa.ie/air/quality/)

Currently, Irish Water is developing the National Water Resource Plan outlining how to move to a sustainable, secure and reliable public drinking water supply over a 25-year period while safeguarding the environment. It will outline how Irish Water intends to maintain a balance between supply from water sources around the country and demand for drinking water over the short, medium and long term. This will facilitate future planning and ensure provision of sufficient, safe, clean drinking water to facilitate the social and economic growth of the County.

It is the policy of the Council to work in conjunction with Irish Water to protect existing water infrastructure, to maximise the potential of existing capacity and to facilitate the timely delivery of new wastewater services infrastructure to facilitate future growth.

Waste Management
Waste management across the City and County is guided by the Southern Waste Management Plan 2015-2021.

Transport
Road and rail infrastructure in the City and County has the potential to support reductions in energy demand from the transport sector, including through electrification of modes.

Land
The Plan seeks to assist with the reuse and regeneration of brownfield sites thereby contributing towards sustainable mobility and reducing the need to develop greenfield lands and associated potential adverse environmental effects. Brownfield lands are generally located within urban/suburban areas.

Existing Problems
There are a number of challenges with respect to the provision of water services infrastructure, some of which are summarised above.

The provisions of the new County Development Plan will contribute towards protection of the environment with regard to impacts arising from material assets.

3.9 Cultural Heritage

Archaeological Heritage
Archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts. The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped.

Waterford is Ireland's oldest city and has a rich and significant archaeological heritage, with the largest collection of medieval urban defences in Ireland with six intact towers, and over 700m meters of wall. There are many sites of significant archaeological interest in County, including the remains of a 9th century settlement in Woodstown along the River Suir - a unique and internationally important Viking site.

There are hundreds of Recorded Monuments within the County, including graveyards, castles, forts, crosses and churches. Clusters of archaeological heritage in the County are concentrated in the foothills of the mountains, along the coast and within and surrounding towns and villages. There are lower concentrations in the central upland areas.

County Waterford has significant industrial heritage with many sites documented by the National Monuments Service, including its industrial mining heritage within the Copper Coast Global UNESCO Geopark.

Architectural Heritage
The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all: structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest.

Records of Protected Structures are legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended. Protected structures are defined in the Planning and Development Act

2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view. There are 1,477 entries to the Record of Protected Structures within the County, including 677 in the City. Similar to the general spatial spread of archaeological heritage, clusters of architectural heritage are located within the County's settlements.

Waterford's rich industrial and maritime heritage (such as mills, quays and lighthouses) and vernacular heritage (including town houses, thatched cottages and farm complexes) contribute significantly to the built heritage character of the County.

In addition to Protected Structures, the Planning and Development Act provides the legislative basis for the protection of Architectural Conservation Areas (ACAs). An ACA is a place, area or group of structures or townscape that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contributes to the appreciation of protected structures, whose character it is an objective to preserve in a development plan. Existing ACAs are designated in Dungarvan and Waterford City at Trinity and South Quay.

ACAs are proposed for designation for various settlements.

Existing Problems
No existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

3.10 Landscape

Waterford has a very diverse landscape including uplands, waterway corridors, demesne and coastal landscapes. Mountain regions, including the Comeragh Mountains, are found mainly in the north-west and centre of the County, and several south-flowing river systems, including the Suir, the Blackwater and the Bride, and a rugged coastline with many coves and beaches in the east and south-east of the County. The east of the County is low-lying and has a concentration of lakes and wetlands.

The Landscape and Seascape Character Assessment for Waterford City and County identifies six landscape types:

- Coastal;
- River Corridor and Estuary;
- Farmed Lowland;
- Foothill;
- Upland; and
- Urbanised.

Existing Environmental Problems
New developments have resulted in changes to the visual appearance of lands within the City and County however legislative objectives governing landscape and visual appearance were not identified as being conflicted with

3.11 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and that are required to be implemented. The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

Table 3.1 Strategic Environmental Objectives

Environmental Component	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	No net contribution to biodiversity losses or deterioration	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Action Plan and its targets • To protect, maintain and conserve the City and County's natural capital
Population and Human Health	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard the City and County's citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield sites within the City and County • Safeguard areas of prime agricultural land and designated geological sites
Water	Protection, improvement and sustainable management of the water resource	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion, particularly coastal areas • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	Sustainable and efficient use of natural resources	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the City and County – this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids
Air	Support clean air policies that reduce the impact of air pollution on the environment and public health	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels
Climatic Factors	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	• To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into the City and County's infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • Promote development resilient to the effects of climate change • Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	Safeguard cultural heritage features and their settings through responsible design and positioning of development	• Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	Protect and enhance the landscape character	• To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

Section 4 Alternatives

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Available reasonable alternatives for the City and County Development Plan are provided below.

4.2 Limitations in Available Alternatives

The Plan is required to be prepared by the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan. The alternatives available for the Plan are limited by the provisions of higher-level planning objectives, including those of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Region and associated Waterford Metropolitan Area Strategic Plan (MASP). These documents set out various requirements for the content of the Plan including on topics such as settlement typology, land use zoning and the sustainable development of rural areas.

4.3 Assessment of Alternatives for an Ecosystem[13] Services Approach to the Plan

Alternative A: "A Plan that takes a more focused Ecosystems Services Approach" would integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Principles that would be integrated throughout the Plan, in a coordinated and comprehensive manner, would include:

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function;
- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation or recreation, culture and quality of life; and
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

This would mean that there would be:

- An increased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues, such as the management of air quality, noise pollution, light pollution, pollination, flood risk, water bodies and river basins and natural resources supporting energy production and recreation; and
- A decreased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Alternative B: "A Plan that does the basics but takes a less focused Ecosystems Services Approach" would not integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

A less-interventionist approach to Ecosystems Services would provide less focus and attention to Ecosystem Services than would be the case under Alternative A and would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

[13] Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing

As has been the case over previous plan periods, many natural capital and ecosystem service issues would be integrated into individual Plan Policy Objectives and into decision making at lower tiers of plan preparation and development management. However, this approach would be less coordinated and comprehensive than would be the case under Alternative A.

This would mean that there would be:

- A decreased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues; and
- An increased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Selected Alternative: Alternative A.

4.4 Assessment of Alternatives for an infrastructure led approach to the Plan

In terms of infrastructure led approach to the plan, two alternatives can be considered:

- **Alternative A:** A Plan that takes a strict infrastructure led approach.

  It is essential that development under the Plan is adequately served by infrastructure. An infrastructure led approach would support achieving the objectives of the NPF and RSES and associated Waterford MASP. An infrastructure led approach would provide a strategy for sustainable compact growth in all settlements, contribute to carbon reduction targets and achieve environmental enhancement and economic growth.

  This alternative ensures that the sustainable development of settlements occurs, with new development accompanied by adequate and appropriate infrastructure.

  This alternative would also facilitate the development of a concentric Waterford City, both north and south of the River Suir, and other key enablers for the MASP area.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the most and would provide the highest levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be more likely to be successful, and residual adverse effects would be least likely. This approach would also contribute towards compliance with the objectives of the RSES and NPF.

- **Alternative B**: A Plan that does not takes a less strict infrastructure led approach.

  This alternative considers existing and future demand and capacity in infrastructure but the allocation of growth and associated policy responses are looser than under Alternative A. Decisions relating to infrastructure assessment are left to project level wherever this is possibly.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the least and would provide reduced levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be less likely to be successful, and residual adverse effects would be more likely. Taking a less strict infrastructure led approach would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

Selected Alternative: Alternative A.

4.5 Assessment of Alternatives for Rural Waterford

(i) Rural Areas under Strong Urban Influence/Pressure

- **(i) Alternative A:** Designate Rural Areas under Strong Urban Influence/ Pressure

  The methodology behind Alternative A, would build on the current policy framework set out in the Waterford County Development Plan 2011 – 2017, and would be consistent with the strategy and policy objectives of the NPF and RSES, and Section 28 Ministerial guidelines.

  Alternative A provides for a robust and transparent policy approach to manage rural housing.

  Restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres.

  Single dwellings in rural areas would be facilitated as appropriate and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

- **(i) Alternative B:** Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.

  In terms of aligning the SEA, AA, SFRA and the Plan Policy Objectives, pursuing Alternative B would raise significant challenges in assessing the full impacts and effects of the alternative strategy approach on the environment, particularly water quality, biodiversity, loss of productive capacity, road capacity and carbon footprint. Furthermore, such an Alternative would be contrary to the NPF, RSES and Ministerial guidelines.

  Alternative B Provides a vague and unclear policy approach to rural housing and risks facilitating a significant increase in urban-generated one-off housing in the open countryside which will undermine the role of small towns and villages and have consequences for the environment.

  Not restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would adversely impact upon the protection and management of the environment and sustainable development. The absence of restrictions would result in increased levels of greenfield development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres.

  Urban generated housing development would occur within rural areas outside of established settlements. This alternative would result in low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

  It is considered that Alternative A is the most appropriate means of ensuring that a sustainable approach to rural housing need and demand can be met, in a manner that considers the requirements of communities, and those of the NPF and RSES.

Selected Alternative: Alternative A.

(ii) Villages/Clusters/Nodes and Serviced Sites

- **(ii) Alternative A:** Provide focus to and targeted policies/objectives for rural villages, clusters and nodes to act as a viable alternative to one-off housing in the open countryside.

  Alternative A, by providing focus to and targeted policy objectives for the rural villages, clusters and nodes would facilitate a viable alternative to one-off housing in the open countryside. Development within these settlements would be more likely to be served by infrastructure (including water services infrastructure) and more likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Development would be required to be subject to siting, design, protection of residential amenities and normal development management criteria, subject to the satisfactory provision of infrastructure and services and in keeping with the character of the settlement.

  The identification of rural villages, clusters and nodes to facilitate a choice in providing for the housing and community needs of rural areas is an important element of supporting a choice and mix of housing within Waterford. This alternative would facilitate this by way of identifying such locations, and setting out development boundaries within which development may take place.

- **(ii) Alternative B:** Rural villages, clusters and nodes are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside

  Alternative B, by not providing a focus to and targeted policy objectives for rural villages, clusters and nodes would be less likely to provide a viable alternative to one-off housing in the open countryside. Development within the open countryside would be less likely to be served by infrastructure (including water services infrastructure) and less likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Alternative B would the least sustainable of these two alternatives and would be most harmful to the environment.

  Identifying areas within existing villages and nodes to support clustering of residential development across rural Waterford is an important element of providing choice in the housing market outside of urban settlements, in a manner consistent, in principle, with the NPF and RSES. Alternative A is therefore preferred.

Selected Alternative: Alternative A.

4.6 Assessment of Alternatives for Densities

Alternatives identified relating to densities comprise:

Alternative A: Application of a single standard residential density across all settlements.

The application of a low net singular residential density across the City and County would have the potential to push new development towards more environmentally sensitive lands that are less well-serviced and less well-connected, resulting in unnecessary potentially significant adverse effects on all environmental components.

The application of a singular high net residential density could result in a potential mis-alignment between the supply of zoned land to meet the projected demand for new housing. This could result in a misalignment between new development and essential services provision with associated potential for adverse effects on environmental components.

Alternative B: The Application of different densities at different locations, as appropriate, would provide for the most sustainable development, which would contribute towards environmental protection and management the most.

> Higher densities would be provided where sustainable transport mode opportunities are available and lower densities would be provided where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network. This approach would contribute towards national and regional strategic outcomes including the efficient use of land, compact growth and the transition towards a low carbon and more climate resilient society.
>
> Alternative B would help to ensure compact, sustainable development within and adjacent to the existing built-up footprint and would conflict with the protection and management of environmental components the least. Alignment between new development and essential services provision would be most likely under Alternative B.

Taking cognisance of the range and diversity of settlements across the functional area of the development plan, and the settlement typology/ hierarchy, it is considered that Alternative B is the most sustainable option for delivering on the principles of compact growth, while facilitating placemaking, and the development of diverse rural areas a range of options for the housing market in terms of house type mix, tenure, design and cost, and delivering the Housing Strategy. Alternative B takes into account the objectives of the higher-level NPF and Southern RSES, and the need to comply with the densities set out in Ministerial Guidelines, including those related to *Sustainable Residential Development in Urban Areas (2009)* and *Urban Development and Building Heights (2018)*.

Selected Alternative: Alternative B.

4.7 Assessment of Alternatives for Land Use Zoning

Alternatives for Land Use Zoning are assessed on Table 4.1.

Table 4.1 Assessment of Alternatives against Strategic Environmental Objectives

Town	Alternative (selected alternatives in **bold**)	Commentary
Waterford City & Suburbs	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the City and suburbs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the City and suburbs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Dungarvan/ Ballinroad	Alternative A: More Compact **see note below**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

Town	Alternative (selected alternatives in **bold**)	Commentary
Clonmel Environs	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of Clonmel Environs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Clonmel Environs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Tramore	Alternative A: More Compact **see note below**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Dunmore East	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Portlaw	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Lismore	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

Town	Alternative (selected alternatives in **bold**)	Commentary
Gaeltacht na nDéise	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the Gaeltacht na nDéise, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Gaeltacht na nDéise and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

4.8 Reasons for Selecting Chosen Alternatives

Selected alternatives for the Plan from each of the various types of alternatives that emerged from the planning/SEA process are indicated above.

These alternatives have been incorporated into the Plan having regard to both:

1. The environmental effects which are identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects.

Section 5 Summary of Effects arising from Plan

5.1 Overall Effects

Table 5.1 summarises the overall environmental effects arising from Plan provisions. The effects encompass all in-combination/cumulative effects arising from implementation of the Plan. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Plan are detailed as are residual effects, taking into account mitigation through both provisions integrated into the Plan – see summary at Section 6.

5.2 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects.

However, a number of alterations were adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan and were advised against by the Plan-preparation SEA process. Advice provided on the environmental consequences of these alterations included:

> Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. These alterations would not be consistent with established population targets and/or the proper planning and sustainable development of the County. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, biodiversity, air and climatic factors and material assets.
>
> For alterations relating to zoning, much of the zoning proposed is considered to be premature in the context of current population targets.
>
> Potentially significant adverse unnecessary effects, would be likely to include:
> - Effects on non-designated habitats and species
> - Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces
> - Increased loadings on water bodies
> - Conflict with efforts to maximise sustainable compact growth and sustainable mobility
> - Occurrence of adverse visual impacts
>
> Where such alterations are further from the centre of settlements, potentially significant unnecessary adverse effects would be likely to include:
> - Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of settlements (At An Rinn, in particular, the Council have identified major network capacity issues and that pump station and network upgrades are required to deal with current loading)
> - Adverse impacts upon the economic viability of providing for public assets and infrastructure
> - Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives
> - Conflicts between transport emissions, including those from cars, and air quality
> - Conflicts between increased frequency of noise emissions and protection of sensitive receptors
> - Potential effects on human health as a result of potential interactions with environmental vectors

Table 5.1 Overall Evaluation – Effects arising from the Plan

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. • Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. • Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.	• Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. • Losses or damage to ecology (these would be in compliance with relevant legislation).
Population and Human Health	• Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	• Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under “Soil”, “Water” and “Air and Climatic Factors” below.

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur		**Significant Positive Effect, likely to occur**
Soil	• Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the protection of the environment from contamination the highest standards of remediation, and where appropriate to consultations with the EPA and other relevant bodies, will be required to resolve any instances of environmental pollution created by contaminated land.	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.	• Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. • Riverbank and coastal erosion will continue to occur naturally over time and is likely to be enhanced by climate change.
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. • Contribution towards flood risk management and appropriate drainage.	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.	• Any increased loadings as a result of development to comply with the River Basin Management Plan. • Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Plan.
Material Assets	• Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards compliance with national and regional water services and waste management policies. • Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. • Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.	• Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. • Residual wastes to be disposed of in line with higher-level waste management policies. • Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: o Sustainable compact growth; o Sustainable mobility, including walking, cycling and public transport; o Drainage, flood risk management and resilience; o Sectors including agriculture, forestry, energy and buildings; and o Sustainable design, energy efficiency and green infrastructure.	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	• An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable compact growth and sustainable mobility. • Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Plan to ensure that noise levels at sensitive receptors will be minimised.
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere in the City and County by facilitating development within existing settlements. • Contributes towards protection of cultural heritage within existing settlements by facilitating brownfield development and regeneration.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	• Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	• Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the Plan's landscape protection measures.

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Various environmental sensitivities and issues have been communicated to the Council through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating all related recommendations into the Plan, the Council have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through the:

- Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development[14];
- Considering alternatives for the Plan[15];
- Integration of environmental considerations into zoning provisions of the Plan[16]; and
- Integration of individual SEA, AA and SFRA provisions into the text of the Plan.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified at Table 3.1 and used in the evaluation. Monitoring indicators, targets, sources and remedial action is provided at Table 6.1 overleaf.

[14] Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval and the placing of the Draft Plan on public display, Waterford City and County Council undertook various works in order to inform the preparation of the Plan.

The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including:

- Economy, Tourism, Education and Retail;
- Transport and Mobility;
- Utilities Infrastructure, Energy and Communication;
- Housing and Sustainable Communities;
- Placemaking;
- Climate Action, Biodiversity and Environment;
- Landscape, Coast/ Marine and Blue Green Infrastructure; and
- Heritage.

[15] Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan (see Section 4), as part of the Plan preparation/SEA process, the Council considered a number of alternatives for the Plan. These alternatives were assessed by the SEA process and the findings of this assessment informed the selection of preferred alternatives, facilitating an informed choice with respect to the type of Plan that was prepared and placed on public display.

[16] Environmental considerations were integrated into the Plan's zoning through an interdisciplinary approach. Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Southern RSES. The detailed Plan preparation process undertaken by the Planning Department combined with specialist seeks to facilitate zoning that will help to avoids inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity. Various provisions have been integrated into the Plan that provide for flood risk management and ecological protection and management at project level. Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). [17] • DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years) [18] • Consultations with the NPWS [19]	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
	• Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• Internal review of local land use plans	• Review internal systems
	• SEAs and AAs as relevant for new Council policies, plans, programmes etc.	• Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.	• Internal monitoring of preparation of local land use plans	• Review internal systems
	• Status of water quality in the City and County's water bodies	• Included under Water below	• Included under Water below	• Included under Water below
	• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
Population and Human Health	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail"	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail" • By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)	• Internal review of progress on implementing Plan objectives • Consultations with DECC	• Review internal systems • Consultations with DECC
	• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	• Consultations with the Health Service Executive and EPA	• Consultations with the Health Service Executive and EPA
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
	• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping	• Internal review of local land use plans	• Review internal systems

[17] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[18] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[19] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

Environmental Component	Indicators	Targets	Sources	Remedial Action
Soil (and Land)	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Maintain built surface cover nationally to below the EU average of 4% • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels across the City and County	• EPA Geoportal • Compilation of greenfield and brownfield development for the DHLGH • AA/Screening for AA for each application	• Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
	• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements	• Internal review of grants of permission where contaminated material must be disposed of	• Consultations with the EPA and Development Management
	• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	• Internal monitoring of grants of permission	• Review internal systems
Water	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan	• EPA Monitoring Programme for WFD compliance	• Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
	• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• Internal monitoring of likely significant environmental effects of grants of permission	• Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	• Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health	• Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Irish Water • DHLGH in conjunction with Local Authorities	• Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.

Environmental Component	Indicators	Targets	Sources	Remedial Action
Air	• Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% • NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels • Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter	• CSO data • Data from the National Travel Survey • EPA Air Quality Monitoring • Consultations with Department of Transport and Department of Environment, Climate and Communications	• Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
	• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	• Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024 • EPA Annual National Greenhouse Gas Emissions Inventory reporting • Climate Action Regional Office • Consultations with DECC	• Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
	• Share of renewable energy in transport	• Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan		
	• Carbon dioxide (CO_2) emissions across the electricity generation, built environment and transport sectors	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors		
	• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating		
	• Proportion of journeys made by private fossil fuel-based car compared to 2016 levels	• Decrease in the proportion of journeys made by residents of the City and County using private fossil fuel-based car compared to 2016 levels	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
Cultural Heritage	• Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals visitor pressure is causing negative effects on key tourist features along these routes, the Council will work with Regional Assembly, Fáilte Ireland and other stakeholders to address the pressures through additional mitigation tailored to the plans.
	• Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Consultation with DHLGH	
Landscape	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation

Appendix 19b
SEA Environmental Rerport

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

SEA ENVIRONMENTAL REPORT

FOR THE

WATERFORD CITY AND COUNTY DEVELOPMENT PLAN 2022-2028

for: **Waterford City and County Council**

City Hall

The Mall

Waterford City

by: **CAAS Ltd.**

1st Floor

24-26 Ormond Quay Upper

Dublin 7

JULY 2022

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List of Abbreviations

AA	Appropriate Assessment
ACA	Architectural Conservation Area
CAFE	Cleaner Air for Europe
CFRAM	Catchment Flood Risk Assessment and Management
CORINE	Co-ORdinated INformation on the Environment
CSO	Central Statistics Office
DAFM	Department of Agriculture, Food and Marine
DCCAE	Department of Communication, Climate Action and Environment
DCHG	Department of Culture, Heritage and the Gaeltacht
DECC	Department of Environment, Climate and Communications
DEHLG	Department of the Environment, Heritage and Local Government
DHLGH	Department of Housing, Local Government and Heritage
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EQS	Environmental Quality Standard
EU	European Union
FPO	Flora Protection Order
GSI	Geological Survey of Ireland
LTPs	Local Transport Plans
MASP	Metropolitan Area Strategic Plan
NHA	Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NTA	National Transport Authority
OPW	Office of Public Works
pNHA	proposed Natural Heritage Area
PAS	Priority Action Substance
PLUTS	Planning and Land-use Transportation Study
POPs	Persistent Organic Pollutants
RAL	Remedial Action List
RBD	River Basin District
RMP	Record of Monuments and Places
RPA	Register of Protected Areas
RSES	Regional Spatial and Economic Strategy
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SI No.	Statutory Instrument Number
SPA	Special Protection Area
THMs	Trihalomethanes
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WHO	World Health Organisation
WFD	Water Framework Directive
WRZ	Water Resource Zone
WMATS	Waterford Metropolitan Area Transport Strategy
WWTP	Wastewater Treatment Plant

Glossary

Appropriate Assessment

The obligation to undertake Appropriate Assessment (AA) derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan or programme) or project, alone and in combination with other strategic actions and projects, on the integrity of a European Site in view of its conservation objectives.

Biodiversity and Flora and Fauna

Biodiversity is the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems' (United Nations Convention on Biological Diversity 1992).

Flora is all of the plants found in a given area.

Fauna is all of the animals found in a given area.

Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain Plans and programmes on the environment (the Strategic Environmental Assessment Directive) requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the outset they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

Environmental Vectors

Environmental vectors are environmental components, such as air, water or soil, through which contaminants or pollutants, which have the potential to cause harm, can be transported, coming into contact with human beings.

Mitigate

To make or become less severe or harsh.

Mitigation Measures

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing a human action, be it a plan, programme or project. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration should be given in the first instance to preventing such effects or, where this is not possible, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after they have occurred; and compensate for effects, balancing out negative impacts with other positive ones.

In the context of Article 6 of the Habitats Directive, mitigation measures are clearly distinguished from compensatory measures. Compensatory measures are intended to offset the negative effects of the plan or project so that the overall ecological coherence of the Natura 2000 Network is maintained.

Natural Heritage

The Heritage Act (1995) defines natural heritage as including flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, geology, inland waterways, heritage gardens and parks.

Protected Structure

Protected Structure is the term used in the Planning and Development Act 2000 (as amended) and associated Regulations (as amended) to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

Recorded Monument

A monument included in the list and marked on the map which comprises the Record of Monuments and Places that is set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified. Any works at or in relation to a recorded monument requires two months' notice to the Department of Culture, Heritage and the Gaeltacht under Section 12 of the National Monuments (Amendment) Act, 1994.

Scoping

Scoping is the process of determining what issues are to be addressed, and setting out a methodology in which to address them in a structured manner appropriate to the plan or programme. Scoping is carried out in consultation with appropriate environmental authorities.

Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt it.

Strategic Environmental Objective (SEO)

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at International, Community or Member State level and are used as standards against which the provisions of the Plan and the alternatives were evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

Section 1 SEA: Introduction and Benefits

1.1 Introduction

This is the Strategic Environmental Assessment (SEA) Environmental Report for the Waterford City and County Development Plan 2022-2028. It has been undertaken by CAAS Ltd. on behalf of Waterford City and County Council. The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Plan.

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before such decisions are made. *Environmental Impact Assessment*, or EIA, is generally used for describing the process of environmental assessment for individual projects, while *Strategic Environmental Assessment* or SEA is the term which has been given to the environmental assessment of plans and programmes, which help determine the nature and location of individual projects taking place. SEA is a systematic process of predicting and evaluating the likely significant environmental effects of implementing a proposed plan or programme, in order to ensure that these effects are adequately addressed at the earliest appropriate stages of decision-making in tandem with economic, social and other considerations.

The SEA is being undertaken in order to comply with European SEA Directive[1], which introduced the requirement that SEA be carried out on plans and programmes that are prepared for a number of sectors, including land use planning.

1.2 Implications for the Planning Authority

SEA identifies the likely significant environmental effects of implementing the Plan. The findings of the SEA are expressed in this Environmental Report, an earlier version of which accompanied the Draft Plan on public display and has been updated following consultation, and identifies how environmental considerations were integrated into the Plan and how alternatives for the Plan were considered.

The planning authority has taken into account the findings of this report and other related SEA output during the Plan preparation process.

Following adoption of the Plan, an SEA Statement is prepared that summarises, inter alia, how environmental considerations have been integrated into the Plan.

1.3 Why SEA? The Benefits

SEA is the planning authority's and the public's guide to what are generally the best areas for development in the City and County.

SEA enables the planning authority to direct development towards robust, well-serviced and connected areas in the City and County – thereby facilitating the general avoidance of incompatible areas in the most sensitive, least well-serviced and least well-connected areas.

SEA provides greater certainty to the public and to developers. Plans are more likely to be adopted without delays or challenges and planning applications are more likely to be granted permission. Environmental mitigation is more likely to cost less.

An overlay of environmental sensitivities in Waterford City and County are shown on Figure 1.1. Further detail on the weighting applied to different sensitivities is provided under Section 4.14.

The overlay mapping shows that environmental sensitivities are not evenly distributed throughout the City and County. Much of the City and County is identified as having low to moderate levels of sensitivity.

[1] Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain plans and programmes on the environment, transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), as amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011), and the Planning and Development (SEA) Regulations 2004 (SI No. 436 of 2004), as amended by the Planning and Development (SEA) (Amendment) Regulations 2011 (SI No. 201 of 2011).

The most sensitive areas include:

- Upland and foothill areas of the County, including the Comeragh Mountains, on account of European Site ecological designations, archaeological heritage and landscape sensitives and areas of extreme and high groundwater vulnerability;
- Parts of the coastline and adjacent coastal areas, including Waterford Estuary, Tramore dunes and coast, the mid-Waterford Coast, Dungarvan Harbour, Helvic Head to Ballyquinn, Ardmore Head and the Blackwater Estuary, on account of European Site and proposed Natural Heritage Area and UNESCO Global Geopark designations, WFD RPA designations, areas of extreme groundwater vulnerability and coastal flood risk;
- Certain locations and areas within the existing built-up footprint of the County, including Waterford City, on account of cultural heritage designations, including entries to the Record of Monuments and Places, Entries to the Record of Protected Structures and Architectural Conservation Areas; and
- Certain areas that are adjacent to streams and rivers, on account of flood risk, including those areas along the Rivers Suir and Blackwater and their tributaries.

The Plan directs incompatible development away from the most sensitive areas in the City and County and focuses on directing: compact, sustainable development within and adjacent to the existing built-up footprints of the City and County's towns and villages; and sustainable development elsewhere, including in rural areas. Development of these generally more robust, well-serviced and well-connected areas of the City and County will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

Compact development can be accompanied by placemaking initiatives to enable the City and the County's towns and villages to become more desirable places to live – so that they maintain and improve services to existing and future communities.

Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

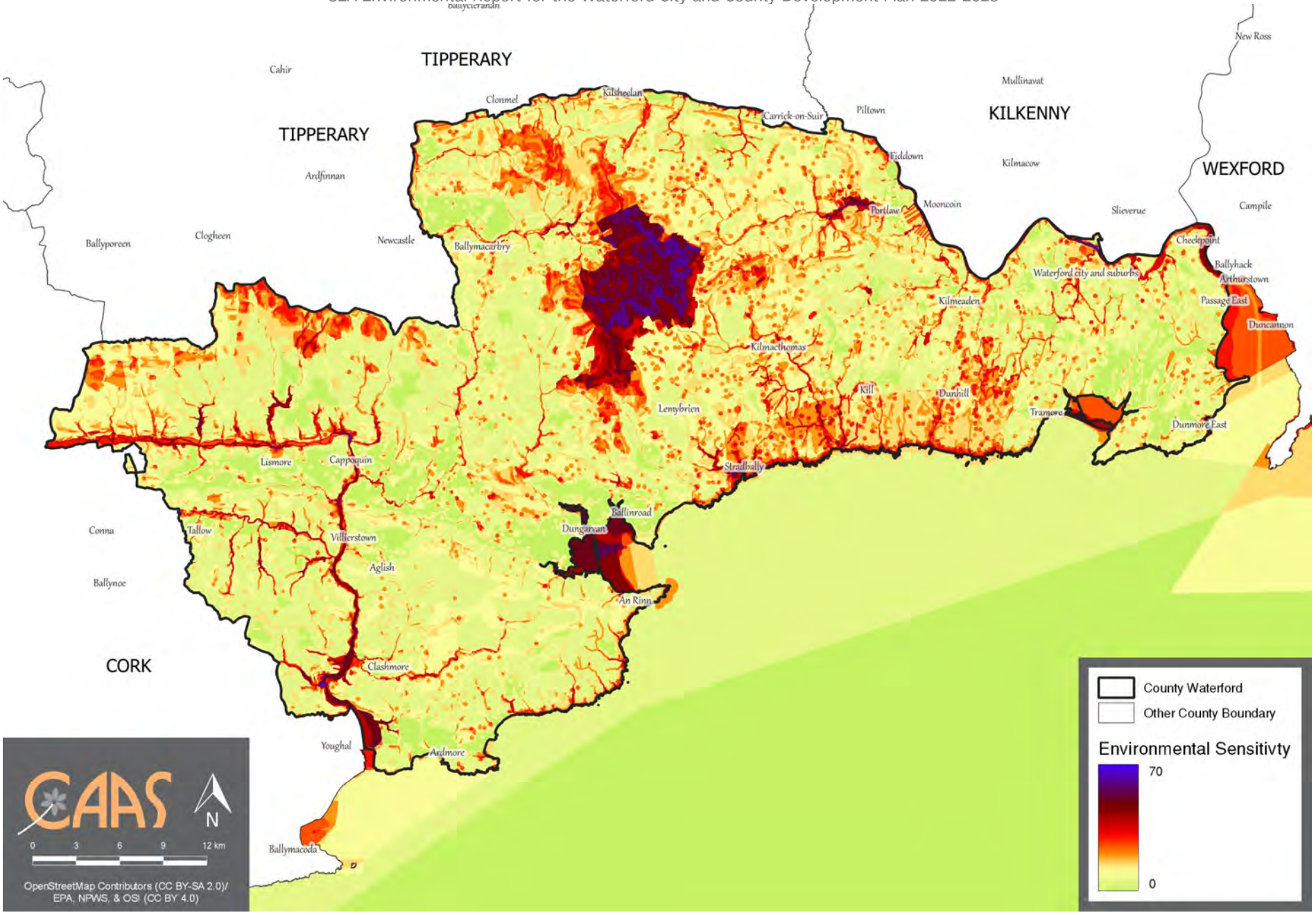


Figure 1.1 Overlay of Environmental Sensitivities in Waterford City and County

Section 2 The Plan

2.1 Introduction

The Waterford City and County Development Plan is a land use plan and overall strategy for the proper planning and sustainable development of Waterford City and County over the six-year period 2022-2028.

2.2 Content of the Plan

The Development Plan comprises a series of separate, but interrelated elements. The Plan is structured as follows:

- Volume 1: Written Statement consisting of the following:
    - Part 1: Vision and Strategy
    - Part 2: Waterford City and MASP Policy Objectives
    - Part 3: Waterford City & County Policy Objectives
- Volume 2: Development Management Standards
- Volume 3: Supporting Appendices (including: Retail Strategy: Housing Need and Demand Assessment; Landscape and Seascape Characterisation Assessment; RPS; ACAs; this SEA Environmental Report; and Natura Impact Report.

2.3 Plan Vision

The Vision of the Plan is as follows:

"By 2028, Waterford City and County will have continued to grow and will be evolving to become an even more attractive, prosperous, resilient, and sustainable place, anchored by Waterford City and Metropolitan area as the Regional Capital, a University and Learning City, and an economic driver for the region. It will be the best city and county in which to live, visit and do business.

We will be recognised as the Regional Capital and for:

- Our enterprise and inventiveness in the knowledge economy and high-value markets – with a particular focus on biopharmaceuticals, technological innovation, tourism, food and drink, fishing, and the primary industries;
- The development and growth of our educational capital through our university and its synergies with the broader economy; and,
- Our unique built, historic, cultural and natural environment, which will be protected and, where appropriate, enhanced as a key asset in underpinning a high quality of health/wellbeing, life and place.

The Council will have taken a proactive approach towards development that promotes and facilitates appropriate and sustainable development, that nonetheless:

- Ensures the sustainable use of natural resources;
- Enables us to live within the area's environmental capacity;
- Enables and enhances our resilience to climate change; and,
- Creates a more open, diverse and inclusive society."

2.4 Plan Core Strategy Strategic Aims

The Core Strategy Strategic Aims of the Plan are as follows:

1. Based on the population/employment targets and policy objectives of the NPF, RSES & MASP, provide a local policy framework to, support development where it is consistent with the principles of sustainable development, and which is applied through planning decisions which are clear, consistent, robust and risk adverse.
2. Identify investment priorities to deliver and support the settlement strategy and hierarchy, founded on the principle of infrastructure led development.
3. Counteract imbalances in housing type, tenure and location both within settlements, between settlements and across broader rural areas in order to meet the needs of the people of Waterford, mitigating current residential leakage and unsustainable travel patterns.
4. To require, where appropriate, all plans and projects to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. Protect the integrity all Natura 2000 sites, (p) HNA's and locally important Biodiversity Sites in Waterford.
5. To ensure the policies and objectives of the Development Plan demonstrate consistency with the national and regional policy objectives set out in the NPF, RSES and MASP.
6. To implement a tiered and infrastructure led approach to the development of new residential land and engage in active land management to bring forward opportunities for redevelopment where feasible.
7. Develop key infrastructure required to deliver the concentric city model for Waterford City, consistent with the NPF, RSES and MASP and founded on the assimilation of PLUTS and WMATS policy objectives.
8. Implement the Waterford City and County Council Climate Adaptation Strategy 2019 (as amended) and promote a climate resilient pattern of development and land uses which assists in achieving national climate change mitigation and adaption targets.
9. To protect and strengthen the retail primacy of Waterford City within the Southern Region.

10. To protect and enhance the vibrancy and vitality of urban and rural centres and their mixed use functions/capacity as community hubs.
11. To enhance the sense of place throughout settlements in Waterford and deliver 10 minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning.
12. To protect existing employment and promote new employment areas at strategic locations and in district and local services centres across Waterford County.
13. Acknowledge the vital importance of the tourism sector to economic development and continue to encourage and promote the sustainable development of a range of quality tourism facilities, attractions and accommodation types across Waterford.

2.5 Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval, the placing of the Draft Plan on public display and the adoption of the Plan, Waterford City and County Council undertook various works in order to inform the preparation of the Plan.

The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the City and County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including:

- Economy, Tourism, Education and Retail;
- Transport and Mobility;
- Utilities Infrastructure, Energy and Communication;
- Housing and Sustainable Communities;
- Placemaking;
- Climate Action, Biodiversity and Environment;
- Landscape, Coast/ Marine and Blue Green Infrastructure; and
- Heritage.

The undertaking of this SEA process and the associated AA and SFRA processes contributed towards the integration of environmental considerations into individual Plan provisions as detailed in Section 9 of this report.

2.6 Relationship with other relevant Plans and Programmes

It is acknowledged that many of the major issues affecting the City and County's development are contingent on national policy and government funding.

The Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Plan must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents include plans and programmes such as those detailed in Appendix I[2] (see also, Section 4 "Environmental Baseline", Section 5 "Strategic Environmental Objectives", Section 6 "Description of Alternatives" and Section 9 "Mitigation Measures"). These documents have been subject to their own environmental assessment processes, as relevant.

The National Planning Framework (NPF) sets out Ireland's planning policy direction up to 2040. The NPF is to be implemented through Regional Spatial and Economic Strategies (RSESs) and lower tier Development Plans and Local Area Plans. The RSES for the Southern Region sets out objectives for, for example, land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must be implemented through the City and County Development Plan.

[2] Appendix I is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

As required by the Planning and Development Act 2000, as amended, the City and County Development Plan is consistent with and conforms with national and regional policies, plans and programmes, including the NPF and the RSES for the Southern Region. The City and County Development Plan will, in turn, guide lower-level strategic actions, such as Local Area Plans that will be subject to their own lower-tier environmental assessments.

In order to be realised, projects included in the Plan (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier AA, EIA and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

Section 3 SEA Methodology

3.1 Introduction to the Iterative Approach

Figure 3.1 provides an overview of the integrated Plan preparation, SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes.

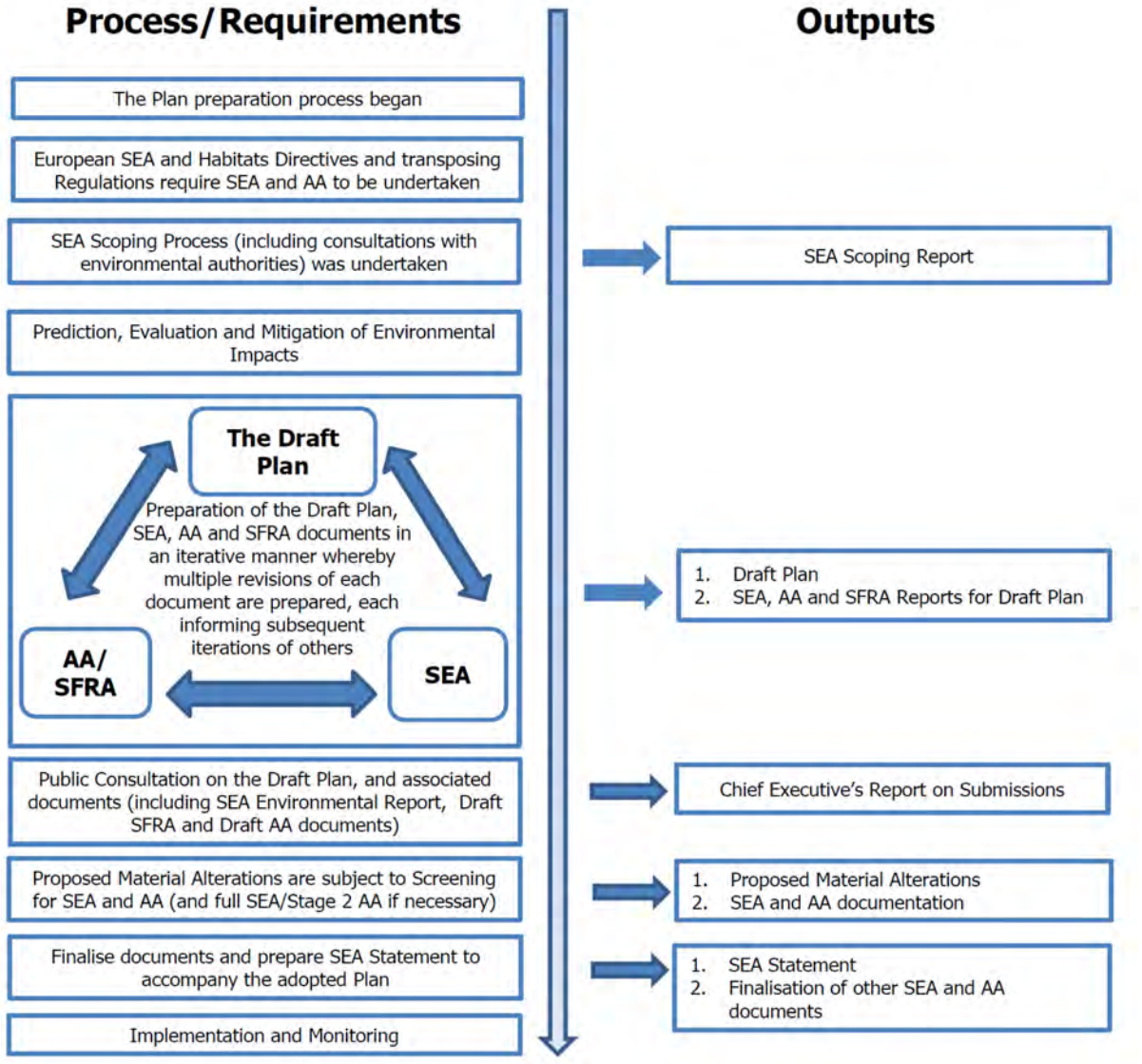


Figure 3.1 Overview of the SEA/AA/SFRA Plan-preparation Processes

3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

3.2.1 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA has been undertaken alongside the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The conclusion of the AA is that the Plan will not affect the integrity of the European Sites, alone or in combination with other plans or projects.[3]

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed the SEA.

3.2.2 Integrated Biodiversity Impact Assessment

Many elements of Integrated Biodiversity Impact Assessment as detailed in the EPA's (2013) Practitioner's Manual have been aligned with in the undertaking of the SEA for the Plan. These include:

Scoping

- Biodiversity-relevant issues were identified for consideration at scoping stage and these are now detailed in Section 4.
- Reference to a zone of influence is provided at Section 4.

Baseline

- Biodiversity data sources relevant for this local level assessment have been identified and datasets collated/gathered.
- The biodiversity baseline addresses designated sites and other habitats and species of ecological value.
- AA information has been incorporated into the SEA baseline.

Alternatives

- Impacts upon biodiversity are considered under each of the alternatives and potential conflicts can be mitigated.

Impact assessment

- Effects on biodiversity are identified and assessed and the AA considers the interrelationship between biodiversity and potential effects on European Sites.

Mitigation and monitoring

- Taking into account all measures contained within the Plan, all the proposed mitigation measures deriving from the various processes were generally consistent and compatible.
- Indicators and associated targets have been included in SEA for monitoring European Sites.

Reporting

- This SEA ER addresses all biodiversity-related considerations relevant for this level of assessment.
- This SEA ER contains all biodiversity-relevant information, data, figures and maps relevant for this level of assessment.
- This SEA ER has been informed by the AA findings.

Communication and consultation

- Submissions received have been taken on board.
- The preparation of the Plan, SEA and AA have taken place concurrently and the findings of the AA have informed the SEA.

3.3 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. Recommendations from the SFRA have been integrated into the Plan.

3.4 Scoping

The scope of environmental issues to be dealt with by the SEA of the Plan together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components that are specified under the SEA Directive[4].

[3] Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

[4] These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

All relevant environmental authorities identified under the SEA Regulations as amended, were sent SEA scoping notices by the Council indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to the Council[5].

Submissions made by the Environmental Protection Agency, the Department of Communications, Climate Action and Environment and the Department of Culture, Heritage and the Gaeltacht influenced the scope of the assessment undertaken, the findings of which are included in this report.

3.5 Alternatives

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. In accordance with this requirement, alternatives for the Plan are identified and assessed in Sections 6 and 7.

3.6 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects.

However, a number of alterations were adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan, including those which are identified on Table 3.1 and were advised against by the Plan-preparation/SEA process. Also included on Table 3.1 is advice that was provided by the SEA for consideration in advance of adoption of the Plan.

[5] The following authorities were notified (the names of some of the authorities have changed since notification was provided as a result of changes in Ministerial responsibilities across Departments): Department of Agriculture, Food and the Marine; Department of Culture, Heritage, and the Gaeltacht; Department of Communications, Climate Action and Environment; Department of Housing, Planning and Local Government; Environmental Protection Agency; Cork County Council; Tipperary County Council; Kilkenny County Council; and Wexford County Council.

Table 3.1 Alterations Advised Against but Adopted (including:)

Material Alterations No's.	Commentary provided in advance of Plan Adoption	Mitigation Identified	Recommendation provided in advance of Plan Adoption
205, 211, 225, 284 and 305	Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. These alterations would not be consistent with established population targets and/or the proper planning and sustainable development of the County. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, biodiversity, air and climatic factors and material assets. For alterations relating to zoning, much of the zoning proposed is considered to be premature in the context of current population targets. Potentially significant adverse unnecessary effects, would be likely to include: • Effects on non-designated habitats and species • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces • Increased loadings on water bodies • Conflict with efforts to maximise sustainable compact growth and sustainable mobility • Occurrence of adverse visual impacts Where such alterations are further from the centre of settlements, potentially significant unnecessary adverse effects would be likely to include: • Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of settlements (At An Rinn, in particular, the Council have identified major network capacity issues and that pump station and network upgrades are required to deal with current loading) • Adverse impacts upon the economic viability of providing for public assets and infrastructure • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives • Conflicts between transport emissions, including those from cars, and air quality • Conflicts between increased frequency of noise emissions and protection of sensitive receptors • Potential effects on human health as a result of potential interactions with environmental vectors	• Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. • Protect the environment and contribute towards sustainable development.	Do not adopt as part of Draft Plan

3.7 Environmental Report

This SEA Environmental Report predicts and evaluates the likely significant effects of the Plan and the alternatives.

The Environmental Report provides Waterford City and County Council, stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the Plan.

Mitigation measures to prevent or reduce significant adverse effects posed by the Plan are identified in Section 9 – these have been integrated into the Plan.

An earlier version of this report was report was updated in order to take account of relevant recommendations contained in submissions and in order to take account of changes that were made to the original, Draft Plan that was placed on public display.

The Environmental Report is required to contain the information specified in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004), as amended (see Table 3.1).

No significant difficulties have been encountered during the undertaking of the assessment.

There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term “unassigned status” applies in respect of these waterbodies. The SEA ensured that the Plan contains measures that will contribute towards the maintenance and improvement of status of all water bodies within the zone of influence.

There is uncertainty about water services capacity and demand at certain plants in the County. The SEA ensured that the Plan contains measures that will help to ensure that new development is served by adequate and appropriate water services.

3.8 SEA Statement

On finalisation of the Plan, an SEA Statement is prepared that includes information on:

- How environmental considerations have been integrated into the Plan, highlighting the main changes to the Plan that resulted from the SEA process;
- How the SEA Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;
- The reasons for choosing the Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Plan as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing of the Plan.

Table 3.2 Checklist of Information included in this Environmental Report

Information Required to be included in the Environmental Report	Corresponding Section of this Report
(A) Outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes	Sections 2, 5 and 8
(B) Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the plan or programme	Section 4 and Appendices II and III
(C) Description of the environmental characteristics of areas likely to be significantly affected	Sections 4, 7 and 8
(D) Identification of any existing environmental problems which are relevant to the plan or programme, particularly those relating to European protected sites	Section 4
(E) List of environmental protection objectives, established at international, EU or National level, which are relevant to the plan or programme and describe how those objectives and any environmental considerations have been taken into account when preparing the Plan	Sections 5, 7, 8, 9 and Appendix I
(F) Describe the likely significant effects on the environment	Sections 7 and 8
(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan or programme	Section 9
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)	Sections 3, 6, 7 and 8
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Appendix IV Non-Technical Summary
(K) Interrelationships between each environmental topic	Addressed as it arises within each Section

Section 4 Environmental Baseline

4.1 Introduction

Reflecting the specifications in the SEA Directive, the relevant aspects of the current state of the environment for the following environmental components are described in this section: biodiversity and flora and fauna, population and human health, soil, water, air and climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

This description includes information that is relevant to lower tier planning, environmental assessments and decision-making[6].

Given the potential for impacts beyond the City and County boundary, the spatial scope of the SEA takes into account the zone of influence (15km or greater where relevant) of the Plan.

4.2 National Reporting on the Environment

The EPA's *"Ireland's Environment – An Assessment 2020"* report provides an integrated assessment of the overall quality of Ireland's environment, the pressures being placed on it and the societal responses to current and emerging environmental issues. This report has informed various parts of the environmental baseline provided below. The key environmental challenges or messages identified by the report are:

Environmental Policy Position
A national policy position for Ireland's Environment.

Full implementation
Full implementation of existing environmental legislation and a review of the governance around the coordination on environmental protection across public bodies.

Health and Wellbeing
Protecting the Environment is an Investment in Our Health and Wellbeing.

Climate
Systemic change is required for Ireland to become the climate-neutral and climate resilient society and economy that it aspires to be.

Air Quality
Adoption of measures to meet the World Health Organization air quality guideline values should be the target to aim for in the Clean Air Strategy.

Nature
Safeguard nature and wild places as a national priority and to leave a legacy for future generations.

Water Quality
Improve the water environment and tackle water pollution locally at a water catchment level.

Marine
Reduce the human-induced pressures on the marine environment.

Clean Energy
Ireland needs to move rapidly away from the extensive use of fossil fuels to the use of clean energy systems.

Environmentally Sustainable Agriculture
An agriculture and food sector that demonstrates validated performance around producing food with a low environmental footprint.

Water Services
Drinking water and wastewater infrastructure must meet the needs of our society.

Circular Economy
Move to a less wasteful and circular economy where the priority is waste prevention, reuse, repair and recycling.

Land Use
Promote integrated land-mapping approaches to support decision-making on sustainable land use.

The report highlights that high-quality green and blue spaces are not just for nature but are for peoples' health and wellbeing, particularly in the context of an increasingly urban society and increasing settlement densities.

[6] Article 5 of the SEA Directive, in accordance with the established European principle of subsidiarity, requires that the Environmental Report includes the information that may reasonably be required taking into account, inter alia, the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

4.3 Sustainable Development Goals

Implementation of the Plan will contribute towards efforts to achieve a number of the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development, which were adopted by world leaders in 2015 at a United Nations Summit and came into force in 2016. These Goals include:

- Goal 3. Ensure healthy lives and promote well-being for all at all ages.
- Goal 6. Ensure availability and sustainable management of water and sanitation for all.
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.
- Goal 12. Ensure sustainable consumption and production patterns.
- Goal 13. Take urgent action to combat climate change and its impacts.
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

4.4 Likely Evolution of the Environment in the Absence of a new Plan

In the absence of a new Plan it is uncertain how permission for new development would be applied for and considered.

The current City and County Plans have contributed towards environmental protection within Waterford City and County. If the current City and County Plans were to expire and not be replaced by a new Plan, this would result in a deterioration of the City and County's planning and environmental protection framework. Although higher level environmental protection objectives – such as those of various EU Directives and transposing Irish Regulations – would still apply, the deterioration of this framework would mean that new development would be less coordinated and controlled.

As a result, there would be a decreased likelihood in the extent, magnitude and frequency of positive effects occurring, including:

- Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.
- Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats.
- Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna.
- Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.
- Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management.
- Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond.
- Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.
- Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.
- Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the City and County

settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.

- Contribution towards the protection of the environment from contamination the highest standards of remediation, and where appropriate to consultations with the EPA and other relevant bodies, will be required to resolve any instances of environmental pollution created by contaminated land.
- Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.
- Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations.
- Contribution towards flood risk management and appropriate drainage.
- Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond.
- Contribution towards compliance with national and regional water services and waste management policies.
- Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments.
- Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.
- Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.
- Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond.
- In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to:
    - Sustainable compact growth;
    - Sustainable mobility, including walking, cycling and public transport;
    - Drainage, flood risk management and resilience;
    - Sectors including agriculture, forestry, energy and buildings; and
    - Sustainable design, energy efficiency and green infrastructure.
- Contributes towards protection of cultural heritage elsewhere in the City and County by facilitating development within existing settlements.
- Contributes towards protection of cultural heritage within existing settlements by facilitating brownfield development and regeneration.
- Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.

In addition, as a result, there would be an increased likelihood in the extent, magnitude and frequency of adverse effects on all environmental components occurring, including:

- Arising from both construction and operation of development and associated infrastructure:
    - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;
    - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and
    - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.
- Potential interactions if effects arising from environmental vectors.
- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.
- Potential for riverbank and coastal erosion.
- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.
- Increase in flood risk and associated effects associated with flood events.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Increases in waste levels.
- Potential impacts upon public assets and infrastructure.
- Interactions between agriculture and soil, water, biodiversity and human health – including phosphorous and nitrogen deposition as a result

of agricultural activities and the production of secondary inorganic particulate matter.
- Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

4.5 Natural Capital and Ecosystem Services

Waterford City and County's **natural capital** comprises its renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of ecosystem services that provide benefits to people. These benefits can include clean air and water, a stable climate, protection from floods, food, resources for fuel, building materials, clothes and medicines, recreation. Managing natural capital so that it can continue to deliver the ecosystem services that give us these benefits is important in order to ensure sustainable development. Unmanaged natural capital risks the continued degradation and depletion of these assets, and in turn, of their capacity to provide the economy and society with the ecosystem benefits that they depend on. These services also regulate climate, regulate water flows (e.g. through wetlands and forests), sequester and store carbon in peatlands and improve soil quality for crops.

Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing. There are four main types; provisioning, regulating, supporting and cultural services. Provisioning services are the products obtained from ecosystems such as food, fresh water, wood, fibre, genetic resources and medicines. Regulating services are defined as the benefits obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination or pest control. Support services highlight the importance of ecosystems to provide habitat for migratory species and to maintain the viability of gene-pools. Cultural services include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values[7].

In preparing the Plan and developing policy objectives, the Council have followed these ecosystem services approach principles:

a) Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function (including at Plan Chapters 9 and 10);
b) Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation (including at Plan Chapter 9), resources for food, fibre or fuel (including at Plan Chapter 4), or for recreation, culture and quality of life (including at Plan Chapters 11);
c) Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them. Public consultation has informed the preparation of the Plan which was further refined before adoption, taking into account submissions/observations made on the Draft Plan during public display.

The following natural capital and ecosystem services issues are relevant to this SEA and have been taken into account in the provisions of the Plan:

- Air quality;
- Noise pollution;
- Light pollution;
- Water quality and river basin management including interactions with soil;
- Soil and vegetation carbon, which helps to regulate greenhouse gas emissions;
- Soil/geological storage of water, contributing towards flood control;
- Land supporting food production; and
- Natural resources supporting energy production and recreation.

4.6 Biodiversity and Flora and Fauna

4.6.1 Introduction

Information on biodiversity and flora and fauna that is relevant to project planning and

[7] https://biodiversity.europa.eu/topics/ecosystem-services

development and associated environmental assessment and administrative consent of projects includes that on designated ecological sites and protected species, ecological connectivity (including stepping stones and corridors) and non-designated habitats.

4.6.2 Overview of High Value Biodiversity and Designations

The most ecologically sensitive and heavily designated and protected areas within County Waterford include upland areas (including peat bogs) and coastal areas (including intertidal flats, islands, sand and dunes). Coastal waters and various rivers and lakes provide habitats for sensitive species. Dispersed areas of marginal agricultural lands that may include ecological sensitivities occur throughout the County's lowlands and foothills.

A network of green spaces, including gardens, parks, graveyards, amenity walks, railway lines and patches of woodland and scrub, provide habitats and ecological connectivity within the County and beyond.

Ecological designations in County Waterford include:

- Special Protection Areas[8];
- Special Areas of Conservation[9];
- Proposed Natural Heritage Areas[10];
- Certain entries to the Water Framework Directive Register of Protected Areas[11];
- Salmonid Rivers identified by Regulations (S.I. 293 only)[12];
- Freshwater Pearl Mussel Catchments[13];
- Shellfish Areas[14];
- Wildfowl Sanctuaries[15];
- OSPAR Sites[16];
- Ramsar Sites[17];
- Flora Protection Order sites[18];
- Tree Preservation Orders[19]; and
- UNESCO Global Geopark[20].

The zone of influence of the Plan beyond the County area with respect to impacts upon ecology via surface waters upon ecological resources – including designated ecology – can be estimated to be areas within 15 km of the County boundary and all downstream areas of catchments which drain the County.

4.6.3 European Sites

European sites in the County occur in the greatest concentrations along the coastline and in upland areas. European sites comprise:

- Special Areas of Conservation[21] (SACs); and
- Special Protection Areas[22] (SPAs).

The SEA uses the same general zone of influence cited in the AA, a 15 km buffer around the County. There are 24 European sites (14 SACs and 10 SPAs) designated within this zone (mapped on Figure 4.1) out of which 15 European sites (9 SACs and 6 SPAs) are designated within or partially within the County.

All relevant European sites[23] shown on Figure 4.1 and their sensitive features are listed in the

[8] For more detail refer to Section 4.6.3.
[9] For more detail refer to Section 4.6.3.
[10] For more detail refer to Section 4.6.4.
[11] For more detail refer to Sections 4.6.6 and 4.9.7.
[12] For more detail refer to Section 4.6.7.
[13] For more detail refer to Section 4.6.8.
[14] For more detail refer to Section 4.6.6.
[15] Areas that have been excluded from the 'Open Season Order' so that game birds can rest and feed undisturbed. **There are two Wildfowl Sanctuaries within or partially within the Plan area: Coolfin Marshes (WFS-50); and River Blackwater (WFS-51).**
[16] Under the OSPAR Convention to Protect the Marine Environment of the North East Atlantic, Ireland committed to establishing marine protected areas to protect biodiversity (OSPAR MPAs). There are currently 19 OSPAR MPAs in Ireland, which established a number of its SACs as OSPAR MPAs for marine habitats. **There is one OSPAR Site designated adjacent to the Plan area: Tramore Dunes and Backstrand MPA (O-IE-0002974).**
[17] For more detail refer to Section 4.6.8.
[18] The Flora (Protection) Order, 2015 (S.I. No. 356 of 2015) gives legal protection to 65 species of bryophytes in the Republic of Ireland (25 liverworts and 40 mosses). There are 15 locations within the Plan area with a number of species protected by the Order, including: Tallowbridge (*Orthotrichum sprucei*); Ballynerroon East (*Orthotrichum sprucei*); Knocklofty Bridge (Leptodon smithii); Dromore-Lismore (*Orthotrichum sprucei*); Dungarvan (*Scleropodium touretii*); Deelish (*Fissidens rufulus*); Coumtay (*Hamatocaulis vernicosus*); Coumfea (*Barbilophozia atlantica*); Sgilloge Loughs (*Hamatocaulis vernicosus*).
[19] Tree Preservation Orders (TPOs) have been made for certain trees, groups of trees and woodlands and are identified in the County Development Plan. **The Tree Register of Ireland maintains a register of champion trees and lists over 270 champion trees for County Waterford by virtue of their age, height and girth.**
[20] For more details refer to Section 4.12.1.
[21] SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The Regulations have been prepared to address several judgments of the Court of Justice of the European Union against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.
[22] SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.
[23] Including sites relevant to Waterford City.

Appendix II of this report. European sites partially within or adjacent to Waterford City are mapped on Map 1 in Appendix III. For more detail on European sites please refer to the AA Natura Impact Report that accompanies the Plan and this SEA Environmental Report.

4.6.4 Proposed Natural Heritage Areas

Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000.

There are 31 pNHAs designated within, partially within or adjacent to the County. These sites are mapped[24] on Figure 4.2 and listed in Appendix II of this report. Relevant pNHAs located partially within or adjacent to Waterford City are also mapped on Map 1 in Appendix III.

4.6.5 Land Cover Mapping

CORINE[25] land cover mapping for the County is shown on Figure 4.3. The most dominant land cover type throughout the County is pastures. Concentrations of peat bogs occur mainly in the north-west and central parts of the County. CORINE land cover for Waterford City is also mapped on Map 2 in Appendix III.

Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats within the County (mapped on Figure 4.6) and Waterford City (mapped on Map 3 in Appendix III) include:

- Non-irrigated arable land;
- Fruit trees and berry plantations;
- Pastures;
- Complex cultivation patterns;
- Land principally occupied by agriculture with significant areas of natural vegetation;
- Broad-leaved forest;
- Coniferous forest;
- Mixed forests;
- Natural grassland;
- Moors and heathland;
- Transitional woodland-shrub;
- Beaches-dunes-sands;
- Sparsely vegetated areas;
- Inland marshes;
- Peat bogs;
- Salt marshes;
- Intertidal flats;
- Water courses;
- Water bodies;
- Coastal lagoons;
- Estuaries; and
- Sea and ocean.

4.6.6 Register of Protected Areas

In response to the requirements of the Water Framework Directive a number of water bodies or parts of water bodies that must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Registers of Protected Areas (RPAs). Water bodies designated on these lists (mapped on Figure 4.4 and Figure 4.5) include:

- Shellfish waters[26] (including rivers, coastal and transitional waters and intersecting surface and groundwaters); and
- Surface waters listed on the European Communities (Quality of Salmonid) Regulations 1988 (S.I. 293) and intersecting surface and groundwaters.

RPAs relating to Nutrient Sensitive Waters, Bathing Waters and water bodies used for Drinking Water are addressed under Section 4.9 "Water". There are also a number of water dependent habitats in the County, which have been listed on the Register – these relate to designated SACs and SPAs (see Section 4.6.3). RPAs relating to Waterford City are also mapped in Appendix III (Map 8, Map 9 and Map 10).

[24] Sites in neighboring counties are also shown on Figure 4.2.

[25] The CORINE (Coordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. Peatlands and wetlands are the second most widespread land cover type, covering almost one-fifth of the country. While forested areas cover about one-tenth of the country. Despite rapid development in the past two decades, Ireland's landscape is predominantly rural and agricultural.

[26] In order to protect existing shellfish waters and to ensure the future protection of these areas, the European Union introduced the Shellfish Waters Directive (2006/113/EC). The purpose of this Directive is to put in place concrete measures to protect waters, including shellfish waters, against pollution and to safeguard certain shellfish populations from various harmful consequences, resulting from the discharge of pollutant substances into the sea. The Directive applies to the aquatic habitat of bivalve and gastropod molluscs only (includes oysters, mussels, cockles, scallops and clams). It does not include crustaceans such as lobsters, crabs and crayfish.

4.6.7 Salmonid Waters

The Salmonid Regulations (S.I. 293/1988) designate the waters capable of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*) as protected. 34 (no.) rivers, tributaries and lakes are listed and protected under these Regulations that prescribe quality standards for salmonid waters, the sampling programmes and the methods of analysis and inspection to be used by local authorities to determine compliance with the standards. Sections of the Rivers Blackwater and Bride are listed under the Regulations.

4.6.8 Other Designations

Other designations within County Waterford[27] (mapped on Figure 4.6 and Figure 4.7) include Margaritifera Sensitive Areas, Nature Reserves and Ramsar sites.

Freshwater pearl mussel is a globally threatened, long-lived and extremely sensitive species that can be impacted by many forms of pollution, particularly sediment and nutrient pollution and by hydrological and morphological changes, which may arise from developments, activities or changes in any part of the catchment. There are two species of freshwater pearl mussel in Ireland (*Margaritifera* and *Margaritifera durrovensis*) and both are protected under Annex II and Annex V of the EU Habitats Directive. In County Waterford, the Margaritifera Sensitive Areas are found within the following river catchments (mapped on Figure 4.7)[28]:

- Munster Blackwater – Licky (catchments of SAC populations listed in S.I. 296 of 2009);
- Munster Blackwater (catchments of SAC populations listed in S.I. 296 of 2009);
- Suir (previous record Margaritifera, current status unknown);
- Suir - Clodiagh Waterford (catchments of SAC populations listed in S.I. 296 of 2009);
- Tay (catchments of other extant populations); and
- Mahon (catchments of other extant populations).

Nature Reserves (mapped on Figure 4.6) are areas of importance to wildlife, protected under Ministerial order. There are currently 78 Statutory Nature Reserves in Ireland. Most are owned by the State but some are owned by organisations or private landowners. There are two Nature Reserves designated within or partially within the County: Fenor Bog (in the east of the County); and Fiddown Island (in the north-east of the County).

Ramsar sites (mapped on Figure 4.6) are wetlands designated to be of international importance under the Convention of Wetlands of International Importance (especially as Water Fowl Habitat), established at Ramsar in 1971 and ratified by Ireland in 1984. The main aim of the Convention is to secure the designation by each contracting state of wetlands in its territory for inclusion in a list of wetlands of international importance for waterfowl. This entails the commitment of each contracting state to a policy of protection and management of the designated wetlands, and of formulating and implementing planning so as to promote the conservation of designated wetlands and, as far as possible, the wise use of wetlands in its territory. Ireland presently has 45 sites designated as Wetlands of International Importance, with surface areas of 66,994 hectares. There are three Ramsar sites designated within the County including: Blackwater Estuary (in the south-west of the County); Dungarvan Harbour (in the south of the County); and Tramore Backstrand (in the east of the County).

4.6.9 Other Sites of Ecological Importance

Within and surrounding the County (including Waterford City) ecological networks are made up of components including lakes, wetlands, woodlands, trees and hedgerows. These components provide habitats for flora and fauna and facilitate linkages to the surrounding countryside.

Hedgerows are valuable resource in the countryside, benefiting agriculture, wildlife, the environment, tourism, and the general community. The network of hedges across the country provides links between surviving fragments of other wildlife habitats, thereby allowing the movement and dispersal of species through otherwise hostile agricultural landscapes.

Surveys of Waterford's Wetlands were carried out in 2006 , 2015 and 2021 and recoded 90

[27] Other designation in neighbouring counties are also shown on the Figure 4.6.

[28] Margaritifera Sensitive Areas within and adjacent to Waterford City are also mapped on Map 3 in Appendix III.

wetlands of local biodiversity interest. Wetland areas in County Waterford include a range of high biodiversity value habitats, such as: reed swamp; wet woodland; marsh; lake; reservoir; fen; bog; wet heath; wet grassland; streams; and ditches. Wetland areas, including areas designated for nature conservation and undesignated sites, are likely to support habitats and species of conservation importance and should be given consideration in future development plans adopted by the County.

Peatlands are unique systems comprising of peat soil providing as significant carbon stores and supporting a range of unique species. Most of the peatlands found in County Waterford are mountain blanket bogs. The best developed areas of this type of habitat occur around the Comeragh Mountains. Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Cutover bog is a variable habitat, or complex of habitats, that can include mosaics of bare peat and re-vegetated areas with woodland, scrub, heath, fen and flush or grassland communities. It occurs where part or all of the original peat has been removed through turf cutting, by the traditional hand method or mechanically, for either domestic or commercial purposes. This habitat is widespread in Ireland surrounding industrially and traditionally cutover raised bogs.

4.6.10 Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Categories for pressures and threats on Ireland's habitats and species identified by the report comprise:

- Agriculture;
- Forestry;
- Extraction of resources (minerals, peat, non-renewable energy resources);
- Energy production processes and related infrastructure development;
- Development and operation of transport systems;
- Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas;
- Extraction and cultivation of biological living resources (other than agriculture and forestry);
- Military action, public safety measures, and other human intrusions;
- Alien and problematic species;
- Mixed source pollution;
- Human-induced changes in water regimes;
- Natural processes (excluding catastrophes and processes induced by human activity or climate change);
- Geological events, natural catastrophes;
- Climate change; and
- Unknown pressures, no pressures and pressures from outside the Member State.

Ireland's Article 12 Birds Directive Reports and the 6th National Report under the Convention of Biological Diversity identify similar issues.

The Plan includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services.

Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

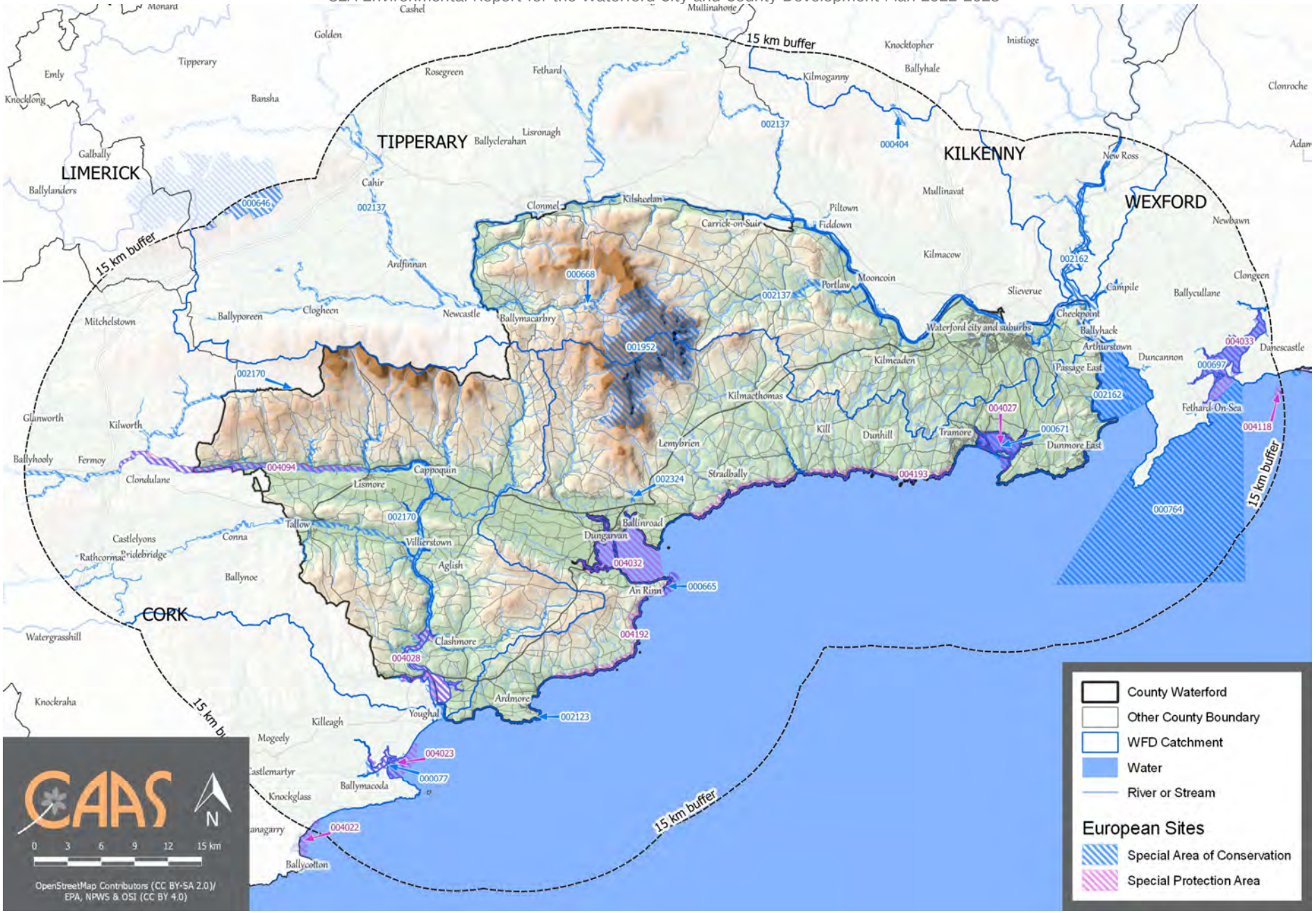


Figure 4.1 European sites within and within 15 km of the County

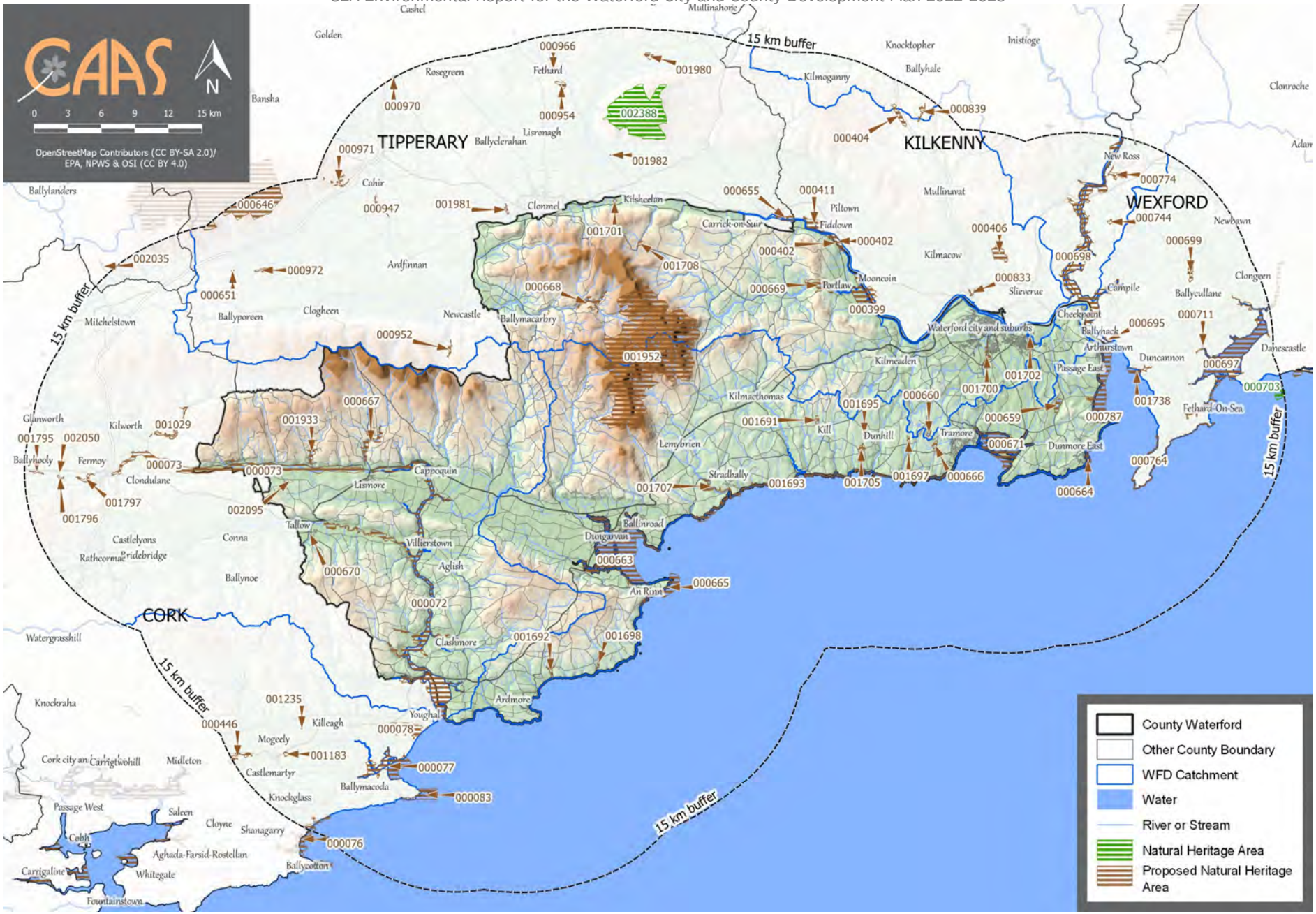


Figure 4.2 Proposed Natural Heritage Areas within and within 15 km of the County

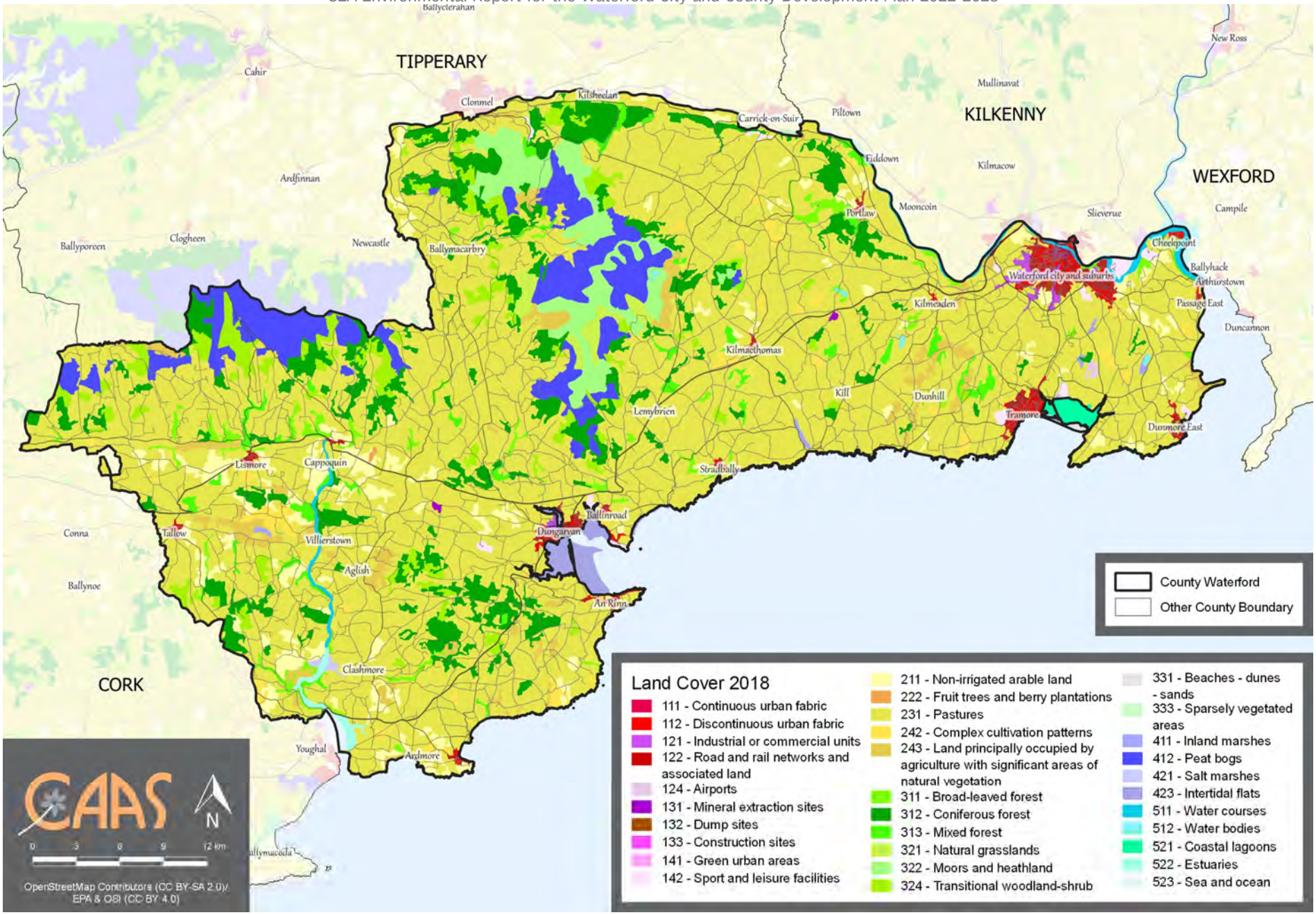


Figure 4.3 CORINE Land Cover 2018

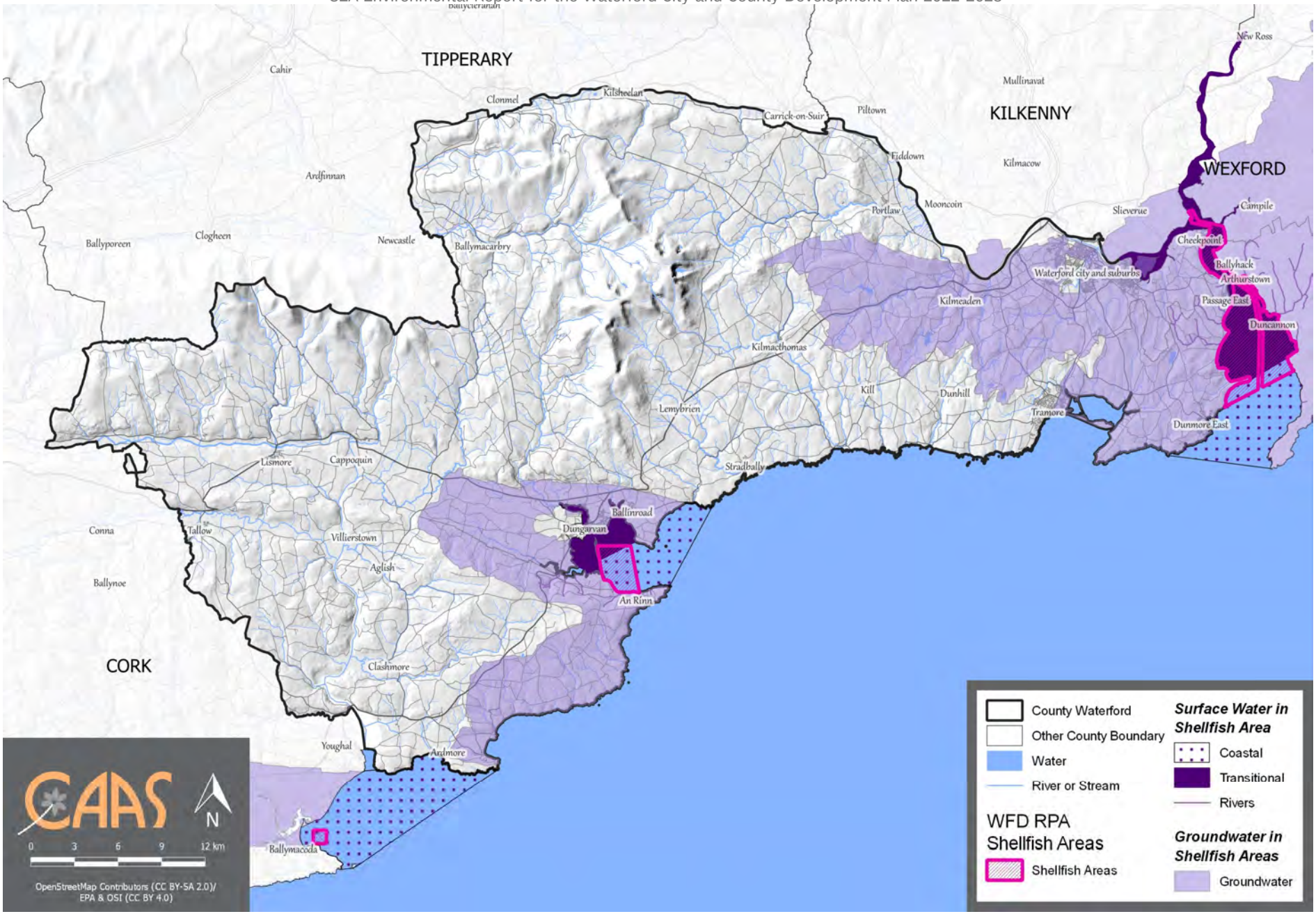


Figure 4.4 WFD Register of Protected Areas Shellfish Areas

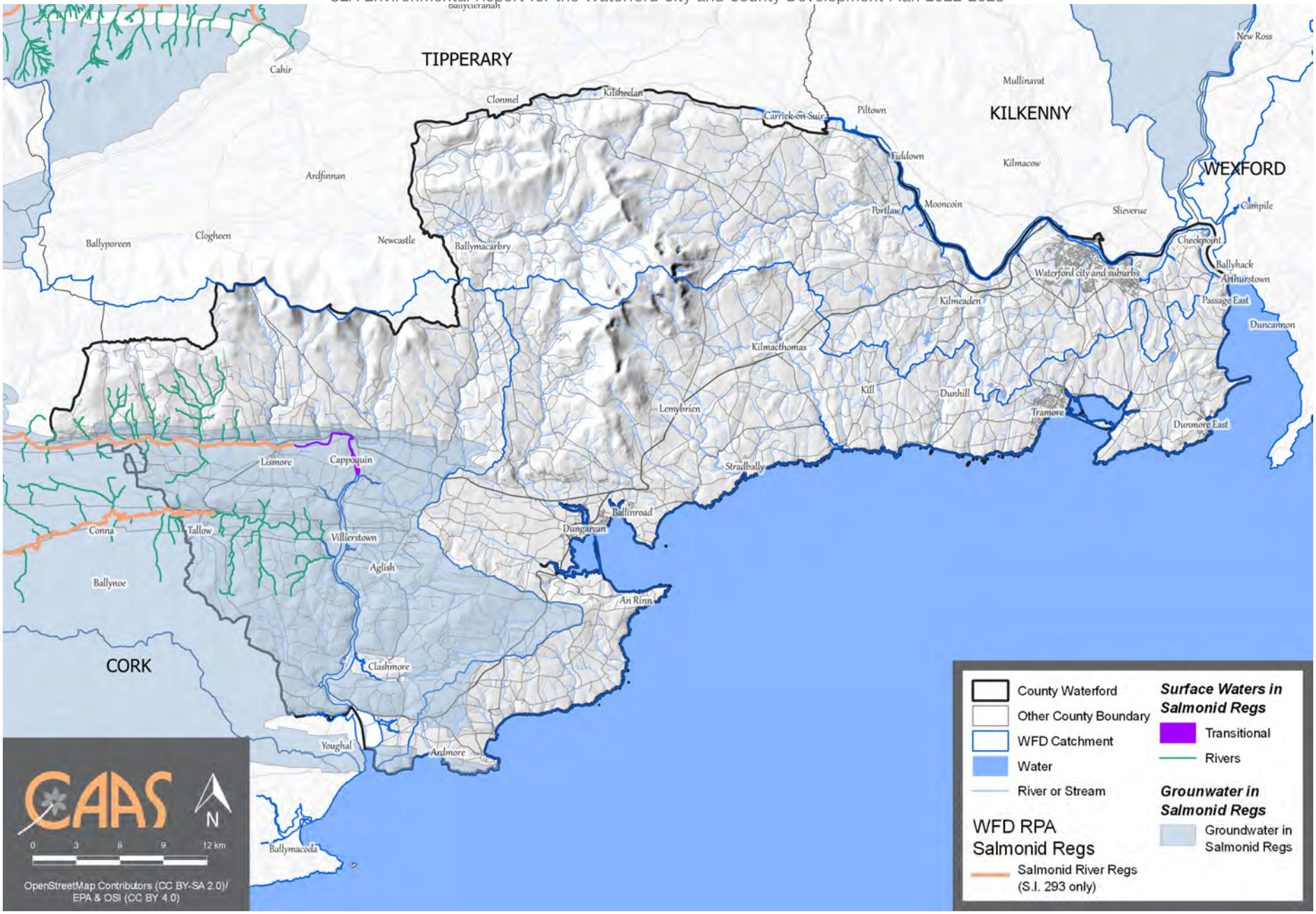


Figure 4.5 WFD Register of Protected Areas Salmonid Waters

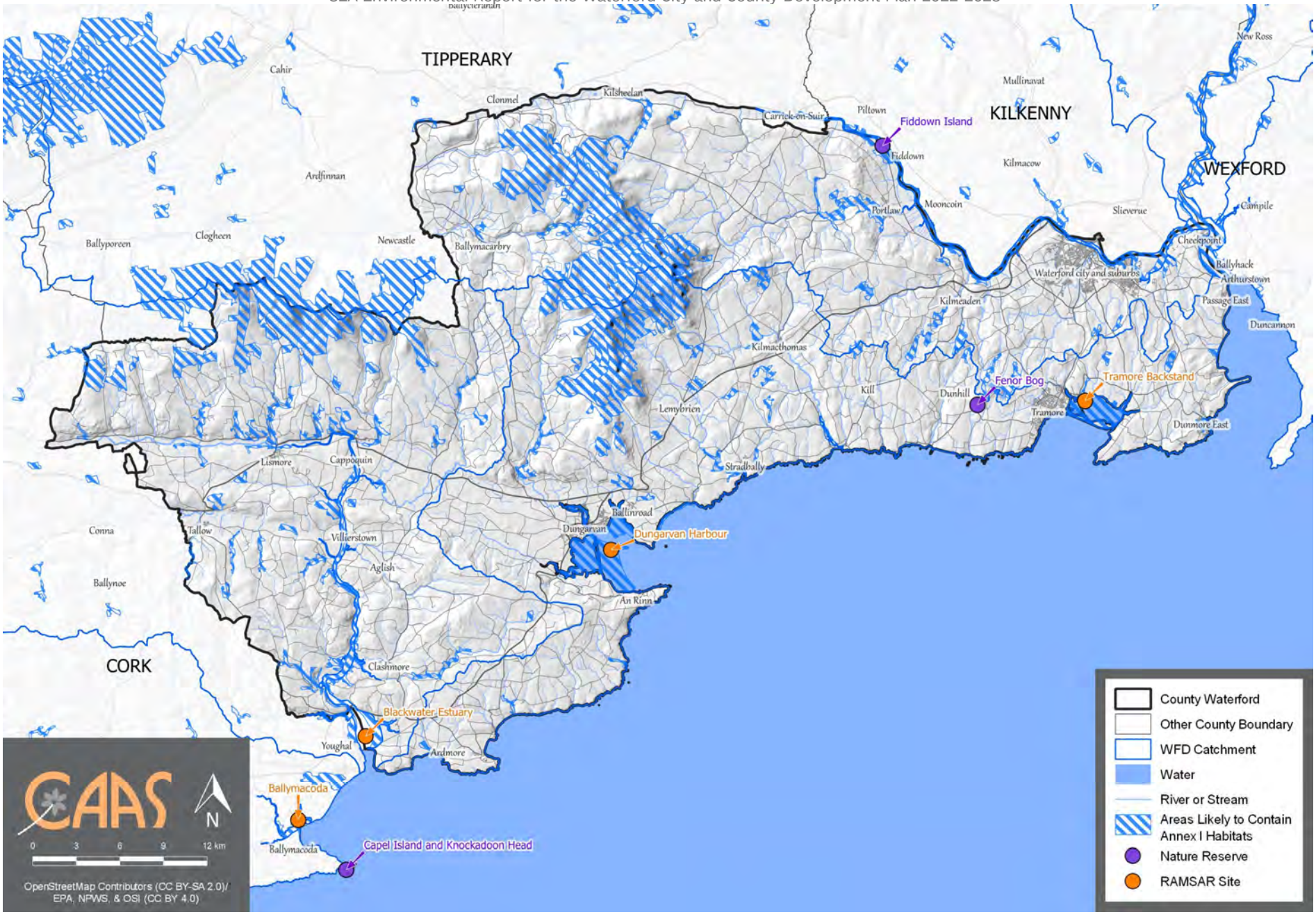


Figure 4.6 Other Ecological Designations

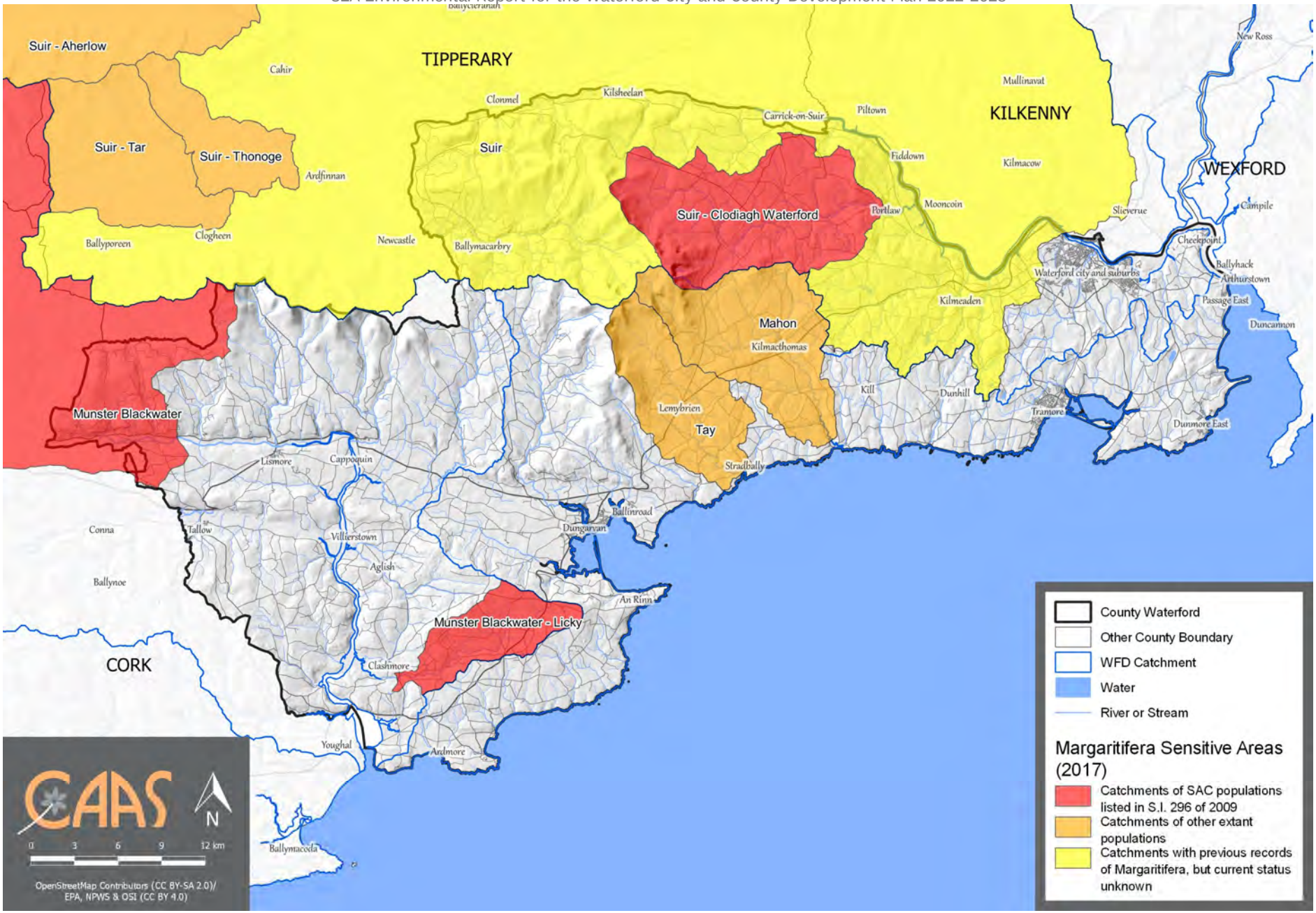


Figure 4.7 Margaritifera Sensitive Areas

4.7 Population and Human Health

4.7.1 Population

In the 2016 Census the total population of Waterford City and County was identified as being of 116,176 persons, an increase in total population in the County by c. 2% (c. 2,381 persons) since the previous census. The population growth targets for the County for 2028 and 2031 are 137,630 persons and 144,000 persons respectively.

In the 2016 Census the total population of Waterford City (within the total city area, including Waterford City, Suburbs and Rural) was identified as being 51,615 persons. Waterford Metropolitan Area is identified by Southern Regional Assembly Regional Spatial and Economic Strategy (RSES) as the principal urban centre of the South-East and a Regional City of Scale. The Waterford Metropolitan Area Strategic Plan (MASP) provides a high-level strategic framework for the sustainable development of the Waterford Metropolitan Area. Dungarvan is identified as a Key Town by the Southern RSES for its strategic location and diverse employment sectors.

The Plan designates a hierarchy of the County's settlements as follows:

- City - Metropolitan Area (Waterford City);
- Key Town (Dungarvan, including Ballinroad, Clonmel Environs)
- Large Urban Town (Tramore);
- Urban Town (Dunmore East, Portlaw and Lismore);
- Large Urban Towns (Ardmore, Cappoquin, Gaeltacht na nDéise (including Old Parish), Kilmacthomas, Passage East/Crooke, Stradbally, Tallow);
- Rural Villages (Aglish, Ballyduff Upper, Ballymacarbry, Bonmahon/Knockmahon, Cheekpoint, Clashmore, Conea Power, Dunhill, Kill, Kilmeaden/Ballyduff, Lemybrien/Kilrossanty, Rathgormuck, Touraneena, Villierstown); and
- Rural Nodes (Annestown, Ballylaneen, Ballymacaw, Butlerstown, Faithlegg, Fenor, Grange, Kilbrien, Knockanore, Mellary, Modeligo, Piltown, Whitechurch).

The new population provided for by the Plan will interact with various environmental components.

Potential interactions include:

- Increase in demand for wastewater treatment at the municipal level;
- Recreational and development pressure on habitats and landscapes;
- Increase in demand for water supply and associated potential impact of water abstraction from the rivers;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

4.7.2 Human Health

Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan.

4.7.3 Existing Problems

There is historic and predictive evidence of flooding in various locations across the County (see information on Strategic Flood Risk Assessment at Section 4.9.9).

The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. It accounts for more than half of the total radiation dose received by the Irish population. As a known carcinogen, in the same category as tobacco smoke and asbestos it is a cause of lung cancer. Exposure to radon for long periods or at high concentrations can lead to lung cancer. The number of homes within the County with radon levels above the reference level is within the normal range experienced in other locations across the country[29].

[29] Mapping available at http://www.epa.ie/radiation/radonmap

Information on the status of groundwaters and surface waters is provided under Section 4.9 while compliance issues in relation to water services are detailed under Section 4.11.10.

4.8 Soil

Soil is the top layer of the earth's crust. It is formed by mineral particles, organic matter, water, air and living organisms. Soil can be considered as a non-renewable natural resource because it develops over very long timescales. It is a complex, variable and living medium and performs many vital functions including: food and other biomass production, storage, filtration and transformation of many substances including water, carbon, and nitrogen. Soil has a role as a habitat and gene pool, serves as a platform for human activities, landscape and heritage and acts as a provider of raw materials. Such functions of soil are worthy of protection because of their socio-economic and environmental importance. Soils in any area are the result of the interaction of various factors, such as parent material, climate, vegetation and human action.

To date, there is no legislation which is specific to the protection of soil resources. Although a proposal for a Soil Framework Directive was withdrawn in 2014, the importance of sustainable soil management was recognised in the Seventh Environment Action Programme.

Brown earths[30] (occupying north-east, east, south and south-west of the County) are the most dominant soil type in the County (shown on Figure 4.8). Soil types within Waterford City are also mapped on Map 4 in Appendix III.

Peatlands are unique systems comprising of peat soil providing as significant carbon stores and supporting a range of unique species. Two types of peat are present in the County: basin peats[31] and blanket peats. The most predominant are blanket peat bog areas, which can be found mainly on uplands in the west of the County. Basin peats (raised bogs and fens) are mostly found in the east of the County. Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues. The peatland areas along the uplands of the County are subject to various ecological designations (see Section 4.6).

Other soil types identified include:

- Alluvial soils[32] (in the flood plains of rivers and streams);
- Brown podzols[33] (mainly in the west and north-west of the County);
- Podzols[34] (mainly in the centre, north, north-west and south of the County);
- Surface water gleys[35] (mainly in the north-west of the County);
- Groundwater gleys (mainly in the south of the County);
- Luvisols[36] (mainly in the north and north-east of the County); and
- Plaggen soils[37] (occupying relatively small areas near the coast in the south-west of the County).

Outcropping rock is identified in a number of upland locations.

The GSI (Geological Survey of Ireland) have a suite of data sources available that would be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

4.8.1 Geological Sites

Geological Survey of Ireland coordinates the Irish Geological Heritage Programme, which seeks to identify and select sites of geological interest within each county across the country. The audit of County Geological Sites in County Waterford (completed in 2012) identified 55

[30] Brown earths are well drained mineral soils, associated with high levels of natural fertility.
[31] Basin or fen peats (raised bogs and fens) are formed in lake basins, hollows and river valleys, and blanket peats that accumulate under conditions of high rainfall and humidity in the uplands, which is generally suited to extensive rough grazing.
[32] These are associated with alluvial (clay, silt or sand) river deposits.
[33] Brown podzol soils are characterised by dark brown humus-mineral soil covered with a thin mat of partly decayed leaves.
[34] Podzol soils are Infertile acidic soils with an ash-like subsurface layer associated with acid leaching typically formed under coniferous forest.
[35] Surface water gleys and groundwater gleys are wetland soils with slowly permeable horizons resulting in seasonal waterlogging.
[36] Luvisol soils are generally fertile, widely used for agriculture and associated with significant accumulation of clay.
[37] These soils are altered by additions of sea-sand and seaweed. *Soils of County Waterford* (Soil Survey Bulletin No. 44), National Soil Survey of Ireland and Teagasc, 2011.

County Geological Sites[38], including two overview sites of the Copper Coast and Comeragh Mountains. Concentrations of these designations can be found in the upland areas and along the coast. Waterford County Geological Sites[39] are mapped on Figure 4.9 and listed in Appendix II.

4.8.2 UNESCO Global Geopark

United Nations Educational, Scientific and Cultural Organisation (UNESCO) Global Geoparks are single, unified geographical areas where sites and landscapes of international geological significance, managed with a holistic concept of protection, education and sustainable development. They strive to raise awareness of geodiversity and promote protection, education and tourism best practices.

The Copper Coast UNESCO Global Geopark[40] (mapped on Figure 4.10) covers geological and cultural heritage of the historic 19th century metal mines, extending approx. 17 km along the coast in County Waterford.

Whilst Global Geopark is not a legislative designation, the key heritage sites within a Geopark must be protected under local, regional and national legislation as appropriate.

4.8.3 Potentially contaminated lands and landfill sites

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species.

As is the case with other areas across the country, there is potential for contamination at sites within County Waterford (including Waterford City) , especially where land uses occurred in the past in the absence of environmental protection legislation. Such contamination has the potential to affect water quality, biodiversity and flora and fauna and human health. Where brownfield redevelopment is proposed, adequate and appropriate investigations are required to be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work.

4.8.4 Source Protection Areas

Source Protection Area delineation provides an assessment of the land area that contributes groundwater to a borehole or spring. Source reports have been undertaken by the GSI on behalf of Local Authorities since the mid-1990s.

Public Supply Source Protection Areas comprise are managed by Irish Water to supply Public Water Supply Schemes across Ireland. Source Protection Areas provide protection by placing tighter controls on activities within all or part of the zone of contribution of the source.

Groundwater bodies are important water supply sources for private wells, group schemes and local authority supplies and for use in a range of commercial activities. This is particularly the case in rural areas that are not served by public or group water schemes, with private bored wells being the only source of supply.

There are a number of Source Protection Areas in County Waterford, including:

- Public Supply Source Protection Areas, include those at:
  - Ardmore
  - Ballyrohan
  - Cappoquin
  - Dungarvan
  - Grange
  - Kilmacthomas/Ballyogarty
  - Lismore/Cappaquin/Ballyduff/ Ballyhane
  - Poulnagunoge
- Group Scheme Preliminary Source Protection Areas, include those at:
  - Ballydurn
  - Moonminane

Public Supply Source Protection Areas (including Inner and Outer Protection Areas[41]) and Group Scheme Preliminary Source Protection Areas[42] are mapped on Figure 4.11.

[38] *The Geological Heritage of Waterford. An audit of County Geological Sites in Waterford*, Geological Survey of Ireland, 2012.
[39] County Geological Sites in neighbouring counties, which straddle County Waterford boundaries have been also considered by the assessment.
[40] There are currently two other UNESCO Global Geoparks on the island of Ireland: The Marble Arch Caves in counties Cavan and Fermanagh and the Burren and Cliffs of Moher in counties Clare and Galway.
[41] The Zone of Contribution is the land area that contributes water to the well or spring. The Inner Protection Area (SI) is designed to protect against the effects of human activities that might have an immediate effect on the source and, in particular, against microbial pollution. The Outer Protection Area (SO) is encompassing the remainder of the zone of contribution to the groundwater abstraction point (e.g. borehole or spring).
[42] The Group Scheme Preliminary Source Protection Areas comprises Zones of Contribution to groundwater abstraction points that supply Group Water Schemes across Ireland that are affiliated to the

4.8.5 Landslides

The term "landslide" describes a wide variety of processes that result in the downward and outward movement of materials such as rock, debris, earth, mud and peat under the force of gravity. Issues such as existing ground conditions, slope stability and storage of excavated material have the potential to influence susceptibility to landslides/bog bursts. The potential impacts of landslides include loss of human life/injury, flooding, pollution of watercourses and impacts upon aquatic biodiversity.

The County has numerous locations with a history of landslide events[43] (shown on Figure 4.12). Many of these events are associated with the peatland and upland areas in the Comeragh Mountains.

The GSI have identified that most of the County has relatively low levels of landslide susceptibility, with moderate and high susceptibility found in upland areas (as shown on Figure 4.12).

4.8.6 Existing Problems

Legislative objectives governing soil were not identified as being conflicted with.

National Federation of Group Water Schemes and that supply more than 15 people.

[43] Over 2,500 landslide events are recorded in the National Landslides Database available from GSI (www.gsi.ie). This dataset also includes Landslide Susceptibility Mapping to assist in the identification of areas that are likely to experience landsliding. Date records are not available for landslide events mapped on Figure 4.12.

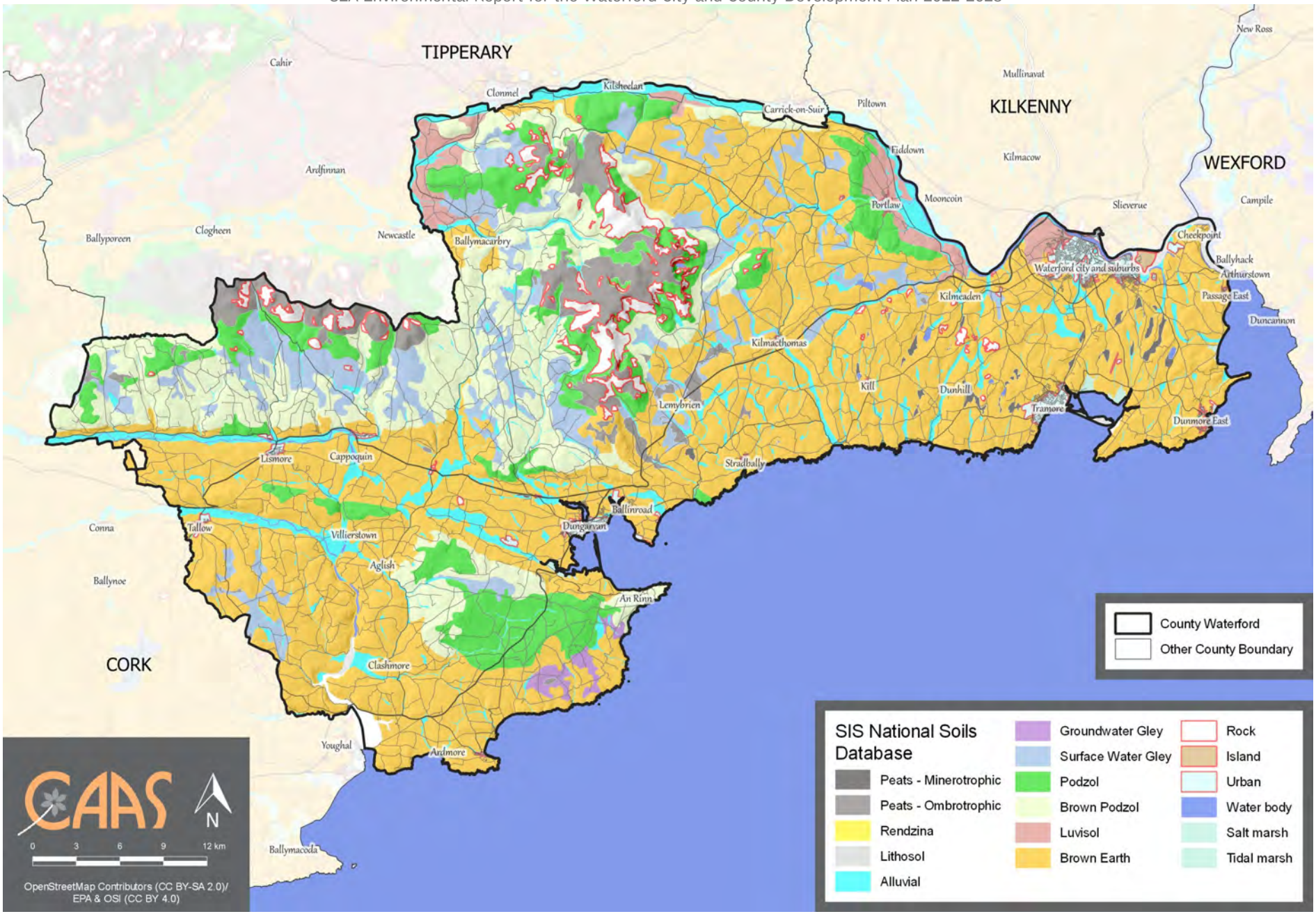


Figure 4.8 Soil Type

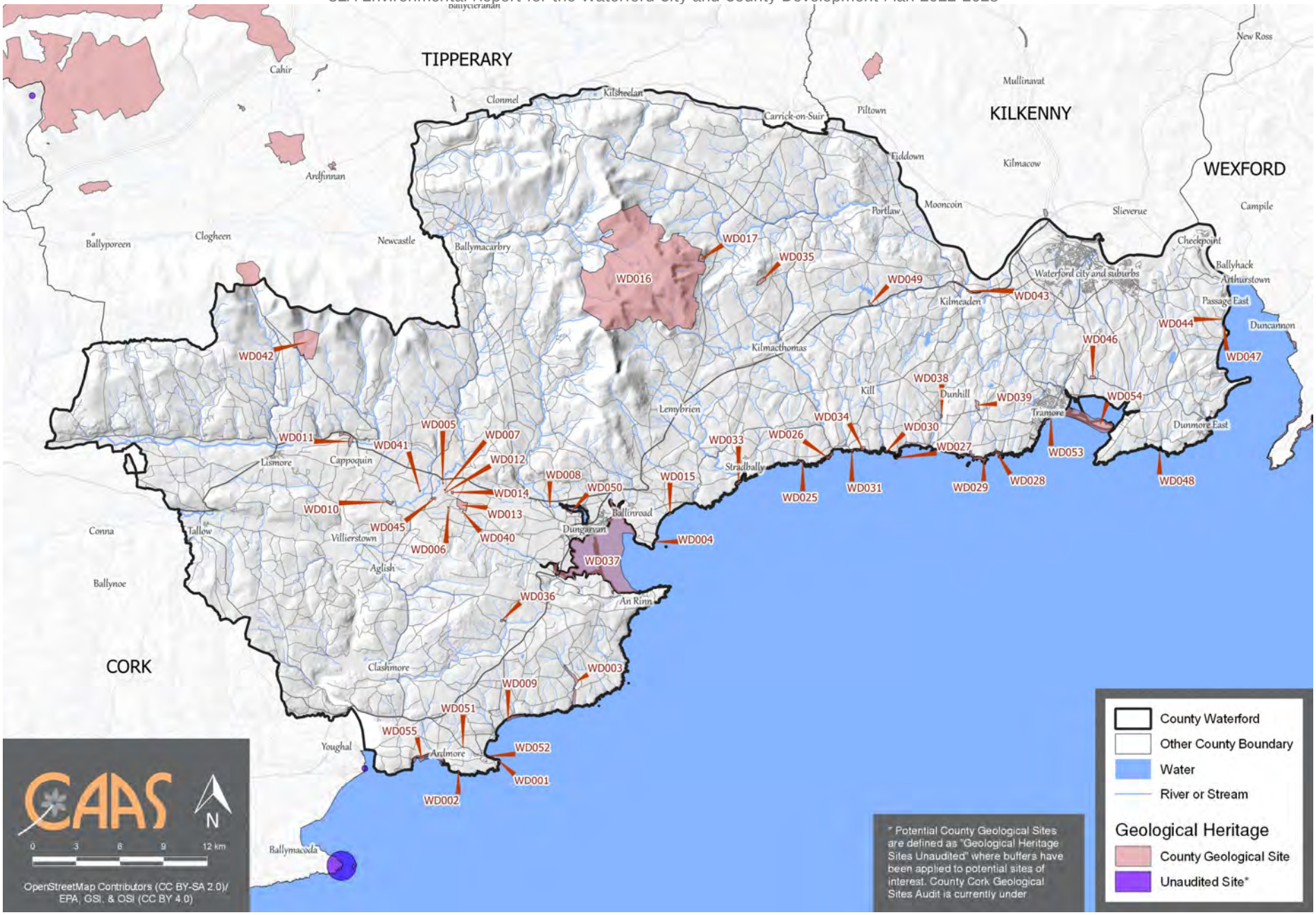


Figure 4.9 County Geological Sites

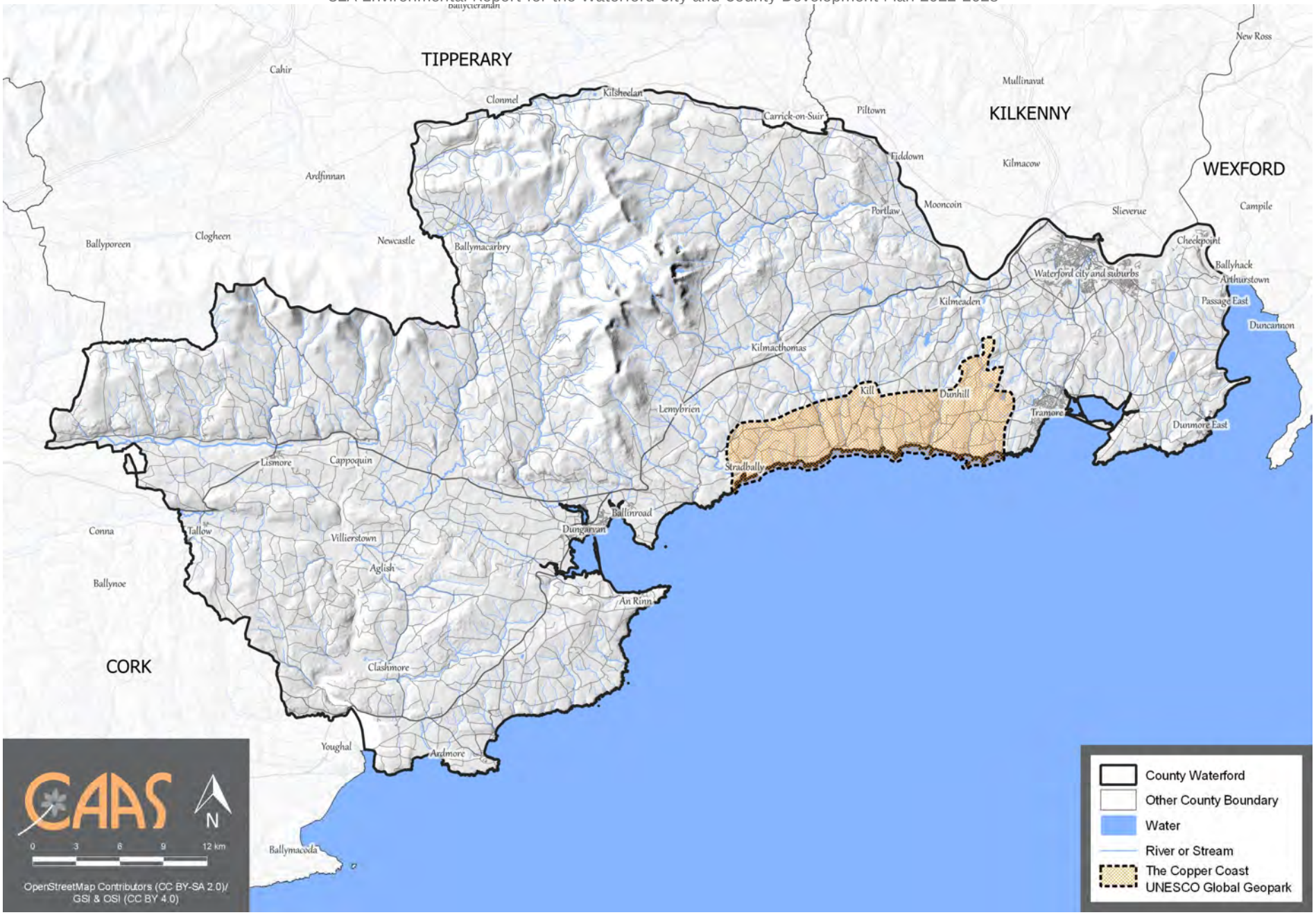


Figure 4.10 UNESCO Global Geopark

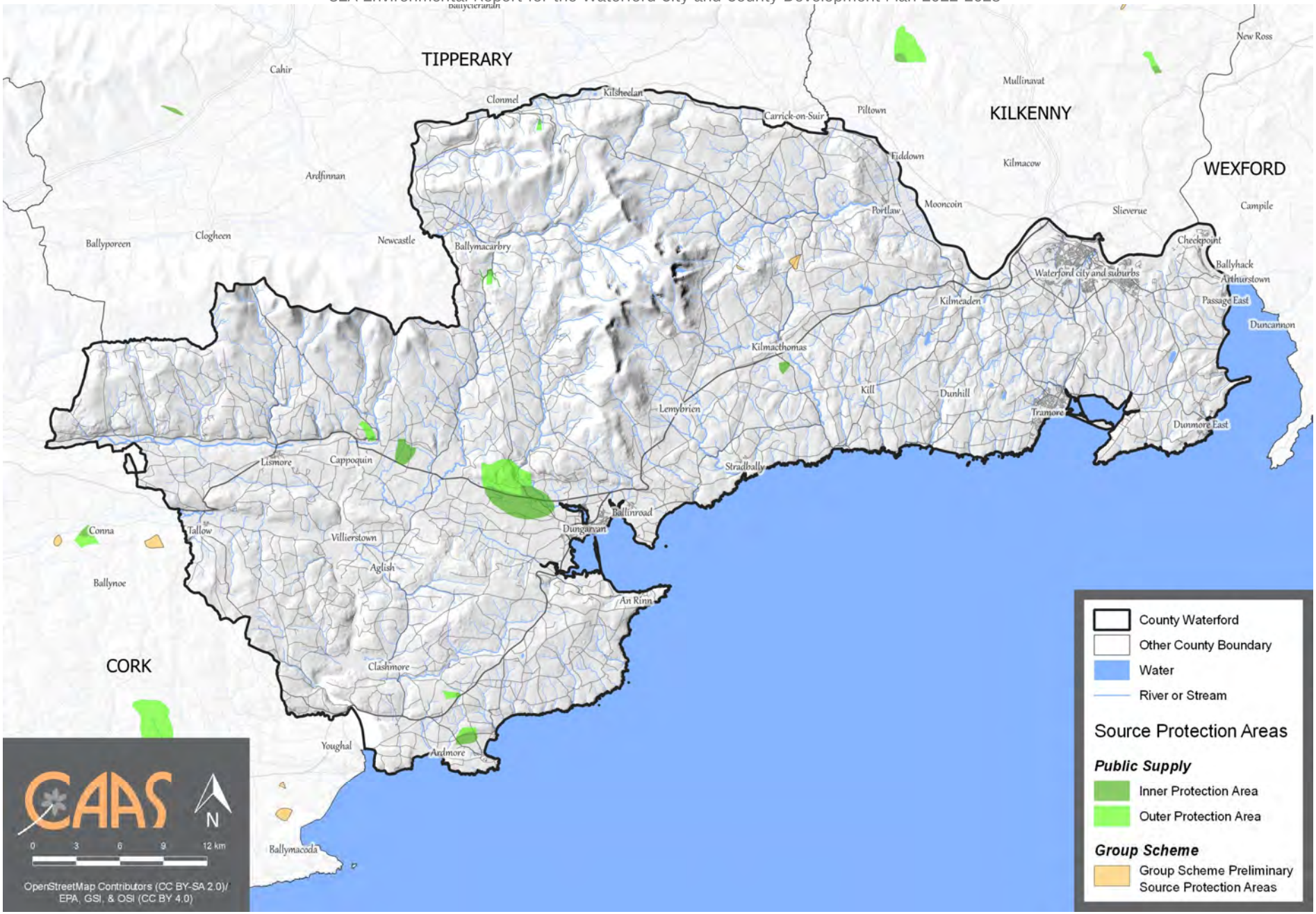


Figure 4.11 Source Protection Areas

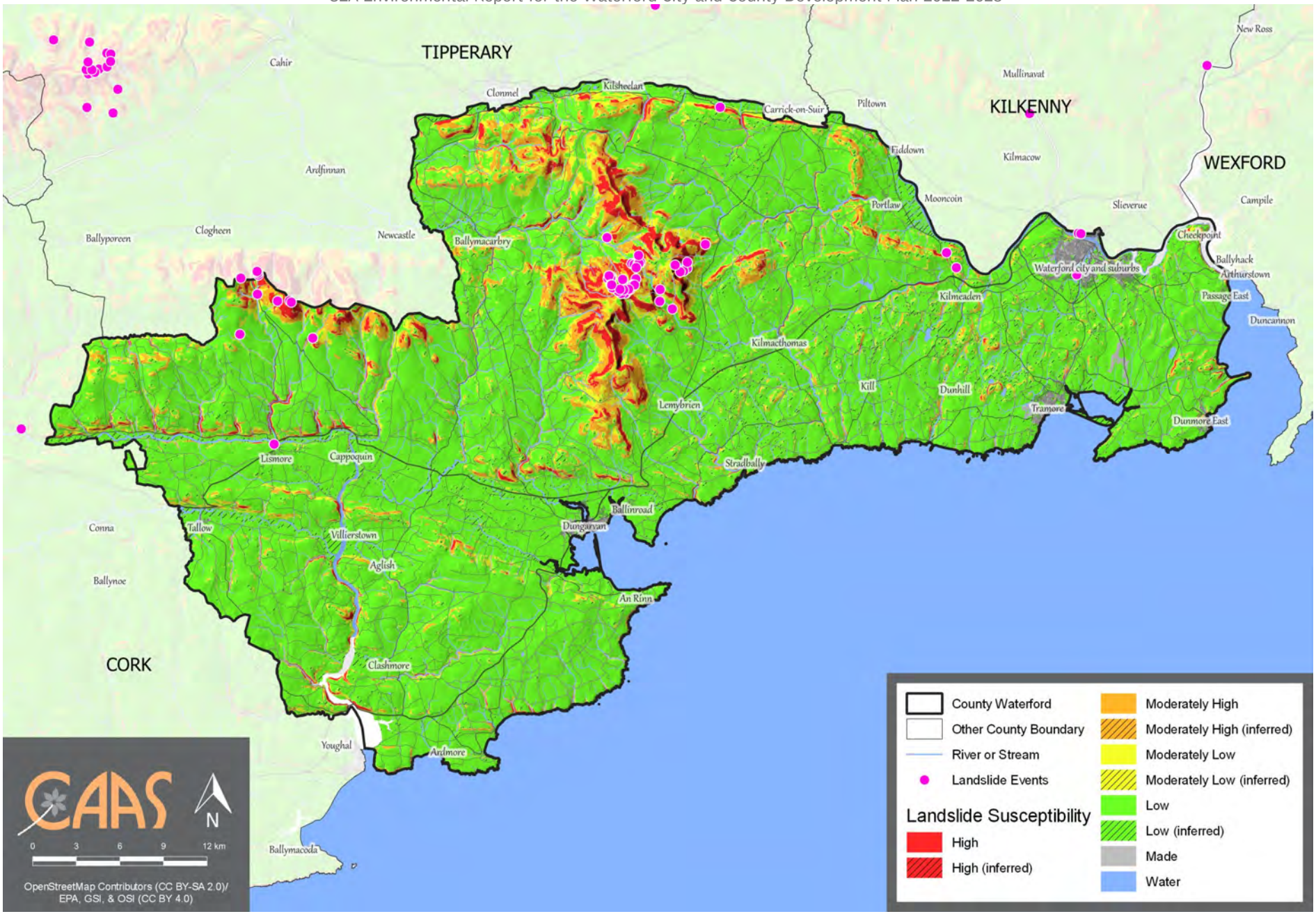


Figure 4.12 Landslide Susceptibility and Previous Landslide Events

4.9 Water

4.9.1 The Water Framework Directive

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving good status. All public bodies are required to coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted and improve polluted water bodies to good status.

Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the River Basin Management Plan.

The EU's Common Implementation Strategy Guidance Documents No. 20 and 36 provide guidance on exemptions to the environmental objectives of the WFD.

For the purpose of assessment, reporting and management, water is divided into groundwater, rivers, lakes, estuarine waters and coastal waters that are in turn divided into specific, clearly defined water bodies.

4.9.2 Zone of Influence

The zone of influence of the Plan beyond the County boundary, with respect to impacts upon waters can be estimated to be all bodies of groundwater and all surface waters downstream areas of catchments which drain the County.

4.9.3 Surface Water Drainage

A catchment is an area of land contributing to a waterbody, with all the water ultimately running off to a single outlet. The WFD requires water quality management to be based on natural river catchments i.e. by reference to the natural, environmental unit rather than by reference to administrative or legal boundaries, which often fragment river catchments.

Catchments draining the County include:

- Blackwater (Munster) - an area drained by the River Blackwater and all streams entering tidal water between East Point and Knockaverry, Youghal, County Cork;
- Colligan-Mahon - an area drained by the Rivers Colligan and Mahon and all streams entering tidal water between Cheekpoint and East Point, Country Waterford; and
- Suir - an area drained by the River Suir and all streams entering tidal water between Drumdowney and Cheekpoint, County Waterford.

The main rivers within the County include the Rivers Suir, Blackwater and Bride.

4.9.4 Surface Water Status

The WFD defines 'overall surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, in order to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

Ecological status is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of 'good ecological status' when they meet Directive requirements.

Chemical Status is a pass/fail assignment with a failure defined by a face-value exceedance of an Environmental Quality Standards (EQS) for one or more Priority Action Substances (PAS) listed in Annex X of the Water Framework Directive (WFD). The EQS values for individual PAS substances are set at European level. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the environmental limit values specified in the Directive.

The WFD surface water status (2013-2018), for rivers, lakes, transitional and coastal waters within and surrounding the County is shown on Figure 4.13 and on Table 4.1.

The WFD status of most of the rivers within the County is classified as *moderate*, *good* and *high*, however sections[44] of rivers (including: Suir; St. Johns; Leperstown Stream; and Brickey) are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status.

The WFD surface water status (2013-2018) of lakes within and surrounding the County is identified as *good* (including Carrigavantry) and *moderate* (including Knockaderry, Belle and Ballyshunnock).

The WFD surface water status (2013-2018) of transitional and coastal waterbodies within and surrounding the County is identified as *high* (including: Upper Blackwater Estuary; Tramore Back Strand; and Dungarvan Harbour), *good* (including Lower Suir Estuary, Little Island - Cheekpoint) and *moderate* (including: Barrow/ Suir/Nore Estuary; Lower Blackwater Estuary/ Youghal Harbour; Youghal Bay; and Waterford Harbour), however, some transitional waterbodies (including: Upper Suir Estuary; Middle Suir Estuary; and Colligan Estuary) are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status.

The WFD surface water status (2013-2018) of waterbodies (including rivers and transitional waterbodies) within Waterford City (mapped on Map 5 in Appendix III) ranges from *moderate* (including the Halfway House Stream) to *poor* (including St. John's River).

Significant pressures, those pressures which need to be addressed in order to improve water quality, have been identified[45] for waterbodies that are 'At Risk' of not meeting their water quality objectives under the WFD. Significant pressures for surface water bodies within or adjacent to County Waterford are identified on Table 4.1. There are various types of pressures identified, such as:

- **Agricultural pressures** - can include issues related to farming including loss of excess nutrients and sediment loss to surface waters from diffuse sources such as spreading of fertilisers and manures. Excess phosphorous and sediment are typically issues for rivers and lakes, and too much nitrogen is the main issue for estuaries and coastal waters.
- **Urban run-off pressures** - can include leaking sewers and run-off from paved and unpaved areas and misconnections where private foul connections are connected to storm sewers instead of the foul sewer network.
- **Urban wastewater pressures** - can include direct discharge of nutrients from urban wastewater treatment plants and discharge from combined storm overflows or storm water overflows. Discharges of elevated concentrations of phosphorus, ammonium and nitrogen impact on the ecology of surface waters.
- **Hydromorphological and anthropogenic pressures** are identified together in many instances. Hydromorphological pressures can include: modifications to the physical habitat conditions or the natural functioning of a waterbody which can impact on ecology, caused by dredging and straightening of rivers (channelisation), land drainage or hard infrastructure such as dams, weirs, culverts or other obstructions. Anthropogenic pressures can include: water abstractions; invasive species; agriculture; use of fertilizers, manures and pesticides; animal husbandry activities; inefficient irrigation practices; deforestation of woods; aquaculture; pollution due to industrial effluents and domestic sewage; and recreational activities.
- **Industrial pressures** - can include discharges and emissions from industrial and commercial facilities.
- **Extractive industry related pressures** – can include different activities that lead to the extraction of raw materials from the earth, such as oil, metals, mineral and aggregates. Impacts from extractive sites include sediment/siltation pollution and alteration to the physical environment.
- **Forestry pressures** - can include poorly managed and inappropriately sited forest operations, negatively impact on water quality and aquatic habitats and species. The most common water quality problems arising from forestry relate to the release of sediment and nutrients and the impacts from acidification. Forestry may also give rise to changes in stream flow regimes caused by associated land drainage.
- **Domestic wastewater pressures** – can include septic-tank systems associated with one-off housing and small unlicensed private urban waste-water treatment plants. If not correctly installed and well maintained, these systems can result in leakage of untreated effluent to waters.

[44] As per EPA classification system (gis.epa.ie/EPAMaps)

[45] EPA (2019) *Report on Water Quality in Ireland 2013-2018*

Table 4.1 WFD River, Lake, Transitional and Coastal Waterbodies Status[46]

Waterbody Name (EPA Identification Code)[47]	Waterbody Type	WFD Surface Waterbody Status (2013 -2018)[48]
Suir_220	**River**	**Poor** - due to poor ecological/biological status**.** No pressures identified.
St John's_020	**River**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from agricultural, urban run-off and urban wastewater sources.**
Leperstown Stream_010	**River**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from agricultural sources.**
Brickey_010	**River**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from agricultural and domestic wastewater sources.**
Upper Suir Estuary	**Transitional**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from agricultural sources.**
Middle Suir Estuary	**Transitional**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from agricultural sources.**
Colligan Estuary	**Transitional**	**Poor** - due to poor ecological/biological status. This waterbody is identified as being **under significant pressure from urban wastewater sources.**
Suir_210	**River**	**Moderate**. No pressures identified.
Suir_200	**River**	**Moderate**. No pressures identified.
Suir_190	**River**	**Moderate**. No pressures identified.
Owbeg (Waterford)_020	**River**	**Moderate**. This waterbody is identified as being **under pressure from hydromorphological/anthropogenic sources.**
Owbeg (Waterford)_010	**River**	**Moderate**. This waterbody is identified as being **under pressure from hydromorphological/anthropogenic sources.**
Nier_020	**River**	**Moderate**. This waterbody is identified as being **under pressure from forestry sources.**
Nier_010	**River**	**Moderate**. This waterbody is identified as being **under pressure from hydromorphological/anthropogenic sources.**
Mahon_020	**River**	**Moderate**. This waterbody is identified as being **under pressure from urban wastewater sources.**
Halfway House Stream_010	**River**	**Moderate**. This waterbody is identified as being **under pressure from urban run-off sources.**
Glenaboy_020	**River**	**Moderate**. This waterbody is identified as being **under pressure from urban run-off sources**.
Finisk_020	**River**	**Moderate.** No pressures identified.
Dunhill_010	**River**	**Moderate**. This waterbody is identified as being **under pressure from domestic wastewater sources.**
Colligan_020	**River**	**Moderate**. No pressures identified.
Clodiagh (Portlaw)_030	**River**	**Moderate.** No pressures identified.
Blackwater (Munster)_220	**River**	**Moderate**. This waterbody is identified as being **under pressure from extractive industry related sources.**
Ballyshunnock	**Lake**	**Moderate**. This waterbody is identified as being **under pressure from agricultural sources.**
Belle	**Lake**	**Moderate**. This waterbody is identified as being **under pressure from agricultural sources.**
Knockaderry	**Lake**	**Moderate**. This waterbody is identified as being **under pressure from agricultural sources.**
Lower Blackwater Estuary/Youghal Harbour	**Transitional**	**Moderate. This waterbody is identified as being under pressure from agricultural sources.**
Barrow Suir Nore Estuary	**Transitional**	**Moderate.** No pressures identified.

[46] Source: https://gis.epa.ie/EPAMaps/ and https://gis.epa.ie/EPAMaps/Water.
[47] The number at the end of each river water body name indicates where the waterbody is located along the main river channel. For example, the waterbody at the source is coded '_010', the next waterbody downstream is coded '_020' and the final waterbody before the river becomes transitional is '_180'.
[48] There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term "*unassigned status"* applies in respect of these waterbodies. These are not included on Table 4.1.

Waterbody Name (EPA Identification Code)[47]	Waterbody Type	WFD Surface Waterbody Status (2013 -2018)[48]
Waterford Harbour	**Coastal**	**Moderate**. This waterbody is identified as being **under pressure from hydromorphological/anthropogenic sources.**
Youghal Bay	**Coastal**	**Moderate. This waterbody is identified as being under pressure from agricultural sources.**
Tourig_020	**River**	**Good**. No pressures identified.
Tourig_010	**River**	**Good**. No pressures identified.
Tay_030	**River**	**Good**. No pressures identified.
Tay_010	**River**	**Good**. This waterbody is identified as being **under pressure from agricultural and forestry sources.**
Suir_180	**River**	**Good**. No pressures identified.
Suir_170	**River**	**Good**. No pressures identified.
Owennashad_030	**River**	**Good**. No pressures identified.
Owennashad_020	**River**	**Good**. This waterbody is identified as **being under pressure from hydromorphological/anthropogenic sources.**
Owennashad_010	**River**	**Good**. No pressures identified.
Nier_030	**River**	**Good**. No pressures identified.
Morragen_010	**River**	**Good**. No pressures identified.
Mahon_040	**River**	**Good**. No pressures identified.
Licky_030	**River**	**Good**. No pressures identified.
Licky_020	**River**	**Good**. No pressures identified
Licky_010	**River**	**Good**. This waterbody is identified as being **under pressure from forestry sources.**
Goish_020	**River**	**Good**. This waterbody is identified as **being under pressure from agricultural sources.**
Goish_010	**River**	**Good**. This waterbody is identified as being **under pressure from forestry sources.**
Glennafallia_020	**River**	**Good.** No pressures identified.
Glennafallia_010	**River**	**Good.** This waterbody is identified as being **under pressure from forestry sources.**
Glendine (Blackwater)_010	**River**	**Good.** No pressures identified.
Glenaboy_010	**River**	**Good.** No pressures identified.
Finisk_030	**River**	**Good.** No pressures identified.
Finisk_010	**River**	**Good.** No pressures identified.
Colligan_040	**River**	**Good.** This waterbody is identified as **being under pressure from hydromorphological/anthropogenic sources.**
Colligan_010	**River**	**Good.** No pressures identified.
Clodiagh (Portlaw)_050	**River**	**Good.** No pressures identified.
Clodiagh (Portlaw)_040	**River**	**Good.** No pressures identified.
Clodiagh (Portlaw)_020	**River**	**Good.** No pressures identified**.**
Bride (Blackwater)_070	**River**	**Good.** No pressures identified.
Blackwater (Munster)_210	**River**	**Good.** No pressures identified.
Araglin (Blackwater)_030	**River**	**Good.** No pressures identified.
Araglin (Blackwater)_020	**River**	**Good.** No pressures identified.
Araglin (Blackwater)_010	**River**	**Good.** No pressures identified.
Carrigavantry	**Lake**	**Good.** This waterbody is identified as **being under pressure from forestry sources.**
Lower Suir Estuary (Little Island - Cheekpoint)	**Transitional**	**Good**. This waterbody is identified as **being under pressure from agricultural sources.**
Tay_020	**River**	**High.** No pressures identified.
Monavugga_010	**River**	**High.** No pressures identified.
Mahon_010	**River**	**High.** No pressures identified.
Glenshelane_010	**River**	**High.** No pressures identified.
Glenakeefe_020	**River**	**High.** No pressures identified.
Glenakeefe_010	**River**	**High.** No pressures identified.
Glasha (Waterford)_010	**River**	**High.** No pressures identified.
Farnane_010	**River**	**High.** No pressures identified.
Dalligan_010	**River**	**High.** No pressures identified.
Clodiagh (Portlaw)_010	**River**	This waterbody is identified as being **under pressure from agricultural and forestry sources.**
Araglin (Colligan)_010	**River**	**High.** No pressures identified.
Upper Blackwater M Estuary	**Transitional**	**High.** This waterbody is identified as **being under pressure from hydromorphological/anthropogenic sources.**
Dungarvan Harbour	**Coastal**	**High.** No pressures identified.
Tramore Back Strand	**Coastal**	**High.** This waterbody is identified as **being under pressure from hydromorphological/anthropogenic sources.**

4.9.5 Ground Water

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable, allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters. Groundwater is the part of the subsurface water that is in the saturated zone - the zone below the water table, the uppermost level of saturation in an aquifer at which the pressure is atmospheric, in which all pores and fissures are full of water.

For groundwater bodies, the approach to classification is different from that for surface water. For each body of groundwater, both the chemical status and the quantitative must be determined. Both have to be classed as either *good* or *poor*. The WFD sets out a series of criteria that must be met for a body to be classed as good chemical and quantitative status.

The WFD status (2013-2018) of groundwater underlying the entire County (mapped on Figure 4.14) is mostly identified as being of *good* status, with areas of *poor* status to north-west of Dungarvan[49] and in parts of the south of Waterford City[50] (WFD groundwater status underlying Waterford City is also mapped on Map 6 in Appendix III).

4.9.6 Aquifer Vulnerability and Productivity

The Geological Survey of Ireland (GSI) rates groundwaters according to both their productivity and vulnerability to pollution.

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The vulnerability of aquifers underlying the County are mapped on Figure 4.15 (and on Map 7 in Appendix III for Waterford City) and generally classified as being of:

- *High and moderate*, throughout most of the County;
- *Low vulnerability,* in small areas throughout the County; and
- *Extreme vulnerability* and *extreme (rock at or near surface or karst)* including in the central and upland areas.

The GSI also rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. This is referred to as aquifer productivity and is mapped on Figure 4.16 (including Waterford City). Productivity is generally classified as being:

- *Locally important aquifer bedrock which is moderately productive only in local zones*;
- *Regionally important aquifer fissured bedrock;*
- *Regionally important aquifer karstified (diffuse);*
- *Locally important aquifer karstified;*
- *Locally important aquifer bedrock which is generally moderately productive;* and
- *Poor aquifer bedrock which is generally unproductive except for local zones*.

4.9.7 WFD Registers of Protected Areas

The WFD requires that Registers of Protected Areas (RPAs) are compiled for a number of water bodies or part of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife.

The WFD requires that these RPAs contain: areas from which waters are taken for public or private water supply schemes; designated shellfish production areas; bathing waters; areas which are affected by high levels of substances most commonly found in fertilizers, animal and human wastes - these areas are considered nutrient sensitive; areas designated for the protection of habitats or species e.g. Salmonid areas; Special Areas of Conservation (SACs); and Special Protection Areas (SPAs).

Entries to the RPAs within and adjacent to the County include:

- Nutrient Sensitive Areas – the rivers Blackwater and Suir, Blackwater Estuary Lower and Middle Suir Estuary are identified as Nutrient Sensitive Areas, as shown on Figure 4.17;
- Surface Water and Groundwater[51] in Nutrient Sensitive Areas[52], as shown on Figure 4.17;

[49] Underlying a Waste Facility (W0032-02).
[50] Underlying a Waste Facility (W0018-01) and Industrial Facility (P0157-02).
[51] Groundwater bodies that intersect with areas designated as sensitive.
[52] Areas designated as sensitive under the Urban Wastewater Treatment Directive (91/271/EEC) and and transposing Regulations.

- Drinking Water Surface Water Bodies[53] (shown on Figure 4.18). Groundwater beneath the entire County is also included; and
- Bathing Water Areas[54] including surface waters and groundwater in bathing areas (shown on Figure 4.19 and Map 9 in Appendix III).

The Middle Suir Estuary flowing through the north of the Waterford City is included on the RPA for Nutrient Sensitive Areas as an Urban Wastewater Treatment Directive Sensitive Area (shown on Map 8 in Appendix III).

RPAs relating to Salmonid Regulations and Shellfish Areas are addressed under Section 4.6 "Biodiversity and Flora and Fauna".

There are also a number of water dependent habitats in the County which have been listed on RPAs – these relate to designated SACs and SPAs (see Section 4.6.3).

4.9.8 Bathing Waters

Bathing locations identified as 'Bathing Waters' under the Bathing Water Regulations 2008, as amended, are mapped on Figure 4.19.

For bathing waters, "Mandatory and Guide Values" are set out for bathing waters in the 2006 EU Bathing Water Directive and transposing Regulations. Mandatory Values are values that must be observed if the bathing area is to be deemed compliant with the Directive. Compliance with Guide Values exceeds guidance with Mandatory Values and can be regarded as quality objectives which bathing sites should endeavour to achieve.

Bathing waters are now classified into four quality categories; *'excellent'*, *'good'*, *'sufficient'*, or *'poor'* with a minimum target of *'sufficient'* required to be achieved for all bathing waters.

The most recent available data from the EPA for 2019[55] shows that locations of designated bathing waters along the County's coastline are either classified as *excellent*[56] (at: Counsellors' Strand; Dunmore East; Dunmore Strand; Tramore Beach; Clonea Beach; and Ardmore Beach) or *good*[57] (at Bunmahon Beach).

The Blue Flag award is given to beaches and marinas that have excellent water quality and maintain other standards including effective and appropriate management to ensure the protection of the natural environment and safety standards. Bathing locations at Councillors Strand Dunmore East, Dunmore Strand, Tramore and Clonea were awarded with the Blue Flag in 2020.

4.9.9 Flooding

Certain areas across the County are at risk of flooding from sources including groundwater, pluvial[58], fluvial[59] and coastal[60]. There is historic evidence of flooding in various locations across the County, including: along Rivers Blackwater, Colligan, Tay, Mahon and Suir and at various locations along the coastline.

Locations within and adjacent to the County that were identified by the Office of Public Works (OPW) in 2012 as requiring detailed assessment of flood risk (Areas for Further Assessment) include: Ballyduff, Dungarvan and Environs, Dunmore East, Portlaw, Ringphuca, Tallow, Tramore and Environs and Waterford. Detailed predictive flood risk mapping is now available for these areas.

A Strategic Flood Risk Assessment (SFRA), as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG and OPW, 2009), has been undertaken alongside the preparation of the SEA and the preparation of the Plan. This assessment considers available and emerging information on historical and predictive flood risk indicators. Indicative Flood Zones mapping for the County is shown on Figure 4.20[61] (and for Waterford City on Map 11 in Appendix III), indicating areas likely to be at most risk of flooding.

[53] Various water bodies are used for drinking water abstraction in accordance with European Communities (Drinking Water) (No. 2) Regulations 2007 (SI No. 278/2007).
[54] Bathing Waters are designated under the Bathing Water Quality Regulations 2008 S.I. No. 79 of 2008, as amended.
[55] EPA Report (2020) on *Bathing Water Quality in Ireland for the year 2019*
[56] The highest, cleanest class
[57] The second highest, second cleanest class
[58] Resulting from high intensity rainfall events where run-off volume exceeds capacity of surface water network.
[59] Watercourse capacity is exceeded or the channel is blocked and excess water spills from the channel onto adjacent floodplains.
[60] Resulting from higher sea levels than normal causing the sea to overflow onto land. Such flooding is influenced by high tide level, storm surges and wave action.
[61] This mapping shows the likelihood of flooding from a number of sources, defined as the percentage probability of a flood occurring in any given year. For example, a 1% Annual Exceedance Probability (AEP) indicates the severity of a flood that is expected to be exceeded on average once in 100 years, i.e. it has a 1 in 100 (1%) chance of occurring in any one year.

4.9.10 Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, certain surface and groundwater bodies will need improvement in order to comply with the objectives of the WFD.

The Plan includes provisions that will contribute towards improvements in the status of waters.

There is historic and predictive evidence of elevated levels of flood risk from fluvial and coastal sources at various locations across the County.

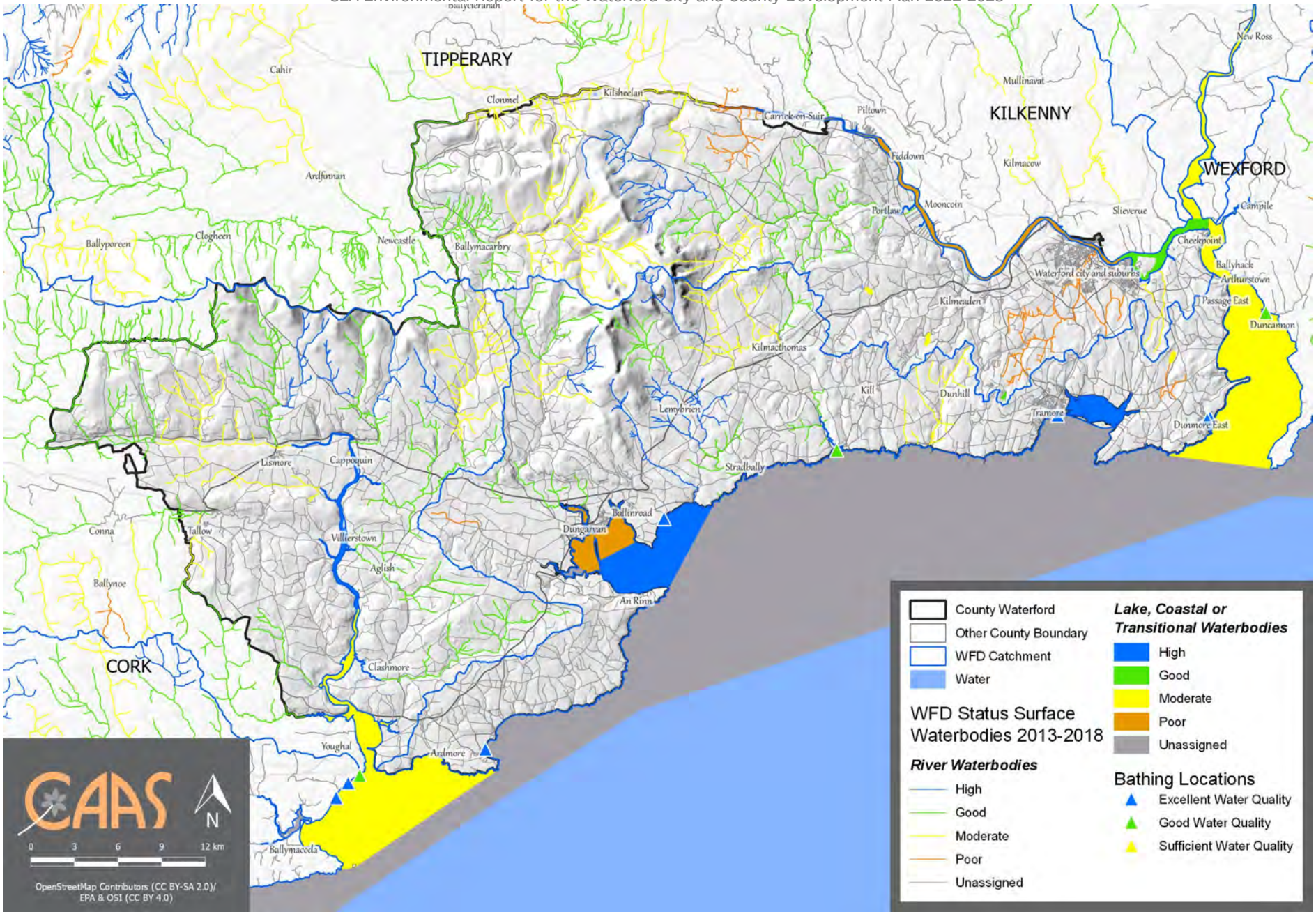


Figure 4.13 WFD Surface Water Status (2013-2018)

Figure 4.14 WFD Groundwater Status (2013-2018)

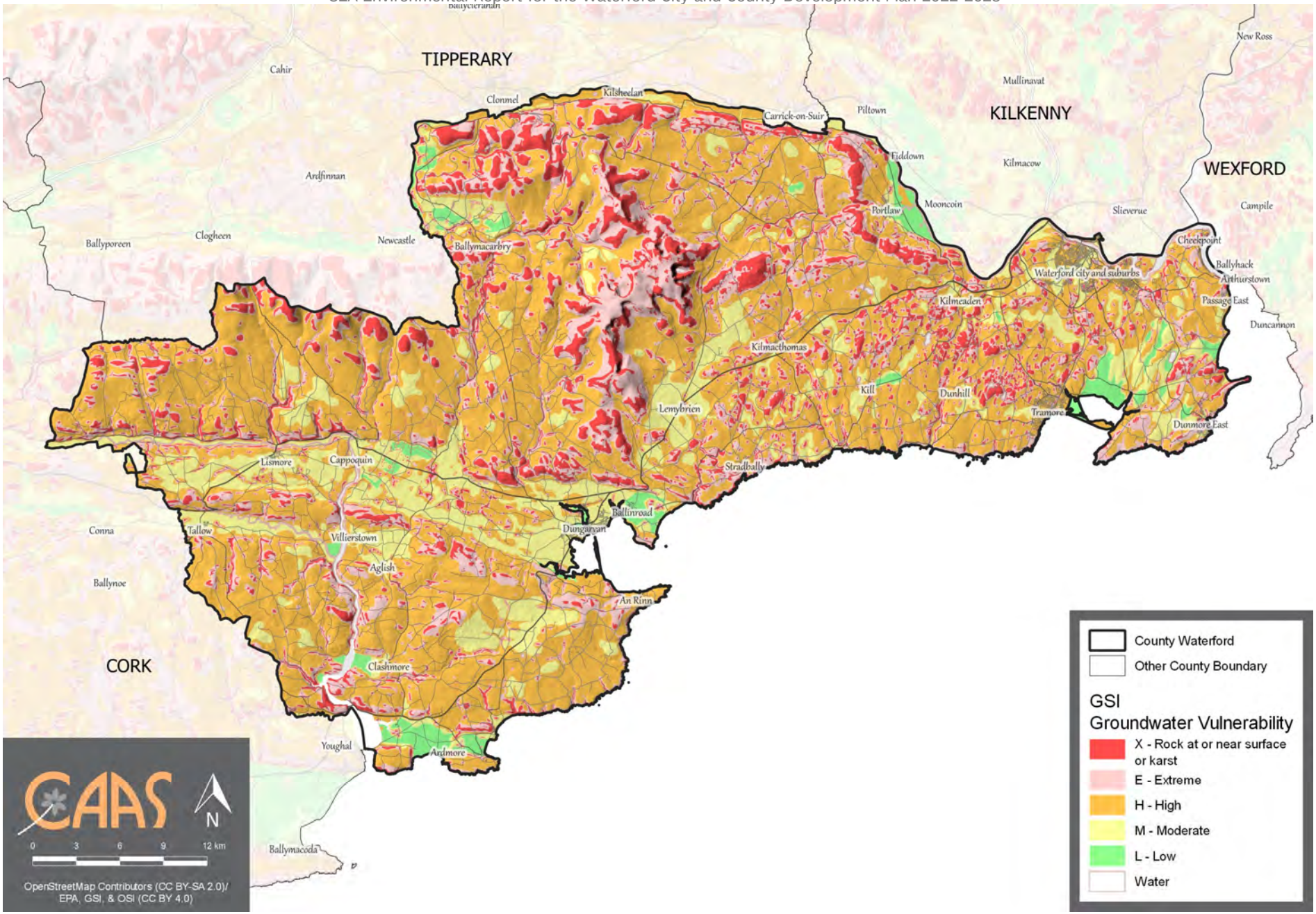


Figure 4.15 Groundwater Vulnerability

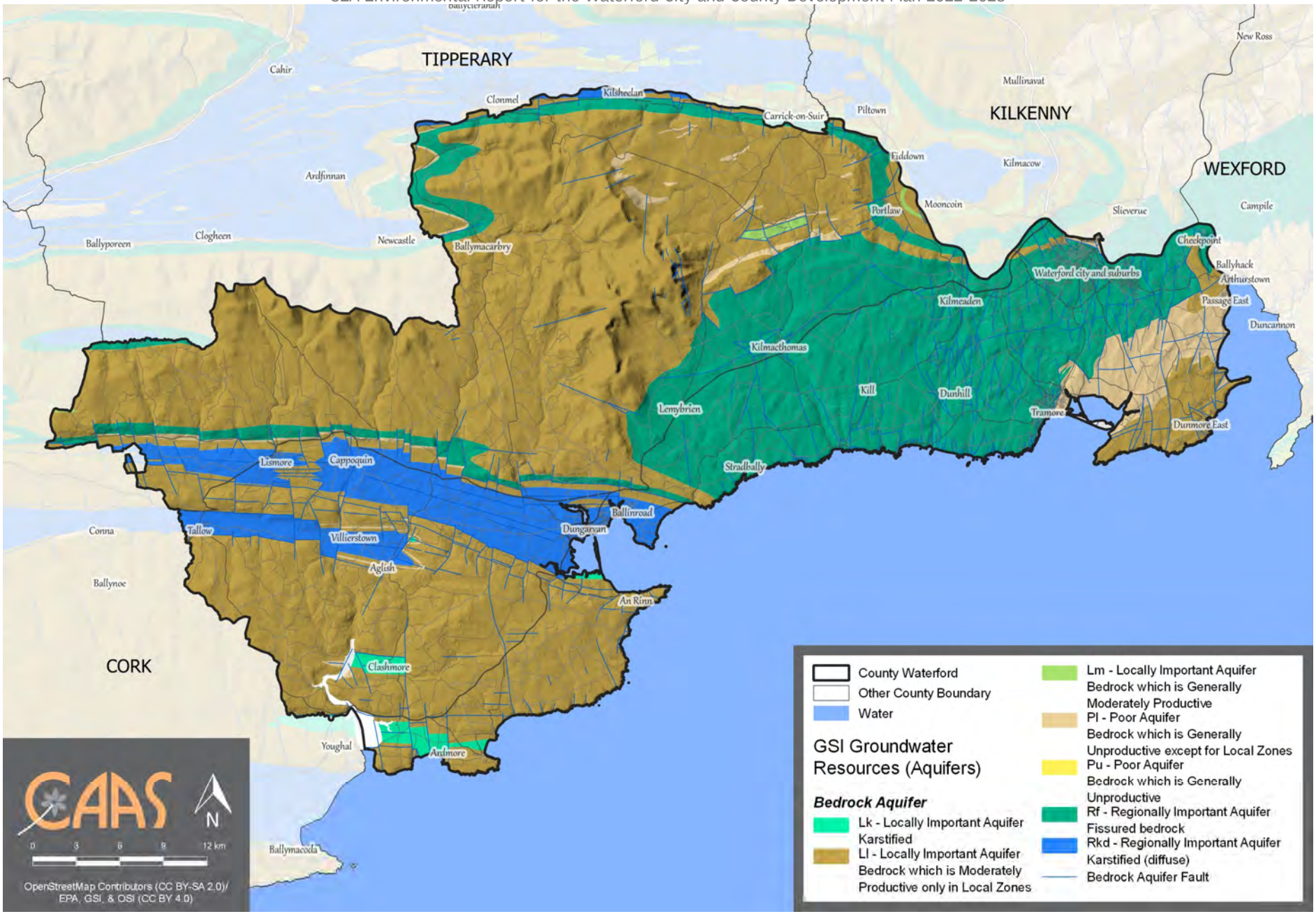


Figure 4.16 Groundwater Productivity

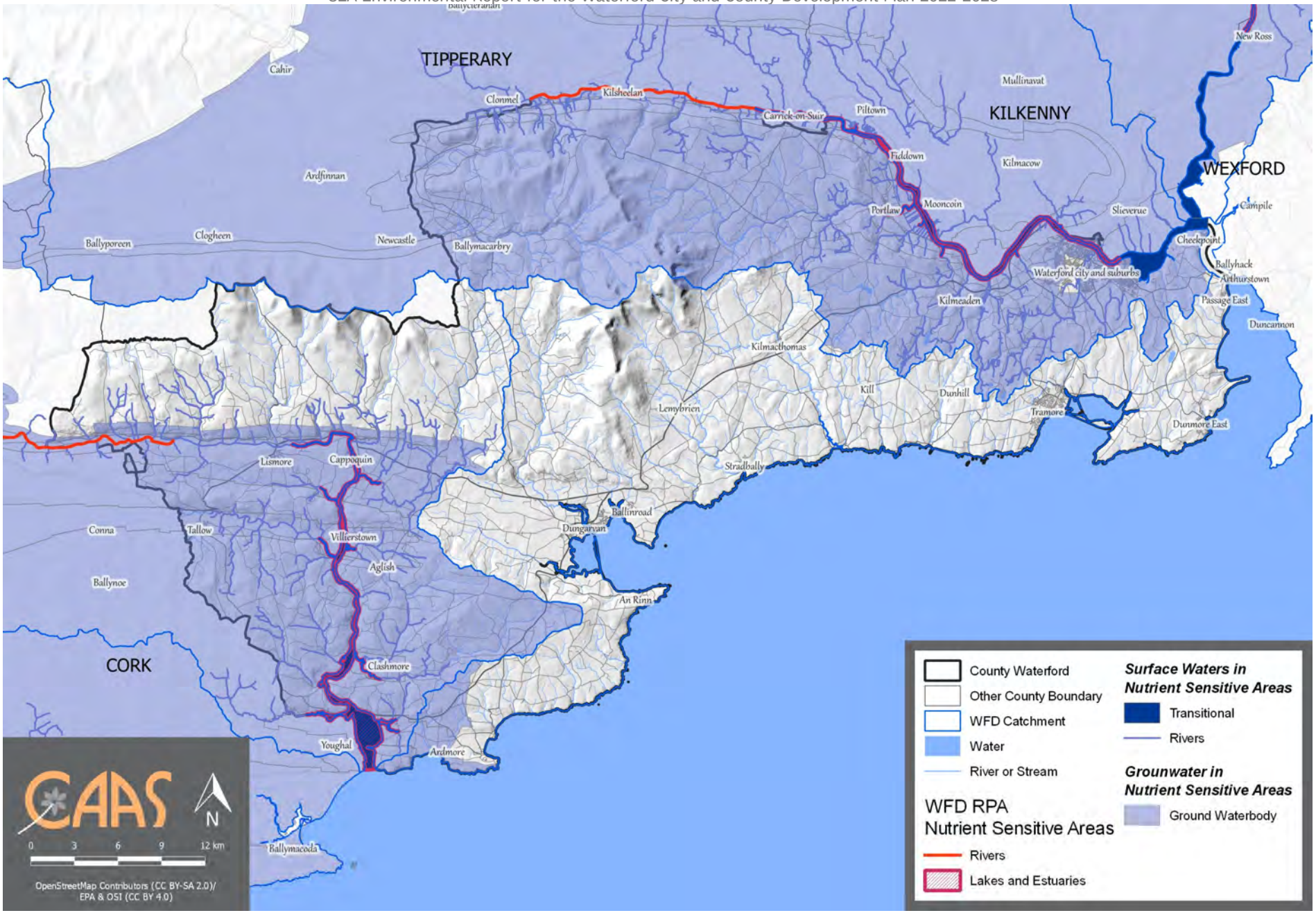


Figure 4.17 WFD Register of Protected Areas: Nutrient Sensitive Areas

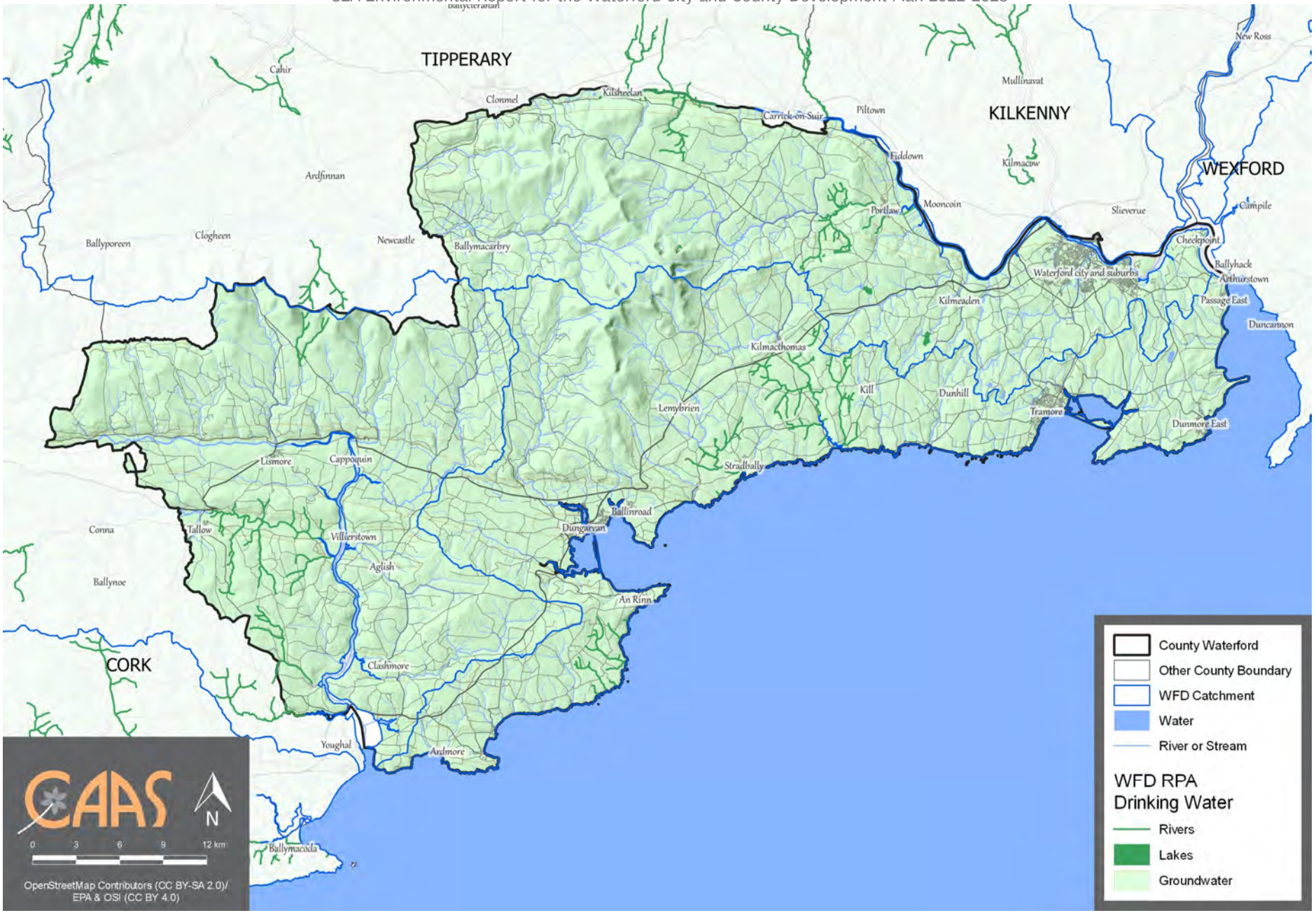


Figure 4.18 WFD Register of Protected Areas: Drinking Water

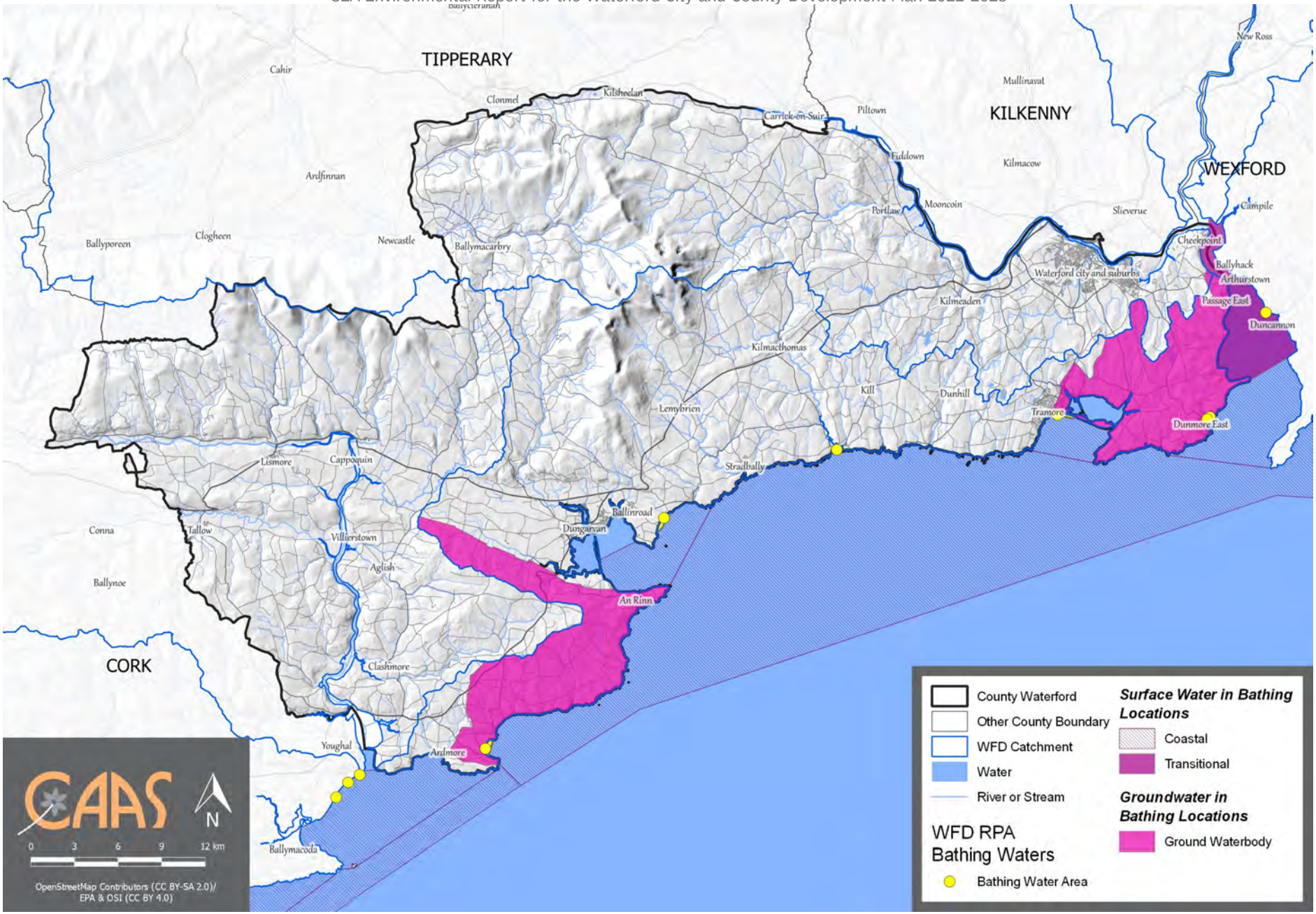


Figure 4.19 WFD Register of Protected Areas: Bathing Waters

Figure 4.20 Indicative Flood Zones from the SFRA

4.10 Air and Climatic Factors

4.10.1 Introduction

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

Ireland's Provisional Greenhouse Gas Emissions 1990-2017 (EPA, 2018) details provisional estimates of greenhouse gas emissions for the period 1990-2017. For 2017, total national greenhouse gas emissions are estimated to be 60.75 million tonnes carbon dioxide equivalent (Mt CO_2eq). This is 0.9% lower (0.53 Mt CO_2eq) than emissions in 2016.

Ireland's Final Greenhouse Gas Emissions 1990-2017 (EPA, 2019) identifies that:

- For 2017, the total national GHG emissions are estimated to be 60.74 million tonnes carbon dioxide equivalent (Mt CO_2eq), 0.9% lower than 2016.
- In the last 3 years, national total emissions have increased by 6.4%. In the same period, emissions in the ETS[62] sector have increased by 5.9%.
- Agriculture emissions increased by 2.9% in 2017 (driven by higher dairy cow numbers and increases in milk production).
- GHG emissions from the Transport sector decreased by 2.4% in 2017. This is the first year of decreased emissions after four successive years of increases in transport emissions.
- Agriculture and Transport accounted for 73.5% of total ESD emissions in 2017.
- Emissions in the Energy Industries sector show a decrease of 6.9% which is attributable to a 5.9% decrease in fossil fuel consumption and an increase of 21.1% and 1.6% in electricity generated from wind and hydro, respectively, in 2017. Renewables now account for 30.1% of electricity generated in 2017, an increase of 3.3% from 2016 figures. Ireland continued to be a net exporter of electricity in 2017. However, exported electricity saw a 4.7% reduction in 2017 to previous 2016 figures.
- Emissions from the Manufacturing Combustion[63] sector increased by 3.1% in 2017.
- The Industrial Processes sector emissions increased by 4.1%, mainly from increased cement production. Cement process emissions increased by 2.6% in 2017.
- GHG emissions from the Residential sector decreased by 5.0%. This can be attributed to a milder winter.
- Emissions from the Waste sector decreased by 2.5% in 2017.

The EPA 2019 publication *Ireland's Greenhouse Gas Emission Projections 2018-2040* provides an assessment of Ireland's total projected greenhouse gas emissions out to 2040 which includes an assessment of progress towards achieving its emission reduction targets out to 2020 and 2030 set under the EU Effort Sharing Decision and Effort Sharing Regulation (Regulation (EU) 2018/842). Ireland's 2020 target is to achieve a 20% reduction of non-Emission Trading Scheme (non-ETS) sector emissions (i.e. agriculture, transport, the built environment, waste and non-energy intensive industry) on 2005 levels with annual limits set for each year over the period 2013-2020. Ireland's 2030 target under the Effort Sharing Regulation is a 30% reduction of emissions compared to 2005 levels by 2030. There will be binding annual limits over the 2021-2030 period to meet that target. Key insights identified as part of the report's package of documents are that:

- There is a long-term projected decrease in greenhouse gas emissions as a result of inclusion of new climate mitigation policies and measures that formed part of the 2018-2027 National Development Plan (updated in 2021). This is evident in the With Additional Measures scenario which assumes full implementation of the programmes, policies and measures included in the 2018 National Development Plan.
- Fossil fuels such as coal, peat and gas continue to be key contributors to emissions from the power generation sector. However, a significant reduction in emissions over the longer term is projected as a result of the expansion of renewables (e.g. wind), assumed to reach 41-54% by 2030, with a move away from coal and peat.
- A growth in emissions from the transport sector continues to be projected which is largely attributed to fuel consumption from diesel cars and diesel freight. A decrease in emissions over the longer term, most notably in the With Additional Measures scenario, is largely attributed to assumed accelerated deployment of 500,000 electric vehicles and the impact of greater biofuel uptake.
  Agriculture emissions are projected to continue to grow steadily over the period which is mainly

[62] The EU emissions trading system (EU ETS) was launched in 2005 as the world's first international company-level 'cap-and trade' system for reducing emissions of greenhouse gases cost-effectively. The cap makes sure that CO_2 becomes a product and, thus, CO_2 is valued at a price, which is determined by the supply and demand at the (trading) market.

[63] Manufacturing Combustion; includes combustion of fuels in Industry and Construction, both in ETS and non-ETS

a result of an increase in animal numbers particularly for the dairy herd.
- The implementation of additional energy efficiency measures included in the 2018 National Development Plan will see a significant reduction in emissions in the residential, commercial/public services and manufacturing sectors over the projected period.

4.10.2 Climate Action

The National Climate Action Plan 2021 is an all of Government plan to tackle climate change and bring about a step change in Ireland's climate ambition over the coming years. The Action Plan sets out an ambitious course of action over the coming years to address the diverse and wide-ranging impacts climate disruption is having on Ireland's environment, society, economic and natural resources. The Climate Action Plan sets out clear 2030 targets for each sector with the ultimate objective of achieving a transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable society and economy by 2050. The Action Plan deals with both mitigation and adaptation.

Climate mitigation describes action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change.

The use of alternative fuels, including electricity, forms a significant part of government policy to reduce emissions, including from transport. Greater use of alternative fuels, including renewable energy, has the potential to further contribute towards energy security.

The 2019 emission projections do not consider the impact of new policies and measures that are included in the Action Plan. It is anticipated that future emission projections will include the additional impact of the Government Climate Plan.

The Climate Change Advisory Council's Annual Review 2020 identifies that the most recent projections demonstrate that, under different assumptions, Ireland will not meet its emissions reduction targets, even with the additional policies and measures included in the National Development Plan. The projections also show that progress on reducing emissions is sensitive to the future path of fuel prices. A significant and sustained rate of emissions reduction of approximately -2.5% per year is required to meet our objectives for 2050. However, it must be noted that additional measures within the recent Climate Action Plan are not included in the analysis to date.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts.

The National Adaptation Framework Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework, a number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for.

The Waterford City and County Council Climate Change Adaptation Strategy 2019-2024 features a range of actions across sectors including: Energy and Buildings; Flood Relief and Resilience; Transport; Resource Management; Coastal Protection and Nature-based Solutions; and Communities. The Strategy seeks to:

- Ensuring the effective and efficient delivery of functions and services under changing climatic conditions to reduce risk and increase resilience.
- Integrating climate change and adaptation considerations into policies and decision-making processes.
- Responding effectively to emergency situations to extreme weather events.
- Managing climate change risks to public assets owned or managed by WCCC (on behalf of or in partnership with other bodies/agencies).
- Translating and implementing national adaptation polices and cross-sectoral adaptation initiatives at a local level e.g. CFRAM mapping.
- Ensuring access to up to date and relevant climate change data and information to maintain an understanding of risks/vulnerabilities that the changing climate presents to local communities, local economic development, the natural environment and opportunities arising to support adaptation actions.
- Working with communities and local organisations to build resilience and adaptive capacity.
- Collaborating through partnerships with other agencies to achieve effective climate adaptation for Waterford.

4.10.3 Ambient Air Quality

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of the areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

The principles to this European approach are set out in the Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) (which replaces the earlier Air Quality Framework Directive 1996 and the first, second and third *Daughter Directives*; the fourth *Daughter Directive* will be included in CAFE at a later stage).

In order to comply with the directives mentioned above, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002).

The EPA's (2020) *Air Quality in Ireland 2019* identifies that:

- Air quality in Ireland is generally good however there are localised issues;
- Nitrogen dioxide (NO_2) from transport emissions is polluting urban areas; and
- Ireland was above World Health Organization air quality guideline value levels at 33 monitoring sites – mostly due to the burning of solid fuel within settlements across the country.

Problem pollutants identified by the EPA include particulate matter from burning of solid fuel and nitrogen dioxide from transport emissions in urban areas. Indications that Ireland will exceed EU limit values for nitrogen dioxide in the near future.

With regards to solutions, the report identifies that:

- To tackle the problem of particulate matter, clean ways of heating homes and improve energy efficiency of homes can be progressed; and
- To reduce the impact of nitrogen dioxide, transport options in the Government's Climate Action Plan can be implemented and transport choices can be considered by individuals.

In order to apply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at locations across the country. The current[64] air quality within the City and County is identified by the EPA as being *good*.

4.10.4 Noise

Waterford City and County Council has prepared a Noise Action Plan 2019-2023 in accordance with the requirements of the Environmental Noise Regulations 2006. The purpose of the Noise Action Plan is to avoid, prevent and reduce, on a prioritised basis the harmful effects, including annoyance due to the long-term exposure to environmental noise.

4.10.5 Existing Problems

Legislative objectives governing air and climatic factors in Waterford were not identified as being conflicted with.

4.11 Material Assets

Other material assets, in addition to those detailed below, covered by the SEA include archaeological and architectural heritage (see Section 4.12) natural resources of economic value, such as water and air (see Sections 4.9 and 4.10).

4.11.1 Public Assets and Infrastructure

Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include; settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, wastewater infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil.

4.11.2 Green Infrastructure

Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green

[64] 07/04/2021 (http://www.epa.ie/air/quality/)

infrastructure is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality.

4.11.3 Land

The Plan seeks to assist with the reuse and regeneration of brownfield sites thereby contributing towards sustainable mobility and reducing the need to develop greenfield lands and associated potential adverse environmental effects. Brownfield lands are generally located within urban/suburban areas.

4.11.4 Forestry

Approximately 22% of County Waterford is covered by coniferous forest plantations. The largest areas of forestry are found in the central and western parts of the County, as indicated on Figure 4.3. Coillte[65] manage 15% of the County's forests, while the remainder is in private ownership[66]. Coillte manage 5 forest amenity areas in the County, including Colligan, Dromana, Faithlegg, Glenshelane and Kilclooney. Woodlands provide recreational opportunities in addition to their heritage and economic benefits. They are a valuable resource in terms of biodiversity, recreation and tourism, and also important as links in the county's green infrastructure network.

4.11.5 Peatlands

Peatlands provide a valuable natural and archaeological resource. Peatlands are also important controllers of water levels in river catchments, providing a source of water in dry conditions and soaking up excess water during wetter periods; they actively capture and hold carbon and are an important natural resource in combatting climate change. Cutaway bogs have the potential to facilitate land uses such as employment, renewable energy generation, waste management, industrial, and tourism and recreation. Peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues; various peatland areas are subject to ecological designations (see Section 4.6).

4.11.6 Coastline

Management of the County's coastline and coastal erosion are topics with relevance to various environmental components. Many of the County's settlements have developed along or near the coast. The coastline of County Waterford is amongst the most sensitive and valuable resources in the County, in terms of natural and cultural heritage, scenic beauty and recreation. The coast (including harbours and piers) is also an important economic resource particularly for commercial fishing, fish processing, aquaculture, leisure and tourism industries in the County. Waterford airport and port also play a vital role providing the region with international connectivity.

4.11.7 Renewable Energy Potential

Under EU Directive 2001/77/EC Renewable Energy, renewable energy sources are defined as renewable non-fossil energy sources such as, but not limited to wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas, bio-gases and bio-char (i.e. the thermal treatment of natural organic materials in an oxygen-limited environment). There is potential for renewable energy development in the County and the Plan seeks to facilitate such development in a sustainable manner.

4.11.8 Minerals and Aggregates

Minerals such as iron and copper and aggregates such as sand and gravel can occur throughout the country. Minerals and aggregates are essential to manufacturing and construction.

Minerals localities within Waterford are shown on Figure 4.21. The GSI have a suite of data sources available that would be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

[65] Coillte Teoranta, the State Forestry Board, was established to manage the public forest built up since the commencement of State planting and is the largest provider of forest recreation in Ireland.

[66] Waterford City and County Development Plan 2022-2028.

4.11.9 Transport

Transport infrastructure in the County has the potential to support reductions in energy demand from the transport sector, including through electrification of modes.

The County is well served by public transport and road links. The N24, N25 and N72 traverse the County. Irish Rail operate services on the Kildare/Waterford service which is on the network of InterCity routes connected to the Dublin/ Cork Main Line. In addition, Bus Éireann and other private operators, including long distance couch services and local link bus services, operate on number of routes several times daily.

Waterford Metropolitan Area Transport Strategy, Waterford Planning and Land-use Transportation Study and Local Transport Plans provides an overview and examination of existing transport networks and services within the County and identifies key opportunities and challenges which will arise with regards to transport provision within the period of the County Development Plan and beyond.

4.11.10 Water Services

4.11.10.1 Wastewater

From January 2014, Irish Water became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of wastewater. Irish Water is also responsible for the treatment and disposal of the sludge that is generated from both its water and wastewater treatment plants. The Council is an agent of Irish Water for operations and remains the designated Water Authority for the assessment and approval of on-site wastewater treatment systems and is responsible for surface water drainage in the County.

The provision of well-maintained quality wastewater treatment infrastructure is essential to facilitate sustainable development of the County in line with the Settlement and Core Strategy while also protecting the environment and public health. Irish Water is now responsible for the collection, treatment and disposal of wastewater where public wastewater facilities exist in towns and villages. In unserviced areas and outside the main towns and villages, the main method of sewage disposal is by means of individual septic tanks and proprietary wastewater treatment systems.

The EPA's 2020 report *'Urban Wastewater Treatment in 2019'* identified that:

- Wastewater treatment at 19 towns and cities (including **Portlaw**) did not meet European standards for the treatment of urban wastewater in 2018;
- Raw sewage is released into the environment from 35 urban areas;
- Wastewater from 48 areas (including **Dungarvan** and **Kill**) is the main significant pressure on waters at risk of pollution;
- Wastewater contributed to poor quality bathing waters at three beaches in 2019;
- Discharges from 13 areas must improve to protect freshwater pearl mussels;
- Irish Water must complete assessments of the impacts of wastewater discharges on 26 shellfish waters to inform the need for any improvements; and
- Seven wastewater collection systems have been found non-compliant with European Union requirements.
- **There are four urban areas in the County that are listed as Priority Areas** (**Dungarvan, Kill** and **Portlaw**) where improvements are required to resolve urgent environmental issues with respect to wastewater treatment.

The County is served by Wastewater Treatment Plants (WWTPs) that are in the ownership and maintenance of Irish Water. In unserviced areas and outside the main settlements, the main method of sewage disposal is by individual septic tanks and proprietary wastewater treatment systems. Waterford City is served by the Waterford City WWTP, which has a designed capacity of 190,600 PE.

Irish Water has provided information on wastewater treatment capacity, constraints and projects planned within the County to improve the existing network, to assist the Council in the preparation of the new County Development Plan. This information (shown on Table 4.2 and Table 4.3) indicates where there may be wastewater treatment capacity available to accommodate growth ("headroom") in terms of population equivalent[67] (PE) in areas serviced by a public wastewater treatment plant. Spare treatment capacity is identified as being available in most of the settlements, except for

[67] WWTPs are described in terms of their designed treatment capacity, which is generally expressed as population equivalent (PE). This is a measurement of total organic biodegradable load, including industrial, institutional, commercial and domestic organic load, on a wastewater treatment plant, converted to the equivalent number of PEs. One person is considered to generate 60g of five-day Biochemical Oxygen Demand (BOD) per day. 1 PE is defined as being equivalent to 60g of BOD per day.

Annestown, Fenor, Clonea Power and Bonmahon/Knockmahon. The highest levels of headroom (PE) are available at Waterford City and Suburbs (76,095 PE), Dungarvan (6,574 PE) and Dunmore East (5,756 PE).

Table 4.4 provides information on wastewater treatment plant performance sourced from the EPA's 2019 Annual Environmental Reports (AERs). These Wastewater Agglomerations are subject to Wastewater Discharge Licences issued by The Environmental Protection Agency. WWTPs non-compliant with the Emission Limit Values (ELVs) set in the Discharge Licences include:

- **Tramore WWTP (D0015-01)**; and
- **Portlaw** (D0274-01).

Waterford City and County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned or identified for development are serviced by an adequate wastewater collection and treatment system and in particular, to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the delivery of new or improved wastewater treatment plants.

Irish Water is responsible for the treatment and disposal of the sludge that is generated from both its water and wastewater treatment plants. Irish Water has prepared a National Wastewater Sludge Management Plan 2016-2021 that outlines Irish Water's strategy to ensure a nationwide standardised approach for managing wastewater sludge over a 25-year period. A separate plan will be prepared in relation to sludge produced at drinking water plants.

4.11.10.2 Water Supply

Irish Water is responsible for providing and maintaining adequate public water supply infrastructure throughout the County.

There are 48 Water Resource Zones (WRZ) in County Waterford. The largest water resource zone is the East Waterford WRZ which serves Waterford City and Tramore, as well as a large rural hinterland and several villages. The Dungarvan WRZ serves Dungarvan Town, as well as some smaller villages and rural hinterland.[68] Table 4.3 provides additional information on drinking water capacity and constraints within the County.

Under Section 58 of the Environmental Protection Agency Act 1992, the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above. The most recent available RAL (Q4 of 2020 published in January 2021) identifies one County Waterford drinking water supply:

- **The Dungarvan Water Supply** is listed on the most recent EPA RAL due to poor turbidity removal. This Water Supply Scheme has a supply volume of 5,958 m^3/day, serving a population of 11,472 people. The proposed plan of action to remedy this issue is to upgrade the water treatment plant - install run to waste facility, turbidity monitors on each borehole, flow meters and level probes to be completed by June 2021.

Currently, Irish Water is developing the National Water Resource Plan outlining how to move to a sustainable, secure and reliable public drinking water supply over a 25-year period while safeguarding the environment. It will outline how Irish Water intends to maintain a balance between supply from water sources around the country and demand for drinking water over the short, medium and long term. This will facilitate future planning and ensure provision of sufficient, safe, clean drinking water to facilitate the social and economic growth of the County.

It is the policy of the Council to work in conjunction with Irish Water to protect existing water infrastructure, to maximise the potential of existing capacity and to facilitate the timely delivery of new wastewater services infrastructure to facilitate future growth.

4.11.10.3 Surface Water Drainage

Sustainable Urban Drainage systems (SUDS) can minimise the quantity and increase the quality of surface water runoff as well as mitigating adverse impacts of climate change. SUDS can also provide amenity and biodiversity benefits. The Council seeks to ensure the sustainable management of surface water

[68] Waterford City and County Development Plan 2021-2027

discharges in urban areas through the use of SUDS.

4.11.11 Waste Management

The Southern Waste Region comprises ten local authority areas of: Limerick; Tipperary; Wexford; Carlow; Kilkenny; Waterford; Cork City; Cork County; Kerry; and Clare.

The Southern Waste Management Plan 2015-2021 provides the framework for solid waste management in the region and sets out a range of policies and actions to meet specified mandatory and performance-based targets. It is underpinned by National and European waste legislation and the work carried out will ensure the continued management of waste in a safe and sustainable manner. The plan includes eight Strategic Objectives and three overarching targets:

- 1% reduction per annum in the quality of household waste generated per capita over the period of the Plan;
- Achieve a recycling rate of 50% of managed municipal waste by 2020; and
- Reduce to 0% the direct disposal of unprocessed municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices.

The Southern Waste Management Plan states that the future role of local authorities in waste management will be focused on education, prevention, and resource efficiency activities as well as regulating householders, businesses and waste operators and enforcing waste legislation. Waste infrastructure provided by local authorities will mainly include bring banks and civic amenities.

4.11.12 Existing Problems

There are a number of challenges with respect to the provision of water services infrastructure that are described under Section 4.11 above.

The Water Services Section of Waterford City and County Council will co-operate with Irish Water in providing and maintaining adequate public water supply and wastewater collection and treatment infrastructure throughout the County for the period of the plan and beyond. In conjunction with Irish Water, the Water Services Section of Waterford City and County Council will endeavour to ensure the continued investment in and delivery of improvements to water infrastructure over the Plan period through the implementation of the Capital Investment Plan.

As part of the Plan preparation process, a submission was received identifying periodic discharge of sewage at Tramore Pier. Measures have been integrated into the Plan as adopted related to water services, including those related to waste water.

The provisions of the new County Development Plan will contribute towards protection of the environment with regard to impacts arising from material assets.

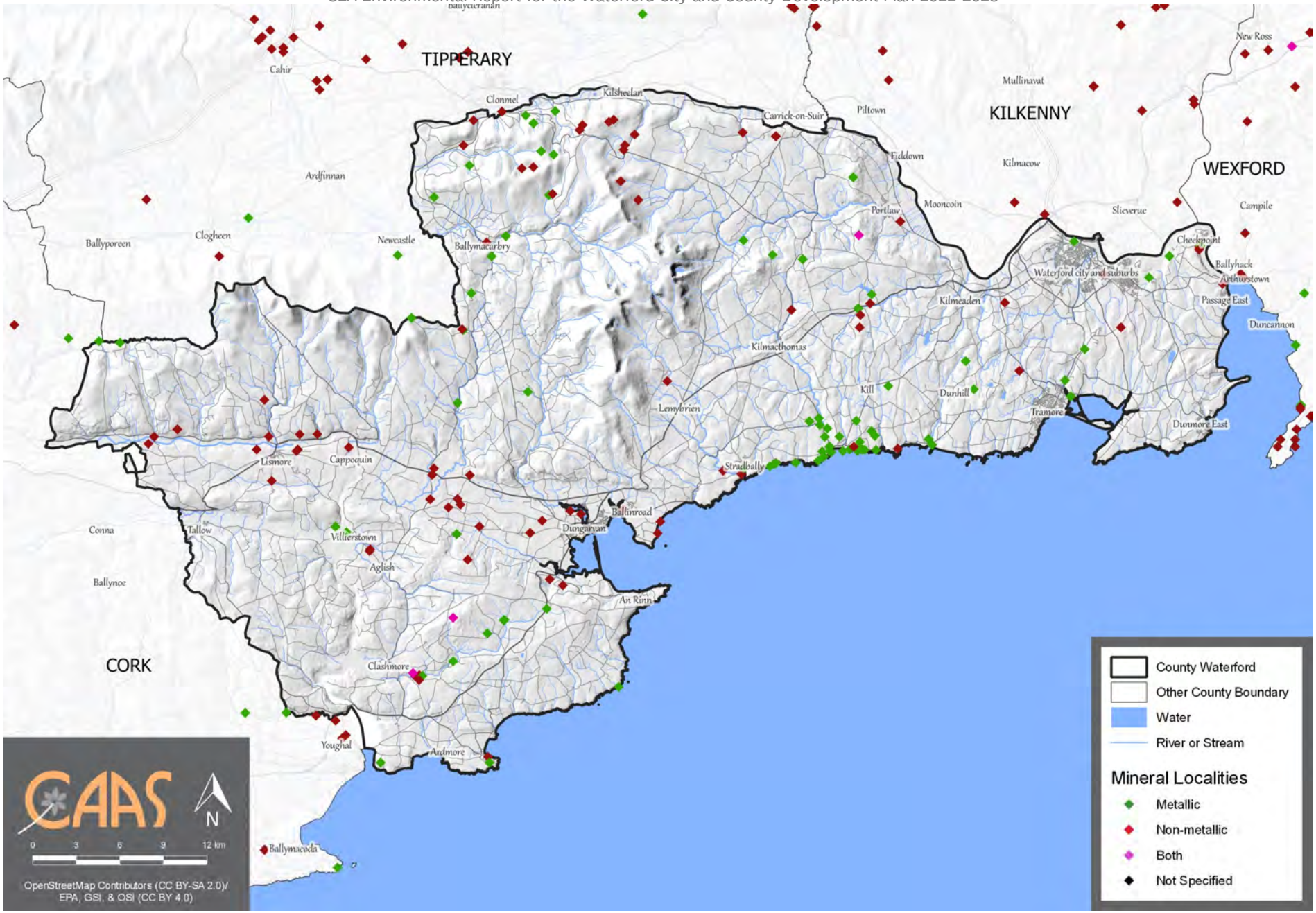


Figure 4.21 Minerals Localities

Table 4.2 Water Services Capacity and Constraints in County Waterford[69]

	Category & Place	WWTP Capacity [* Irish Water data]	Spare WWTP capacity	Waste Water Network	Water Network
1	**City-Metro Area**				
	Waterford City & Suburbs	190600*	76095*		
2	**Key Town**				
	Dungarvan/ Ballinroad	D: 25,000 PE B: 1,500 PE*	D: 6,574 PE* B: 500 PE*		
3A	**Large Urban Town**				
	Tramore	20,000 PE Plant*	2800 PE*		
3B	**Urban Towns**				
	Dunmore East	8,991 PE*	5,756 PE*		
	Portlaw	1,600 PE upgrade to 2,500 PE by 2021*	414 PE*		
	Lismore	3,000 PE*	586 PE*		
4A	**Large Rural Towns**				
	Tallow	2,186 PE*	708 PE*		
	Kilmacthomas	2,100 PE*	883 PE*		
	Cappoquin	1,750 PE*	432 PE*		
	Stradbally	1,914 PE*	1,267 PE*		
	Ardmore	2,934 PE*	1,439 PE*		
4B	**Rural Villages**				
	Aglish	800 PE	300 PE		
	Cheekpoint	750 PE	432 PE		
	Villierstown	700 PE	400 PE		
	Kill	750 PE (ICW)	450 PE		
	Clashmore				
	Dunhill	500 PE (ICW)	300 PE		
	Ballyduff Upper (west)	ST near capacity.	200 PE possibly		
	Annestown	ST @ capacity.			
	Fenor	ST @ capacity			
	Clonea Power	ST @ capacity			
	Rathgormack	ST			
	Touraneena	ICW			
	Ballymacarbry				
	Rural Networks				
	Passage East/ Crooke		NO DATA		
	An Rinn (Heilbhic/ Maoil na Choirne/ Baile na nGall / Old Parish)	1,600 PE*	630 PE*		
	Kilmeaden/ Ballyduff Lower (east)	1,142 PE	883 PE		
	Lemybrien/ Kilrossanty				
	Bonmahon/ Knockmahon	3 X ST @ capacity			
Other					
	Waterford Airport				

[69] Waterford City and County Development Plan 2022-2028

Table 4.3 Additional Wastewater and Drinking Water Capacity and Constraints Information[70]

Category & Place	Waste Water Network Comment	Water Network Comment
City-Metropolitan Area		
Waterford City & Suburbs	Avondale Sewer under pressure. Significant upgrade of sewer to service lands south of Greenfields/Fairfield. Ballygunner pipe network is restrictive. Combined flow is an issue in historic city network, Kilbarry and Gracedieu generally have capacity.	Gracedieu and Ballygunner areas have capacity without impacting on other supplies. Good supply overall.
Waterford City Rural Area	Settlement details given below	Settlement details given below
Key Town		
Dungarvan/ Ballinroad	Ballinroad now pumped to Dungarvan. Treatment plant can be at capacity in peak seasons. Increased pump capacity at Southways can help service Monang Road, Shandon lands are readily serviceable. Ground water infiltration into network at the spring roundabout. Services in Abbeyside are good and gravity sewer by St. Augustine's can service Duckspool area and area north of N25.	Generally good water supply but storage capacity at plant is limited and needs a 5 year lead-in to deliver. Mains undersized on Ballinacourty line.
Large Urban Town		
Tramore	Major network capacity issues to all pump stations. Upgrade pipe size at Monvoy along Glen Road (225/300mm pipe to 450mm pipe) while 3 additional pumps required at An Garraun. Need upgrade of line on Cliff Road due to combined sewer and missed connections. WWTP at capacity 6 months of year due to PE and combined storm flows with overflow into back strand. Space for additional scarrifiers and settling ponds at WWTP. Infiltration of surface/ground water into the network.	Distribution issues especially to the north of church and ring road served from Sporthouse with history of breakages on this 10" main.
Urban Towns		
Dunmore East	New WWTP and network with spare capacity	Pressure poor in Killea and Coxtown.
Portlaw	Upgraded WWTP under commissioning and should be operational in early 2021	Local groundwater source with no capacity for servicing across the town, new connection needed to Adamstown. Small scale residential development is serviceable.
Lismore	WWTP and network with spare capacity	Supply plentiful but storage capacity is low with high leakage locally. Capacity needs review.
Large Rural Towns		
Tallow	Capacity issue and network improvements required.	New water source needed. Capacity for very small scale residential developments.
Kilmacthomas	New WWTP and network with spare capacity	Water supply and distribution is generally good, capacity needs review. Topography may be an issue in terms of pressure.
Cappoquin	New WWTP with spare capacity.	Capacity needs review
Stradbally	New WWTP with spare capacity.	Capacity available
Ardmore	New WWTP with spare capacity.	Parts of town ok but network needs to be upsized and extended.
Rural Villages		
Aglish	Capacity available.	Capacity available.
Cheekpoint	New WWTP with spare capacity.	Fouloun Reservoir (fed from Adamstown) at capacity – receives booster-pumped water.
Villierstown	Capacity available.	Capacity available.
Kill	Capacity available.	Capacity available
Clashmore		Capacity available.
Dunhill	ICW and surface bioretention ponds also with spare capacity.	Small developments possible with DPI but ground water difficult to treat consistently.
Ballyduff Upper (west)	Capacity needs review.	Capacity available.
Annestown		Capacity uncertain.
Fenor		Capacity uncertain.
Clonea Power	C. 2 acres of land acquired by WCCC near river for ICW but flooding and Pearl Mussel may be an issue with its location.	Capacity available.
Rathgormack		Capacity uncertain.
Touraneena	Extension to ICW required to facilitate substantive development.	Capacity uncertain.
Ballymacarbry	Combined flow resulting for heavy rainfall events causing flooding in septic tank. Pinewood on board to support new ICW and bioretention measures.	Borehole struggles during dry periods and yield assessment needed to support substantial development.
Other		**General capacity to service <10 houses.**
Waterford Airport	Existing ST needs upgrade to ICW or similar to support substantial development. Concern raised re collisions with birds previously by Airport where ICW proposed.	Capacity available
Rural Networks		
Passage East/ Crooke	While Crooke is connected to the WWTP, no connection to date from Passage to WWTP. No capacity in passage for new development of scale due to topography and access.	Fouloun Reservoir (318m3 storage capacity) at capacity and does not meet a required 24hr storage capacity – receives water from Adamstown
An Rinn (Heilbhic/ Maoil na Choirne/ Baile na nGall / Old Parish)	Major network capacity issues. Infiltration into sewer network. Pump station and network upgrade required to deal with current loading.	Capacity available
Kilmeaden/ Ballyduff Lower (east)	New WWTP with spare capacity.	Kilmeaden supply good for now.
Lemybrien/ Kilrossanty	WWTP significantly overloaded, upgrade required to deal with current loading.	Capacity uncertain, supply from Kilrossanty WTP – no recent data from borehole; capacity unknown.
Bonmahon/ Knockmahon	Multiple tanks need to be connected and taken to a new treatment site. Preliminary report done.	Capacity available.

[70] Waterford City and County Council

Table 4.4 Wastewater Treatment Plant Performance
(sourced from EPA's 2019 Annual Environmental Reports)

Plant name and Reference	Treatment Provided	Overall Compliance (Pass/Fail)	Parameter Failed	Cause of Exceedances and Significance of Results (Water Quality)	Organic Capacities (PE)		
					As Constructed	Collected Load (peak week)	Remaining
Waterford City D0022-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	190,600	116,576	74,024
Tramore[71] D0015-01	Secondary	Fail	Ammonia-Total (as N) mg/l	Cause: WWTP not designed for N removal • The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence. • The discharge from the wastewater treatment plant does not have an observable impact on the water quality.	20,000	15,183	4,817
Lismore D0176-01	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	3,000	2,148	852
Cappoquin D0272-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	2,728	1,115	1,613
Tallow D0273-01	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	2186	2295	0
Portlaw D0274-01	Tertiary	Fail	ortho-Phosphate (as P) – unspecified mg/l Suspended Solids mg/l	Cause: These ELV exceedances relate to the commissioning of the new sections of Plant as part of the WWTP upgrade works. • The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence. • The ambient monitoring results meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009. • The discharge from the wastewater treatment plant does not have an observable impact on the water quality. • The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status	2,500	1,796	704
Kilmacthomas D0275-01	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	2,110	1,173	937
Baile Na nGall D0358-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	1,600	30	1,570
Ardmore D0162-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	2,934	1,312	1,622
Dunmore East D0170-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	8,991	3,436	5,555
Dungarvan D0017-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	25,000	20,103	4,897
Stradbally D0353-01	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	1,914	563	1,351

[71] Note that as part of the Plan preparation process, a submission was received identifying periodic discharge of sewage at Tramore Pier. Measures have been integrated into the Plan as adopted related to water services, including those related to waste water.

4.12 Cultural Heritage

4.12.1 Archaeological Heritage

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological sites and monuments vary greatly in form and date; examples include earthworks of different types and periods, (e.g. early historic ringforts and prehistoric burial mounds), megalithic tombs from the Prehistoric period, medieval buildings, urban archaeological deposits and underwater features.

Waterford is Ireland's oldest city and has a rich and significant archaeological heritage, with the largest collection of medieval urban defences in Ireland with six intact towers, and over 700m meters of wall. There are many sites of significant archaeological interest in County, including the remains of a 9th century settlement in Woodstown along the River Suir – a unique and internationally important Viking site.

Archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts.

The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped. It is available from the National Monuments Service and at archaeology.ie.

The term 'monument' includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. All monuments in existence before 1700 A.D. are automatically considered to be historic monuments within the meaning of the Acts. Monuments of architectural and historical interest also come within the scope of the Acts. Monuments include: any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections; any cave, stone or other natural product, whether or not forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position; any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or, ritual, industrial or habitation site; and any place comprising the remains or traces of any such building, structure or erection, any such cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site, situated on land or in the territorial waters of the State', but excludes 'any building or part of any building, that is habitually used for ecclesiastical purposes' (National Monuments Acts 1930-2004).

A recorded monument is a monument included in the list and marked on the map, which comprises the RMP set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Notification within which requirements for notifications of proposed works apply.

A sites and Monuments Record (SMR)[72] is a manual containing a numbered list of all certain and possible monuments accompanied. An Urban Archaeology Survey was completed in 1995 and contained reports on historic towns dating to before 1700 A.D. with a view to delineating zones of archaeological potential (SMR Zones of Notification). The SMR formed the basis for issuing the RMP.

There are hundreds of Recorded Monuments within the County, including graveyards, castles, forts, crosses and churches. Figure 4.22 shows the spatial distribution of recorded monuments and associated SMR Zones of Notification in the County. Archaeological heritage within Waterford City, including Recorded Monuments, RMP and SMR Zones of Notification, are mapped on Map 12 in Appendix III.

Clusters of archaeological heritage in the County are concentrated in the foothills of the mountains, along the coast and within and surrounding towns and villages. There are

[72] The RMP was issued for each county between 1995 and 1998 in a similar format to the existing SMR. However, the RMP differs from the earlier lists in that, as defined in the Act, only monuments with known locations or places where there are believed to be monuments are included. The large archive and supporting database are managed by the National Monuments Service and the records are continually updated and supplemented as additional monuments are discovered. (https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland).

lower concentrations in the central upland areas.

There are 12 Monuments in State Care (five in State Ownership and seven in State Guardianship)[73] within the County, including:

- Ardmore;
- Ballynageeragh;
- Kiltera;
- Drumlohan;
- Dungarvan Castle;
- Gaulstown;
- Knockeen;
- Matthewstown;
- Mothel Abbey;
- Double Tower;
- Reginald's Tower; and
- The French Church (Waterford).

County Waterford has significant industrial heritage with many sites documented by the National Monuments Service, including its industrial mining heritage within the Copper Coast Global UNESCO Geopark.

The Underwater Archaeology Unit was established within the National Monuments Service to manage and protect Ireland's underwater cultural heritage, including the quantification of the underwater resource and assessing development impacts in order to manage and protect this aspect of Ireland's heritage. The Shipwreck Inventory is principally a desktop survey with 64nformationn gathered from a broad range of cartographic, archaeological and historical sources, both documentary and pictorial. Wrecks over 100 years old and archaeological objects found underwater are protected under the National Monuments (Amendment) Acts 1987 and 1994. Significant wrecks less than 100 years old can be designated by Underwater Heritage Order on account of their historical, archaeological or artistic importance. Such Orders can also be used to designate areas of seabed or land covered by water to more clearly define and protect wreck sites and archaeological objects. Under the legislation all diving on known protected wreck sites or with the intention of searching for underwater cultural heritage is subject to licensing requirements.

Rivers, estuaries and marine and coastal areas within and adjacent to the County may contain many features and finds associated with riverine heritage such as shipwrecks, piers, quay walls, fords, stepping stones and associated archaeological objects and features.

4.12.2 Architectural Heritage

The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all: structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest.

Records of Protected Structures are legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended. Protected structures are defined in the Planning and Development Act 2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

There are 1,477 entries to the Record of Protected Structures within the County, including 677 in the City. Similar to the general spatial spread of archaeological heritage, clusters of architectural heritage are indicated within the County's settlements as shown on Figure 4.23.

Architectural designations within Waterford City are mapped on Map 13 in the Appendix III and include entries to the RPS, NIAH and ACAs.

In relation to a protected structure or proposed protected structure, the following are encompassed:

- The interior of the structure;
- The land lying within the curtilage[74] of the structure;
- Any other structures lying within that curtilage and their interiors; and

[73] This list of National Monuments in State care includes those which are in the ownership and guardianship of the Minister for the Environment, Heritage and Local Government.

[74] Curtilage is normally taken to be the parcel of ground immediately associated with the Protected Structure, or in use for the purposes of the structure. Protection extends to the buildings and land lying within the curtilage. While the curtilage sometimes coincides with the present property boundary, it can originally have included lands, features or even buildings now in separate ownership, e.g. the lodge of a former country house, or the garden features located in land subsequently sold off. Such lands are described as being attendant grounds, and the protection extends to them just as if they were still within the curtilage of the Protected Structure.

- All fixtures and features that form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

Waterford's rich industrial and maritime heritage (such as mills, quays and lighthouses) and vernacular heritage (including town houses, thatched cottages and farm complexes) also contribute significantly to the built heritage character of the County.

In addition to Protected Structures, the Planning and Development Act provides the legislative basis for the protection of Architectural Conservation Areas (ACAs). An ACA is a place, area or group of structures or townscape that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contributes to the appreciation of protected structures, whose character it is an objective to preserve in a development plan. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA that might alter the character of the structure or the ACA. The ACAs in the County are mapped on Figure 4.23 and listed below.

Existing ACAs are designated in the following settlements:

- Dungarvan;
- Waterford City (Trinity); and
- Waterford City (South Quay).

ACAs are proposed for designation in the following settlements:

- Aglish;
- Copper Coast;
- Passage East;
- Annestown;
- Clashmore;
- Portlaw;
- Ardmore;
- Clonea Power;
- Stradbally;
- Ballyduff West;
- Dunmore East;
- Tallow;
- Cappoquin;
- Kilmacthomas;
- Tramore;
- Cheekpoint;
- Lismore; and
- Waterford City (alteration and new in Waterford City).

The National Inventory of Architectural Heritage (NIAH) is a State initiative under the administration of the Department of Culture, Heritage and the Gaeltacht and was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister of Culture, Heritage and the Gaeltacht to the local authorities for the inclusion of particular structures in their Record of Protected Structures. Waterford has a rich heritage of gardens and designed landscapes. These are usually associated with the country houses and demesnes, such as Curraghmore, Cappoquin, Dromana and Mount Congreve. The NIAH includes historic gardens and designed landscapes. Figure 4.23 shows entries to NIAH within the County.

4.12.3 Existing Problems

No existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

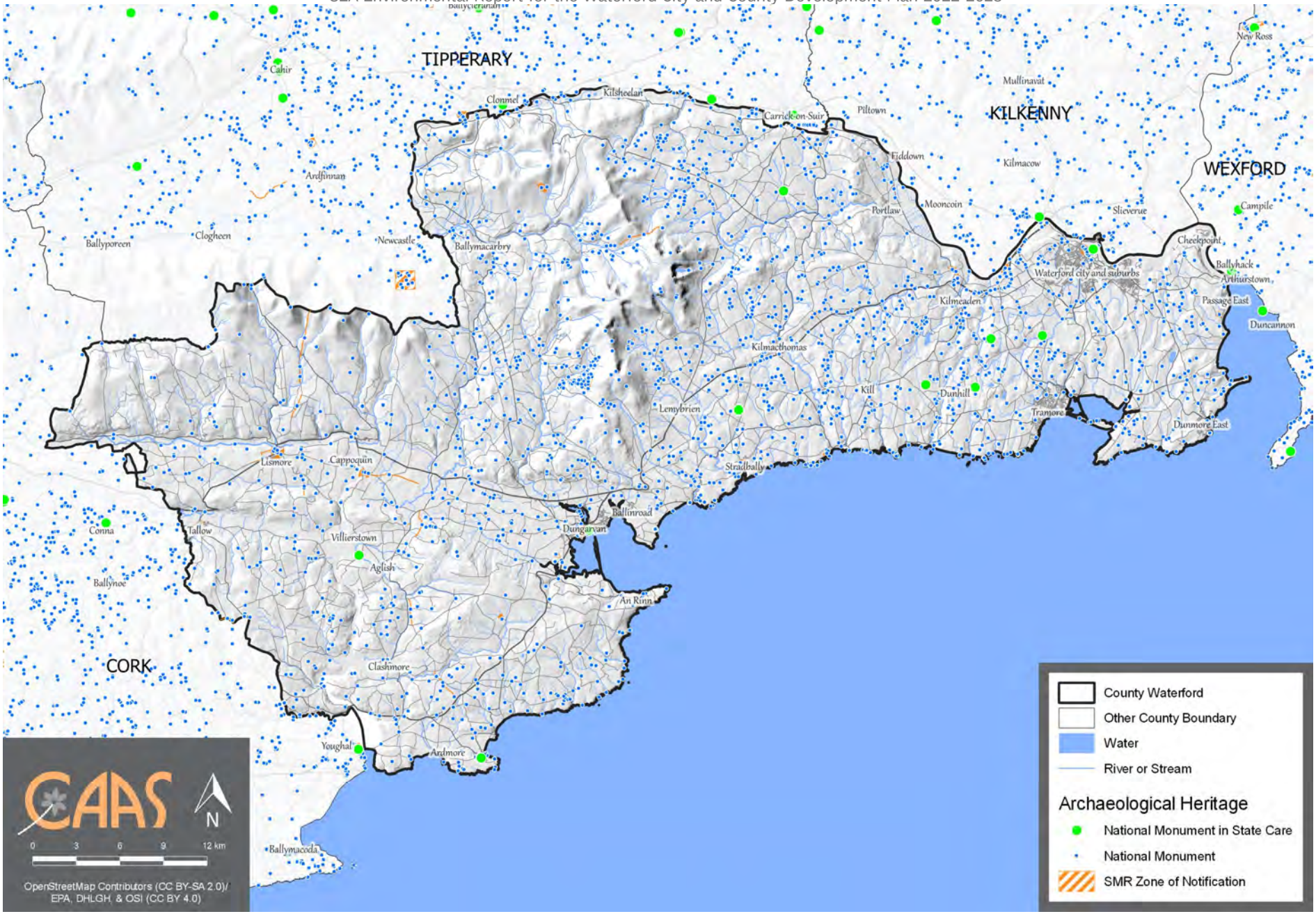


Figure 4.22 Archaeological Heritage

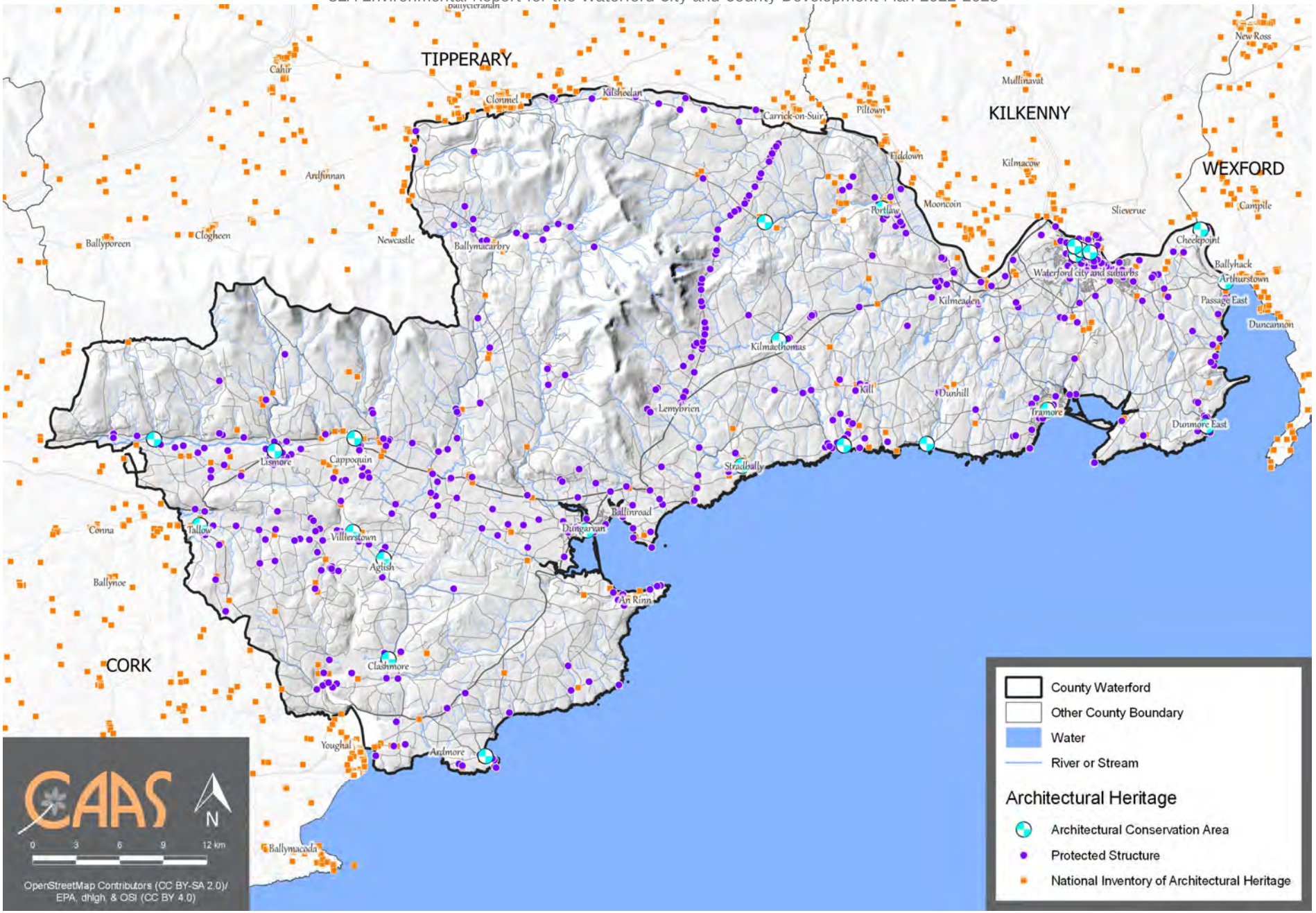


Figure 4.23 Architectural Heritage

4.13 Landscape

4.13.1 Introduction

Article 1 (a) of the European Landscape Convention provides a definition of landscape as follows; "Landscape means an area, as perceived by people whose character is the result of the action and interaction of natural/or human factors". The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2000 as amended, which requires that Development Plans include objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

Waterford has a very diverse landscape including uplands, waterway corridors, demesne and coastal landscapes. Mountain regions, including the Comeragh Mountains, are found mainly in the north-west and centre of the County, and several south-flowing river systems, including the Suir, the Blackwater and the Bride, and a rugged coastline with many coves and beaches in the east and south-east of the County. The east of the County is low-lying and has a concentration of lakes and wetlands.

4.13.2 Landscape Character Assessment [75]

The European Landscape Convention was ratified in Ireland in 2002, this required EU Member States to adopt national measures to promote landscape, planning, protection and management.

The purpose of landscape character assessment is to provide the foundation for policy formulation and decision making for landscape management.

The Landscape and Seascape Character Assessment for Waterford City and County identifies six landscape types:

- Coastal;
- River Corridor and Estuary;
- Farmed Lowland;
- Foothill;
- Upland; and
- Urbanised.

These landscapes are subject to varying forces for change and have varying capacity to accommodate development that can impact on that particular landscape. The most sensitive areas are the most impacted by development and therefore developments which are likely to create a significant environmental and particularly visual impact will best be absorbed in areas where the landscape is most robust, i.e. have the capacity to absorb development without significantly changing its character.

The Plan area encompasses many sites and vantage points from which views over areas of great natural beauty, local landmarks, historic landscapes and adjoining Counties may be obtained. In addition to scenic views, the County also contains important prospects i.e. prominent landscapes or areas of special amenity value or special interest which are visible from the surrounding area.

4.13.3 Landscape Designations in Adjacent Counties

County Wexford borders County Waterford to the east, adjoined by the Waterford Harbour. The Landscape Character Assessment for Wexford identifies four Landscape Character Units: Uplands; Lowlands; River Valleys; and Coastal. Sensitive areas within these Units include: Hills and Ridges; Water Bodies; The Islands; Coastal Promontories; The Hook Peninsula; Screen Hills; and Slobs.

County Kilkenny borders County Waterford to the north-east. There are four Landscape Character Types designated in County Kilkenny: Upland Areas; Lowland Areas; River Valleys; and Transitional Areas. These Areas cover a number of sub-areas including the South Kilkenny Lowlands adjacent to County Waterford. Other landscape designations within County Kilkenny include Scenic Routes and Scenic Views.

County Tipperary borders County Waterford to the north. There are 23 Landscape Character Areas identified within County Tipperary. Knockmealdown Mountain Mosaic, River Suir Central Plain and Urban and Fringe Area Landscape Character Areas occur adjacent to

[75] Any updates to the existing Landscape Character Assessment will inform subsequent revisions of this SEA Environmental Report.

County Waterford. Other landscape designations include a number of Scenic Views and Prospects for Protection.

County Cork borders County Waterford to the south-west. Landscape of County Cork is divided into 16 Landscape Character Types. Landscape Character Types are sub-divided into 76 Landscape Character Areas. Landscape types are evaluated in terms of Landscape Value, Landscape Sensitivity and Landscape Importance.

4.13.4 Existing Environmental Problems

New developments have resulted in changes to the visual appearance of lands within the County however legislative objectives governing landscape and visual appearance were not identified as being conflicted with.

4.14 Overlay of Environmental Sensitivity Mapping

In order to identify where most sensitivities within the County occur, a number of the environmental sensitivities described above were weighted and mapped overlapping each other.

Figure 4.24 provides an Overlay of Environmental Sensitivities in the County. Environmental sensitivities are indicated by colours which range from higher to lower sensitivity. The map was prepared using Geographical Information System (GIS) software that allowed for a weighting system to be applied with differentiation in certain layers as follows:

- European sites – SACs and SPAs (10 points);
- Other Ecological designations – pNHAs (5 points);
- Sensitive Landcover Categories (10 points);
- Margaritifera Sensitive Areas (5 points);
- WFD Status of Surface moderate and unassigned ecological status (5 points);
- WFD Status of Surface water poor ecological status (10 points);
- Groundwater vulnerability (aquifers which are extremely vulnerable - 10 points; and highly vulnerable - 5 points);
- Source Protection Areas (Inner Protection Area and Group Scheme Preliminary Source Protection Areas - 10 points; Outer Protection Area - 5 points);
- WFD RPA Nutrient Sensitive Rivers, Lakes and Estuaries (10 points) and Rivers in Nutrient Sensitive Areas (5 points);
- WFD RPA Rivers and Lakes for Drinking Water (10 points);
- WFD RPA Salmonid River Regs (S.I. 293 only) – 10 points; and Surface Waters and Groundwater in Salmonid Regs 5 points;
- WFD RPA Rivers in Salmonid Regs (5 points);
- County Geological Sites (10 points);
- Copper Coast UNESCO Global Geopark (10 points);
- GSI Landslide Susceptibility (High or High Inferred – 10 points; Moderately High or Moderately High Inferred – 5 points);
- Preliminary Flood Risk Assessment Flood Zone A (10 points) and Flood Zone B (5 points); and
- Cultural Heritage including Architectural Conservation Areas, entries to the Record of Protected Structures, entries to the Record of Monuments and Places, National Monuments in State Care and entire to the National Inventory of Architectural Heritage (10 points).

Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration. However, the occurrence of environmental sensitivities does not preclude development; rather it flags at a strategic level that the mitigation measures - which have been integrated into the Plan - will need to be complied with in order to ensure that the implementation of the Plan contributes towards environmental protection.

The overlay mapping shows that environmental sensitivities are not evenly distributed throughout the County. Most of the County is identified as having low to moderate levels of sensitivity.

The most sensitive areas include:

- Upland and foothill areas of the County, including the Comeragh Mountains, on account of European Site ecological designations, archaeological heritage and landscape sensitives and areas of extreme and high groundwater vulnerability;

- Parts of the coastline and adjacent coastal areas, including Waterford Estuary, Tramore dunes and coast, the mid-Waterford Coast, Dungarvan Harbour, Helvic Head to Ballyquinn, Ardmore Head and the Blackwater Estuary, on account of European Site and proposed Natural Heritage Area and UNESCO Global Geopark designations, WFD RPA designations, areas of extreme groundwater vulnerability and coastal flood risk;

- Certain locations and areas within the existing built-up footprint of the County, including Waterford City, on account of cultural heritage designations, including entries to the Record of Monuments and Places, Entries to the Record of Protected Structures and Architectural Conservation Areas; and

- Certain areas that are adjacent to streams and rivers, on account of flood risk, including those areas along the Rivers Suir and Blackwater and their tributaries.

The EPA-funded Environmental Sensitivity Mapping Web Tool could assist in lower-tier consideration of plans and projects.

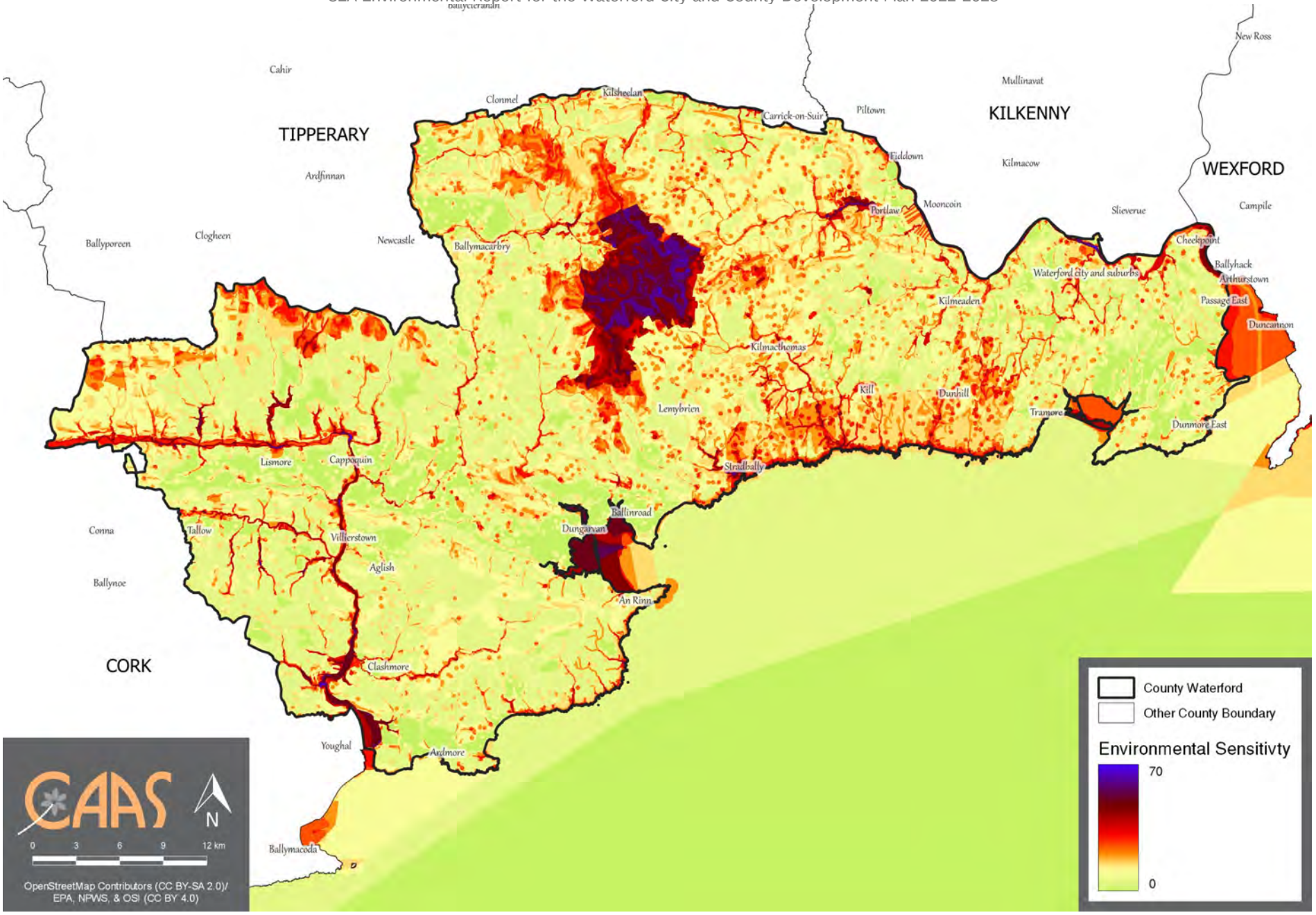


Figure 4.24 Overlay of Environmental Sensitivities in Waterford City and County

Section 5 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and which are required to be implemented.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if – in the case of adverse effects – unmitigated.

The SEOs are linked to indicators which can facilitate monitoring the environmental effects of the Plan as well as identifying targets which the Plan can help work towards.

All SEOs, indicators and targets are provided on Table 5.1 overleaf.

Further detail on legislation, plans and programmes are provided under Section 2 (and associated Appendix I ''Relationship with Legislation and Other Policies, Plans, and Programmes'') and Section 4.

Given the position of the Development Plan in the land use planning hierarchy beneath RSES, the measures identified in the RSES SEAs, including the Southern RSES SEA, have been used – as they are or having been slightly modified – in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 5.1 Strategic Environmental Objectives (SEOs), Indicators and Targets

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Biodiversity, Flora and Fauna	**BFF**	No net contribution to biodiversity losses or deterioration	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Action Plan and its targets • To protect, maintain and conserve the City and County's natural capital	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, the County Heritage Plan 2017-2022
				• Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022
				• SEAs and AAs as relevant for new Council policies, plans, programmes etc.	• Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.
				• Status of water quality in the City and County's water bodies	• Included under Water below
				• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"
Population and Human Health	**PHH**	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard the City and County's citizens from environment-related pressures and risks to health and well-being	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail"	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail" • By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)
				• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan
				• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures
				• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Soil (and Land)	**S**	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield sites within the City and County • Safeguard areas of prime agricultural land and designated geological sites	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Maintain built surface cover nationally to below the EU average of 4% as per the NPF • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels across the City and County
				• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements
				• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission
Water	**W**	Protection, improvement and sustainable management of the water resource	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion, particularly coastal areas • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan
				• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
Material Assets	**MA**	Sustainable and efficient use of natural resources	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the City and County - this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development	• Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
			• Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures
Air	**A**	Support clean air policies that reduce the impact of air pollution on the environment and public health	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels	• Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% • NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels • Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter
Climatic Factors [76]	**C**	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	• To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into the City and County's infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • Promote development resilient to the effects of climate change • Promote the use of renewable energy, energy efficient development and increased use of public transport	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets
				• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050
				• Share of renewable energy in transport	• Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan
				• Carbon dioxide (CO_2) emissions across the electricity generation, built environment and transport sectors	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared

[76] Please also refer to relevant legislation and requirements under Section 4.10, Section 8.6, Section 8.8.9 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically and include those under the headings of Electricity, Built Environment, Transport, Agriculture, Forestry & Land Use and Enterprise.

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
					to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors
				• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating
				• Proportion of journeys made by private fossil fuel-based car compared to 2016 levels	• Decrease in the proportion of journeys made by residents of the City and County using private fossil fuel-based car compared to 2016 levels
				• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures
Cultural Heritage	**CH**	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage	• Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan
				• Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan
Landscape	**L**	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan

Section 6 Description of Alternatives

6.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Available reasonable alternatives for the City and County Development Plan are considered under Types 1 to 8 detailed below. Where alternatives are identified by the planning authority, these are assessed in Section 7.

6.2 Limitations in Available Alternatives

The Plan is required to be prepared by the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan.

The alternatives available for the Plan are limited by the provisions of higher-level planning objectives, including those of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Region and associated Waterford Metropolitan Area Strategic Plan (MASP). These documents set out various requirements for the content of the Plan including on topics such as settlement typology, land use zoning and the sustainable development of rural areas.

6.3 Type 1: Alternatives for an Ecosystem Services Approach to the Plan

Although many natural capital[77] and ecosystem[78] service issues have been taken into account over previous Plan periods, the importance of these in fulfilling environmental obligations has increasingly emerged. An Ecosystems Services Approach would provide a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. In terms of an ecosystems services approach to the plan, two scenarios were explored:

- Alternative A: A Plan that takes a more focused Ecosystems Services Approach.

  This alternative would continue the work carried out in previous plans in relation to habitat mapping and protection of local sites of biodiversity interest such as wetlands.

  The Waterford Wetland Survey would be completed in recognition of the value these habitats provide for biodiversity, flood management and carbon capture. Development of integrated constructed wetlands would be encouraged where appropriate for smaller settlements. Biodiversity policies would seek to prevent biodiversity loss and also design in biodiversity gain/enhamcement where possible. Increased tree planting and retention and establishment of hedgerows would be promoted in the interests of ecological connectivity and in support of climate change adaptation measures.

  Nature based catchment management systems would be prioritised in flood alleviation works where possible, or least in tandem with hard engineering options where appropriate. Natural Water Retention Measures and SuDs would be prioritised for management of surface water or least in tandem with hard engineering options where appropriate.

[77] Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals)
[78] Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing

- Alternative B: A Plan that does the basics but takes a less focused Ecosystems Services Approach

6.4 Type 2: Alternatives for an infrastructure led approach to the Plan

In terms of infrastructure led approach to the plan, two alternatives can be considered:

- **Alternative A:** A Plan that takes a strict infrastructure led approach.

  This alternative ensures that the sustainable development of settlements occurs, with new development accompanied by adequate and appropriate infrastructure.

  This alternative would also facilitate the development of a concentric Waterford City, both north and south of the River Suir, and other key enablers for the MASP area.

  It is important to note that an infrastructure-led approach does not exclude the consideration of nature-based solutions, and that such solutions would be the preferred priority, followed by an integrated hard engineered and nature-based solution, or solely a hard engineered approach.

- **Alternative B:** A Plan that does not takes a less strict infrastructure led approach.

  This alternative considers existing and future demand and capacity in infrastructure but the allocation of growth and associated policy responses are looser than under Alternative A. Decisions relating to infrastructure assessment are left to project level wherever this is possibly.

6.5 Type 3: Alternatives for Positioning under the Settlement Hierarchy

The NPF and RSES set out clear frameworks to guide the identification of settlement hierarchies across the country and region respectively. The settlement typology and MASP provisions have been considered, and it can be confirmed that no realistic alternatives are available for placing of individual settlements under alternative typologies, taking into account the objectives of the higher-level NPF and Southern RSES.

6.6 Type 4: Alternatives for Population Allocations

The RSES has identified population targets for Waterford City and County, based on the principles of regional growth set out in the NPF. The population allocations and targets underpinning the Core and Settlement Strategies will be consistent with the population provisions of the NPF and RSES, and settlement typology. It is considered that any alternatives which deviate materially from such a population allocation would be inappropriate in terms of compliance with national and regional policy, and achieving a pattern of growth which is strategic and sustainable.

While recognising the role of the population targets set out in the NPF, RSES and MASP, the development plan remains cognisance of the potential to exceed these targets for strategic reasons, some of which may include the successful delivery of the Key Enables as outlined in the RSES for the Waterford MASP, investment and delivery of the Technological University of the South-East, extended facilities and provision of regular services to and from Waterford Airport, realisation of pent up and undersupply of demand in the housing market, and the local context of land ownership, availability and release. The successful delivery of any or all of these may require a strategic review of the Core Strategy and the development plan during its lifetime in order to deliver Waterford City as a city of scale and a regional economic driver.

6.7 Type 5: Alternatives for Rural Waterford

Type 5 (i) Rural Areas under Strong Urban Influence/Pressure

- **Type 5 (i) Alternative A:** Designate Rural Areas under Strong Urban Influence/ Pressure

  Designate Rural Areas under Strong Urban Influence/ Pressure that require various criteria to be demonstrated and met in advance of planning permission being granted for a single dwelling for permanent occupation. The majority of rural county Waterford lies with the hinterlands or commuter catchments of either Cork or Waterford cities, west and east respectively, and the larger town of Clonmel to the north.

- **Type 5 (i) Alternative B:** Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.

Type 5 (ii) Villages/Clusters/Nodes and Serviced Sites

- **Type 5 (ii) Alternative A:** Provide focus to and targeted policies/objectives for rural villages, clusters and nodes to act as a viable alternative to one-off housing in the open countryside.

  The identification of rural villages, clusters and nodes to facilitate a choice in providing for the housing and community needs of rural areas is an important element of supporting a choice and mix of housing within Waterford. This alternative would facilitate this by way of identifying such locations, and setting out development boundaries within which development may take place, subject to assessment in terms of design, siting, location and service provisions. More detailed land-use zoning objectives would be applied to larger villages, with the understanding that such areas would support a more compact form and greater quantum of development.

- **Type 5 (ii) Alternative B:** Rural villages, clusters and nodes are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside

6.8 Type 6: Alternatives for Densities

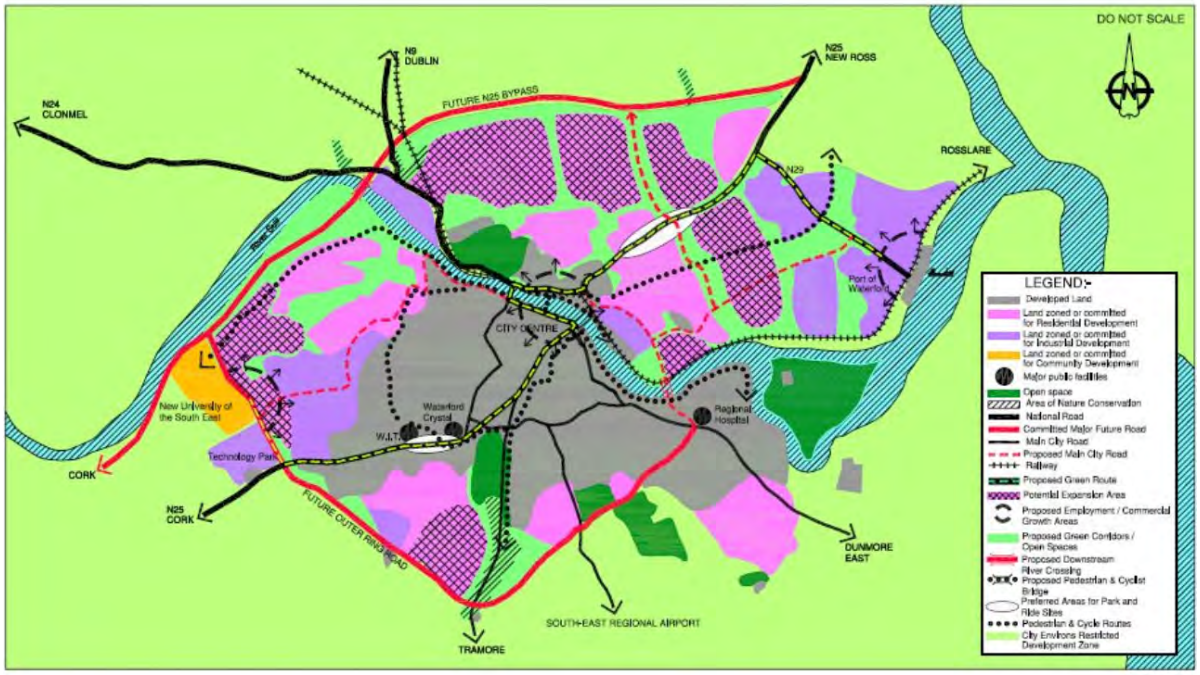
Alternatives identified relating to densities comprise:

- **Alternative A:** Application of a single standard residential density across all settlements.

- **Alternative B:** Application of different densities at different locations, as appropriate; higher densities where sustainable transport mode opportunities are available and lower densities where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network.

6.9 Type 7: Waterford City - Concentric Approach

Incorporating the concentric model approach to the development of Waterford city as set out in the Waterford Planning Land Use and Transportation Strategy, RSES and MASP, seek to ensure that the future growth pattern and expression of the city will facilitate a more balanced expansion of the city over the lifetime of the NPF, and beyond. Furthermore, the MASP and RSES stress the need to ensure that a dedicated implementation body, in collaboration with the Southern Regional Assembly, Kilkenny County Council, government agencies, statutory and other service providers, is established to secure the sustainable growth of the city.



Waterford Planning Land-Use and Transportation Strategy (PLUTS) 2004 - 2020

Taking cognisance of these high-level objectives, the development plan has considered that there is no suitable alternative to this model of city growth which would be consistent with national and regional policy.

6.10 Type 8: Alternatives for Land Use Zoning

Land use zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Southern RSES.

The Council have identified reasonable alternatives for certain settlements, where these are available taking into account the various requirements set out in the higher-level NPF and Southern RSES.

The findings of the examination of available reasonable land use zoning alternatives for settlements is provided at Table 6.1. Maps for each of these alternatives are provided in Appendix I “Indicative Mapping of Land Use Zoning Alternatives”.

Table 6.1 Available Strategic Reasonable Alternatives

Land Use Zoning	Available Alternatives	Not available
Waterford City & Suburbs	Alternative A: More Compact Alternative B: Less Compact	
Dungarvan/ Ballinroad	Alternative A: More Compact Alternative B: Less Compact	
Clonmel	Alternative A: More Compact Alternative B: Less Compact	
Environs	Alternative A: More Compact Alternative B: Less Compact	
Tramore	Alternative A: More Compact Alternative B: Less Compact	
Dunmore East	Alternative A: More Compact Alternative B: Less Compact	
Portlaw	Alternative A: More Compact Alternative B: Less Compact	
Lismore	Alternative A: More Compact Alternative B: Less Compact	
Gaeltacht na nDéise	Alternative A: More Compact Alternative B: Less Compact	
Carrick on Suir Environs		✓

Section 7 Evaluation of Alternatives

7.1 Introduction

This section provides a comparative evaluation of the likely significant environmental effects[79] of implementing available alternatives that are described in Section 6. This determination sought to understand whether each alternative was likely to improve conflict with or have a neutral interaction with the receiving environment.

7.2 Methodology

The relevant aspects of the current state of the environment (see Section 4) and the Strategic Environmental Objectives (see Section 5 and Table 7.1) are used in the assessment of alternatives.

The degree to which effects can be determined is limited as implementation of the Plan will involve assessment, consideration and decision-making associated with lower tier plans and individual projects. Nonetheless a comparative evaluation of the various alternatives can be provided.

Table 7.1 Strategic Environmental Objectives[80]

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	**BFF**	No net contribution to biodiversity losses or deterioration	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Action Plan and its targets • To protect, maintain and conserve the City and County's natural capital
Population and Human Health	**PHH**	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard the City and County's citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	**S**	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield sites within the City and County • Safeguard areas of prime agricultural land and designated geological sites
Water	**W**	Protection, improvement and sustainable management	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected

[79] These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.
[80] See also Section 5

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
		of the water resource	water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion, particularly coastal areas • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	**MA**	Sustainable and efficient use of natural resources	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the City and County - this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart-buildings, cities and grids
Air	**A**	Support clean air policies that reduce the impact of air pollution on the environment and public health	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels
Climatic Factors	**C**	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	• To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into the City and County's infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • Promote development resilient to the effects of climate change • Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	**CH**	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	**L**	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

7.3 Detailed Assessment of Alternatives

7.3.1 Effects Common to all Alternatives

Each of the alternatives would be part of a wider Plan envisaging – in compliance with the robust policy framework in place at national, regional and local level – sustainable development and compact growth in Waterford City and County generally. As such, common environmental effects (as detailed on Table 7.2) would be present under Plans adopting each of the different alternatives, albeit to varying degrees.

Table 7.2 Effects common to Plans adopting each of the different alternatives

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.
Population and Human Health	• Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.
Soil	• Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond.	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.

Environmental Component	• Significant Positive Effect, likely to occur	• Potentially Significant Adverse Environmental Effects, if unmitigated
Material Assets	• Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond.	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere in the City and County by facilitating development within existing settlements.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

7.3.2 Assessment of Type 1: Alternatives for an Ecosystem[81] Services Approach to the Plan

Alternative A: "A Plan that takes a more focused Ecosystems Services Approach" would integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Principles that would be integrated throughout the Plan, in a coordinated and comprehensive manner, would include:

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function;
- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation or recreation, culture and quality of life; and
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

[81] Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing

This would mean that there would be:

- An increased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues, such as the management of air quality, noise pollution, light pollution, pollination, flood risk, water bodies and river basins and natural resources supporting energy production and recreation; and
- A decreased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Alternative B: "A Plan that does the basics but takes a less focused Ecosystems Services Approach" would not integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

A less-interventionist approach to Ecosystems Services would provide less focus and attention to Ecosystem Services than would be the case under Alternative A and would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

As has been the case over previous plan periods, many natural capital and ecosystem service issues would be integrated into individual Plan Policy Objectives and into decision making at lower tiers of plan preparation and development management. However, this approach would be less coordinated and comprehensive than would be the case under Alternative A.

This would mean that there would be:

- A decreased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues; and
- An increased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Selected Type 1 Alternative for the Plan: Alternative A.

Type 1 alternatives are assessed against Strategic Environmental Objectives on Table 7.3.

Table 7.3 Assessment[82] of Type 1 Alternatives against Strategic Environmental Objectives

Alternative (selected alternative in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated	
	to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree
A. A Plan that takes a more focused Ecosystems Services Approach	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	
B. A Plan that does the basics but takes a less focused Ecosystems Services Approach		**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**

[82] The alternatives are evaluated using compatibility criteria in order to determine how they would be likely to affect the status of the existing environment and the SEOs. The SEOs and the alternatives are arrayed against each other to demonstrate which interactions would cause effects on specific components of the environment. Where the appraisal identifies an interaction with the status of an SEO the relevant SEO code is entered into the relevant column.

The interactions identified are reflective of likely significant environmental effects:

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.
2. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.

These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

7.3.3 Assessment of Type 2: Alternatives for an infrastructure led approach to the Plan

In terms of infrastructure led approach to the plan, two alternatives can be considered:

- **Alternative A:** A Plan that takes a strict infrastructure led approach.

  It is essential that development under the Plan is adequately served by infrastructure. An infrastructure led approach would support achieving the objectives of the NPF and RSES and associated Waterford MASP. An infrastructure led approach would provide a strategy for sustainable compact growth in all settlements, contribute to carbon reduction targets and achieve environmental enhancement and economic growth.

  This alternative ensures that the sustainable development of settlements occurs, with new development accompanied by adequate and appropriate infrastructure.

  This alternative would also facilitate the development of a concentric Waterford City, both north and south of the River Suir, and other key enablers for the MASP area.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the most and would provide the highest levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be more likely to be successful, and residual adverse effects would be least likely. This approach would also contribute towards compliance with the objectives of the RSES and NPF.

- **Alternative B**: A Plan that does not takes a less strict infrastructure led approach.

  This alternative considers existing and future demand and capacity in infrastructure but the allocation of growth and associated policy responses are looser than under Alternative A. Decisions relating to infrastructure assessment are left to project level wherever this is possibly.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the least and would provide reduced levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be less likely to be successful, and residual adverse effects would be more likely. Taking a less strict infrastructure led approach would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

Selected Type 2 Alternative for the Plan: Alternative A.

Type 2 alternatives are assessed against Strategic Environmental Objectives on Table 7.4.

Table 7.4 Assessment of Type 2 Alternatives against Strategic Environmental Objectives

Alternative (selected alternative in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated	
	to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree
A. A Plan that takes a strict infrastructure led approach	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	
B. A Plan that does not takes a less strict infrastructure led approach		**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**

7.3.1 Assessment of Type 5: Alternatives for Rural Waterford

Type 5 (i) Rural Areas under Strong Urban Influence/Pressure

- **Type 5 (i) Alternative A:** Designate Rural Areas under Strong Urban Influence/ Pressure

  The methodology behind Alternative A, would build on the current policy framework set out in the Waterford County Development Plan 2011 – 2017, and would be consistent with the strategy and policy objectives of the NPF and RSES, and Section 28 Ministerial guidelines.

  Alternative A provides for a robust and transparent policy approach to manage rural housing.

  Restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres.

  Single dwellings in rural areas would be facilitated as appropriate and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

- **Type 5 (i) Alternative B:** Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.

  In terms of aligning the SEA, AA, SFRA and the Plan Policy Objectives, pursuing Alternative B would raise significant challenges in assessing the full impacts and effects of the alternative strategy approach on the environment, particularly water quality, biodiversity, loss of productive capacity, road capacity and carbon footprint. Furthermore, such an Alternative would be contrary to the NPF, RSES and Ministerial guidelines.

  Alternative B Provides a vague and unclear policy approach to rural housing and risks facilitating a significant increase in urban-generated one-off housing in the open countryside which will undermine the role of small towns and villages and have consequences for the environment.

  Not restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would adversely impact upon the protection and management of the environment and sustainable development. The absence of restrictions would result in increased levels of greenfield development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres.

  Urban generated housing development would occur within rural areas outside of established settlements. This alternative would result in low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

It is considered that Alternative A is the most appropriate means of ensuring that a sustainable approach to rural housing need and demand can be met, in a manner that considers the requirements of communities, and those of the NPF and RSES.

Selected Type 5 (i) Alternative for the Plan: Alternative A.

Type 5 (i) alternatives are assessed against Strategic Environmental Objectives on Table 7.5.

Table 7.5 Assessment of Type 5 Alternatives against Strategic Environmental Objectives

Alternative (selected alternative for the Plan in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated	
	to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree
A. Designate Rural Areas under Strong Urban Influence/Pressure that require various criteria to be demonstrated and met in advance of planning permission being granted for a single dwelling for permanent occupation.	**PHH MA A C BFF S W CH L**		**PHH MA A C BFF S W CH L**	
B. Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.		**PHH MA A C BFF S W CH L**		**PHH MA A C BFF S W CH L**

Type 5 (ii) Villages/Clusters/Nodes and Serviced Sites

- **Type 5 (ii) Alternative A:** Provide focus to and targeted policies/objectives for rural villages, clusters and nodes to act as a viable alternative to one-off housing in the open countryside.

  Alternative A, by providing focus to and targeted policy objectives for the rural villages, clusters and nodes would facilitate a viable alternative to one-off housing in the open countryside. Development within these settlements would be more likely to be served by infrastructure (including water services infrastructure) and more likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Development would be required to be subject to siting, design, protection of residential amenities and normal development management criteria, subject to the satisfactory provision of infrastructure and services and in keeping with the character of the settlement.

  The identification of rural villages, clusters and nodes to facilitate a choice in providing for the housing and community needs of rural areas is an important element of supporting a choice and mix of housing within Waterford. This alternative would facilitate this by way of identifying such locations, and setting out development boundaries within which development may take place.

- **Type 5 (ii) Alternative B:** Rural villages, clusters and nodes are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside

  Alternative B, by not providing a focus to and targeted policy objectives for rural villages, clusters and nodes would be less likely to provide a viable alternative to one-off housing in the open countryside. Development within the open countryside would be less likely to be served by infrastructure (including water services infrastructure) and less likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Alternative B would the least sustainable of these two alternatives and would be most harmful to the environment.

Identifying areas within existing villages and nodes to support clustering of residential development across rural Waterford is an important element of providing choice in the housing market outside of urban settlements, in a manner consistent, in principle, with the NPF and RSES. Alternative A is therefore preferred.

Selected Type 5 (ii) Alternative for the Plan: Alternative A.

Type 5 (ii) alternatives are assessed against Strategic Environmental Objectives on Table 7.6.

Table 7.6 Assessment[83] of Type 5 (ii) Alternatives against Strategic Environmental Objectives

Alternative (selected alternative for the Plan in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated	
	to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree
Alternative A: Provide focus to and targeted policies/objectives for rural villages, clusters and nodes to act as a viable alternative to one-off housing in the open countryside	**PHH MA A C BFF S W CH L**		**PHH MA A C BFF S W CH L**	
Alternative B: Rural villages, clusters and nodes are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside		**PHH MA A C BFF S W CH L**		**PHH MA A C BFF S W CH L**

7.3.2 Assessment of Type 6: Alternatives for Densities

Alternatives identified relating to densities comprise:

Alternative A: Application of a single standard residential density across all settlements.

The application of a low net singular residential density across the City and County would have the potential to push new development towards more environmentally sensitive lands that are less well-serviced and less well-connected, resulting in unnecessary potentially significant adverse effects on all environmental components.

The application of a singular high net residential density could result in a potential mis-alignment between the supply of zoned land to meet the projected demand for new housing. This could result in a misalignment between new development and essential services provision with associated potential for adverse effects on environmental components.

[83] The alternatives are evaluated using compatibility criteria in order to determine how they would be likely to affect the status of the existing environment and the SEOs. The SEOs and the alternatives are arrayed against each other to demonstrate which interactions would cause effects on specific components of the environment. Where the appraisal identifies an interaction with the status of an SEO the relevant SEO code is entered into the relevant column.

The interactions identified are reflective of likely significant environmental effects:

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.
2. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.

These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Alternative B: The Application of different densities at different locations, as appropriate, would provide for the most sustainable development, which would contribute towards environmental protection and management the most.

> Higher densities would be provided where sustainable transport mode opportunities are available and lower densities would be provided where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network. This approach would contribute towards national and regional strategic outcomes including the efficient use of land, compact growth and the transition towards a low carbon and more climate resilient society.
>
> Alternative B would help to ensure compact, sustainable development within and adjacent to the existing built-up footprint and would conflict with the protection and management of environmental components the least. Alignment between new development and essential services provision would be most likely under Alternative B.

Taking cognisance of the range and diversity of settlements across the functional area of the development plan, and the settlement typology/ hierarchy, it is considered that Alternative B is the most sustainable option for delivering on the principles of compact growth, while facilitating placemaking, and the development of diverse rural areas a range of options for the housing market in terms of house type mix, tenure, design and cost, and delivering the Housing Strategy. Alternative B takes into account the objectives of the higher-level NPF and Southern RSES, and the need to comply with the densities set out in Ministerial Guidelines, including those related to *Sustainable Residential Development in Urban Areas (2009)* and *Urban Development and Building Heights (2018)*.

Selected Type 6 Alternative for the Plan: Alternative B.

Type 6 alternatives are assessed against Strategic Environmental Objectives on Table 7.7.

Table 7.7 Assessment of Type 6 Alternatives against Strategic Environmental Objectives

Alternative (selected alternative in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated	
	to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree
A. Application of a single standard residential density across all settlements		**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**
B. Application of different densities at different locations, as appropriate	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

7.3.3 Assessment of Type 8: Alternatives for Land Use Zoning

Alternatives for Land Use Zoning are assessed on Table 7.8.

Table 7.8 Assessment of Type 4 Alternatives against Strategic Environmental Objectives

Town	Alternative (selected alternatives in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated		Commentary
		to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree	
Waterford City & Suburbs	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the City and suburbs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the City and suburbs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Dungarvan/ Ballinroad	Alternative A: More Compact **see note below**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Note: The Selected Alternative for **Dungarvan/Ballinroad** in the Draft Plan was Alternative A "More Compact". However, the Members, through the Material Alterations selected a mix between Alternative A "More Compact" and Alternative B "Less Compact". This would not benefit the protection and management of the environment as well as Alternative A "More Compact" would.						

Town	Alternative (selected alternatives in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated		Commentary
		to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree	
Clonmel Environs	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of Clonmel Environs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Clonmel Environs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Tramore	Alternative A: More Compact **see note below**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Note: The Selected Alternative for **Tramore** in the Draft Plan was Alternative A "More Compact". However, the Members, through the Material Alterations selected a mix between Alternative A "More Compact" and Alternative B "Less Compact". This would not benefit the protection and management of the environment as well as Alternative A "More Compact" would.						
Dunmore East	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

Town	Alternative (selected alternatives in **bold**)	Likely to **Improve** status of SEOs		**Potential Conflict** with status of SEOs – likely to be mitigated		Commentary
		to a **Greater** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Greater** degree	
Portlaw	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Lismore	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Gaeltacht na nDéise	**Alternative A: More Compact**	**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**		By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the Gaeltacht na nDéise, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact		**BFF PHH S MA A C CH L**		**BFF PHH S MA A C CH L**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Gaeltacht na nDéise and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

7.4 Reasons for Selecting Chosen Alternatives

Selected alternatives for the Plan from each of the various types of alternatives that emerged from the planning/SEA process are indicated above.

These alternatives have been incorporated into the Plan having regard to both:

1. The environmental effects which are identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects.

Section 8 Evaluation of Plan Provisions

8.1 Introduction

This section provides an assessment of environmental effects using the information on the current state of the environment (provided in Section 4) and the Strategic Environmental Objectives (see Table 8.1) from implementation of the Plan.

The degree of significance of effects occurring cannot be fully determined at this level of decision making due to the lack of exact detail available with regard to the type or scale of development that will be permitted under the Plan. However, a strategic assessment can be undertaken.

Table 8.1 Strategic Environmental Objectives[84]

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	**BFF**	No net contribution to biodiversity losses or deterioration	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Action Plan and its targets • To protect, maintain and conserve the City and County's natural capital
Population and Human Health	**PHH**	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard the City and County's citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	**S**	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield sites within the City and County • Safeguard areas of prime agricultural land and designated geological sites
Water	**W**	Protection, improvement and sustainable management of the water resource	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion, particularly coastal areas • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals

[84] See also Section 5

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Material Assets	**MA**	Sustainable and efficient use of natural resources	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the City and County - this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart-buildings, cities and grids
Air	**A**	Support clean air policies that reduce the impact of air pollution on the environment and public health	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels
Climatic Factors	**C**	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	• To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into the City and County's infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • Promote development resilient to the effects of climate change • Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	**CH**	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	**L**	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

8.2 Cumulative Effects

Cumulative effects are one of the types of effects which have been considered by the assessment of the alternatives. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

There are two types of potential cumulative effects that have been considered, namely:

- Potential *intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a plan, programme, etc. Where there are elevated levels of environmental sensitivities (such as those identified under Section 4), future development could result in environmental conflicts and lead to a deterioration in environmental integrity. The interrelationships between environmental components that help determine these potential effects are identified on Table 8.4 e.g. interrelationships between: human health and water quality; human health and air quality; human health and flood risk; and ecology and water quality.
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, developments, etc.

Effects that may arise as a result of implementing the Plan have been mitigated to the extent that the only residual adverse effects likely to occur as a result of implementation of the Plan are those which are identified under Table 8.2.

Other policies, plans and programmes that have been considered by the assessment of effects include those which are detailed under Section 2.6 (and associated Appendix I ''Relationship with Legislation, Plans and Programmes''), Section 4 and Section 5. Plans and programmes from various sectors will interact with the Plan, including those relating to land use planning. These plans and programmes are subject to their own environmental assessment requirements as relevant. Examples include:

- Land use policy, plans and programmes (e.g. the National Planning Framework, the Southern Regional Spatial and Economic Strategy, adjoining County Development Plans and Local Area Plans);
- Waterford City and County Local Economic and Community Plan and the Local Economic and Community Plans of adjoining counties;
- Energy policy, plans and programmes (e.g. Grid25 and associated Implementation Programme, Ireland's National Renewable Energy Action Plan 2010, Strategy for Renewable Energy 2012-2020, National Energy and Climate Plan 2021-2030 and the Renewable Electricity Policy and Development Framework);
- Climate related policy, plans and programmes (e.g. the National Climate Policy Position and Climate Action 2014, Low Carbon Development Act 2015, as amended, and White Paper Ireland's Transition to a Low Carbon Energy Future 2015, Climate Action Plan 2021, the National Adaptation Framework 2018, and the Waterford City and County Climate Change Adaptation Strategy 2019 and Climate Action Charter 2019);
- Water services, waste management, transport and energy infrastructure plans (e.g. Irish Water's Water Services Strategic Plan and associated Capital Investment Plan, Connacht-Ulster Regional Waste Management Plan and Transportation Policies and Strategies); and
- Environmental protection and management plans (e.g. River Basin Management Plan and Flood Risk Management Plans).

Potential cumulative/in combination effects include:

- Contributions towards reductions in travel related greenhouse gas and other emissions to air, reductions in consumption from non-renewables and associated achievement of legally binding targets (in combination with plans and programmes from all sectors, including energy, transport and land use planning) as a result of facilitating:
    - sustainable compact growth;
    - sustainable mobility/a shift from motorised transport modes to more sustainable and non-motorised transport modes; and
    - renewable energy development.

- Contributions towards travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including transport and land use planning) as a result of facilitating development which must be accompanied by road capacity;
- Facilitation of new development that is accompanied by appropriate levels of water services thereby contributing towards environmental protection;
- Need for and use of water and waste water treatment capacity arising from new developments and associated potential adverse effects;
- Potential cumulative effects upon surface and ground water status as a result of housing, employment, agricultural and forestry – loadings and abstractions;
- Potential cumulative effects (habitat damage, enhancing ecological connectivity, contributing towards sustainable mobility) arising from linear developments, such as those relating to Green Infrastructure, including beyond the City and County border;
- Potential cumulative effects on flood risk by, for example, development of greenfield lands or obstruction of flood paths; and
- In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from all development in greenfield and brownfield areas (e.g. infrastructural, residential, economic, agricultural etc.). The type of these effects is consistent with those described on Table 8.2. These plans and programmes are required to comply with environmental legislation and undergo SEA and AA as relevant comply with environmental legislation while projects are subject to EIA and AA, as relevant.

These effects would have the potential, if unmitigated, if they occurred, to result in changes in the environment within and beyond Waterford City and County.

A variety of the issues covered by the Plan provisions are regional issues which are considered: at Regional Assembly level, in the Southern RSES and by planning authorities across the Region. The solutions to these issues are often regional solutions which are subject their own consenting procedures. Works arising outside of the Plan as a result of providing for new development within the City and County including those arising as a result of the cumulative provision of development in the wider Southern region would potentially conflict with a number of environmental components, across the wider Southern region and beyond, including: ecology, soil function, the status of water bodies and the landscape. Some of these conflicts would be mitigated by measures which will be integrated into the Plan while some will be mitigated by measures arising out of separate consent procedures.

8.3 Overall Evaluation

Waterford City and County Council have integrated various recommendations arising from the SEA, AA and SFRA processes into the Plan (see Section 9). Table 8.2 provides a detailed overall evaluation of the environmental effects arising from the Plan. The effects encompass all in-combination/cumulative effects arising from implementation of the Plan. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Plan are detailed as are residual effects, taking into account mitigation through both provisions integrated into the Plan – see Section 9.

Taking into account, *inter alia*, the detailed mitigation which has been integrated into the Plan (including that which is identified at Section 9), it has been determined that significant residual adverse environmental effects will not occur.

Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Strategic Environmental Objective (SEO) codes are taken from Table 8.1.

Table 8.2 Overall Evaluation – Effects arising from the Plan

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. • Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. • Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.	• Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. • Losses or damage to ecology (these would be in compliance with relevant legislation).	**BFF**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Population and Human Health	• Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	• Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under “Soil”, “Water” and “Air and Climatic Factors” below.	**PHH**
Soil	• Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards the protection of the environment from contamination the highest standards of remediation, and where appropriate to consultations with the EPA and other relevant bodies, will be required to resolve any instances of environmental pollution created by contaminated land.	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.	• Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. • Riverbank and coastal erosion will continue to occur naturally over time and is likely to be enhanced by climate change.	**S**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the City and County settlements) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and County and beyond. • Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. • Contribution towards flood risk management and appropriate drainage.	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.	• Any increased loadings as a result of development to comply with the River Basin Management Plan. • Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Plan.	**W**
Material Assets	• Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • Contribution towards compliance with national and regional water services and waste management policies. • Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. • Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.	• Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. • Residual wastes to be disposed of in line with higher-level waste management policies. • Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.	**MA**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Southern RSES, adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the City and County settlements) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the City and County and beyond. • In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: o Sustainable compact growth; o Sustainable mobility, including walking, cycling and public transport; o Drainage, flood risk management and resilience; o Sectors including agriculture, forestry, energy and buildings; and o Sustainable design, energy efficiency and green infrastructure.	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	• An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable compact growth and sustainable mobility. • Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Plan to ensure that noise levels at sensitive receptors will be minimised.	**AC**
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere in the City and County by facilitating development within existing settlements. • Contributes towards protection of cultural heritage within existing settlements by facilitating brownfield development and regeneration.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	• Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.	**CH**
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	• Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the Plan's landscape protection measures.	**L**

8.4 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects.

However, a number of alterations were adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan, including those which are identified on Table 8.3 and were advised against by the Plan-preparation/SEA process. Also included on Table 8.3 is advice that was provided by the SEA for consideration in advance of adoption of the Plan.

Table 8.3 Alterations Advised Against but Adopted (including:)

Material Alterations No's.	Commentary provided in advance of Plan Adoption	Mitigation Identified	Recommendation provided in advance of Plan Adoption
205, 211, 225, 284 and 305	Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. These alterations would not be consistent with established population targets and/or the proper planning and sustainable development of the County. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, biodiversity, air and climatic factors and material assets. For alterations relating to zoning, much of the zoning proposed is considered to be premature in the context of current population targets. Potentially significant adverse unnecessary effects, would be likely to include: • Effects on non-designated habitats and species • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces • Increased loadings on water bodies • Conflict with efforts to maximise sustainable compact growth and sustainable mobility • Occurrence of adverse visual impacts Where such alterations are further from the centre of settlements, potentially significant unnecessary adverse effects would be likely to include: • Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of settlements (At An Rinn,	• Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. • Protect the environment and contribute towards sustainable development.	Do not adopt as part of Draft Plan

Material Alterations No's.	Commentary provided in advance of Plan Adoption	Mitigation Identified	Recommendation provided in advance of Plan Adoption
	in particular, the Council have identified major network capacity issues and that pump station and network upgrades are required to deal with current loading) • Adverse impacts upon the economic viability of providing for public assets and infrastructure • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives • Conflicts between transport emissions, including those from cars, and air quality • Conflicts between increased frequency of noise emissions and protection of sensitive receptors • Potential effects on human health as a result of potential interactions with environmental vectors		

8.5 Appropriate Assessment and Strategic Flood Risk Assessment

Stage 2 Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) have been undertaken alongside the preparation of the Plan.

The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The AA assesses the effects of the Plan on European Sites designated for certain habitats and species. The conclusion of the AA is that the Plan will not affect the integrity of the Natura 2000 network[85].

SFRA is required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. Recommendations from the SFRA have been integrated into the Plan.

Various policies and objectives have been integrated into the Plan through the SEA, SFRA and AA processes. The preparation of the Plan, SEA, AA and SFRA has taken place concurrently and the findings of the AA and SFRA have informed both the Plan and the SEA.

[85] Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
(a) no alternative solution available;
(b) imperative reasons of overriding public interest for the plan/programme/project to proceed; and
(c) adequate compensatory measures in place.

8.6 Integration of Climate Action into the Plan[86]

The Plan will contribute towards climate action in combination with:

- The Climate Action Plan that identifies 493 climate mitigation and/or adaptation actions, including: Action 214 Rollout of Social Housing National Retrofitting Programme in 2021 with retrofitted properties required to reach BER B2 or equivalent; Action 190 Ensure national, regional, and local planning frameworks encourage and facilitate the development of district heating where appropriate to facilitating compact urban development; and Action 78 Implement the National Planning Framework.
- The National Planning Framework, which has identified National Strategic Outcome Objectives 8 "Build Climate Resilience" and 9 "Support the transition to low carbon and clean energy" under National Strategic Outcome 8 "Transition to a Low Carbon and Climate Resilient Society".
- The Southern Regional Spatial and Economic Strategy that has identified various Regional Policy Objectives relating to climate action, including RPOs 87-107 under "Climate action and transition to a low carbon economy".

Climate Action is provided for throughout the Plan, including at Chapter 9 "Climate Action, Biodiversity and Environment" and subsections 4.10 "Climate Action and Jobs", 7.7 "Climate Resilient Housing" and 11.13 "Climate change and sustainability /energy efficiency".

Climate Mitigation Measures from the Plan encompass sectors including:

- Buildings
- Agriculture, Land Management and Forestry
- Transport
- Energy Production
- Minerals
- Resource Management

Climate Adaptation Measures from the Plan encompass sectors including:

- Buildings
- Agriculture, Land Management and Forestry
- Water Management
- Infrastructure, including flood defences
- Wildlife and biodiversity
- Economy and Tourism
- Human Health, Risk and Insurance

[86] This section is informed by content from Section 2.2.2 of the Plan

8.7 Interrelationship between Environmental Components

The SEA Directive requires the Environmental Report to include information on the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. Likely significant effects on environmental components which are identified include those which are interrelated; implementation of the Plan will not affect the interrelationships between these components. The presence of significant interrelationships between environmental components is identified on Table 8.4.

Table 8.4 Presence of Interrelationships between Environmental Components

Component	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air and Climatic factors	Material assets	Cultural heritage	Landscape
Biodiversity, flora and fauna		Yes	Yes	Yes	Yes	Yes	No	Yes
Population and Human Health			Yes	Yes	Yes	Yes	No	No
Soil				Yes	No	Yes	No	No
Water					No	Yes	No	No
Air and Climatic Factors						Yes	No	No
Material Assets							Yes	Yes
Cultural Heritage								Yes
Landscape								

8.8 Detailed Evaluation[87]

For an explanation of SEO codes e.g. **BFF**, **PHH**, **S**, **W**, etc. refer to Table 8.1 on page 96.

The following applies to each of the sub-sections 8.8.1 to 8.8.11 below:

The Plan is situated in a hierarchy of documents setting out public policy setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management, such as the National Planning Framework, the National Development Plan, the National Adaptation Framework, the Climate Action Plan and the Regional Spatial and Economic Strategy for the Southern Region (for additional detail please refer to Section 2.6 *"Relationship with other relevant Plans and Programmes"* in this report).

These other existing policies, plans etc. have been subject to their own environmental assessment processes, as relevant, and already provide for various measures that have been compiled into the Plan. The Plan aligns with these documents and will be incorporated into the review and preparation of these documents.

Lower tier plans and projects must be consistent and comply with the provisions of the Plan and of these other policies, plans etc. and will be subject to their own project level EIA and AA requirements as relevant. An assessment of cumulative effects is provided at Section 8.2 of this report.

[87] The Plan's provisions are evaluated using compatibility criteria in order to determine how they would be likely to affect the status of the existing environment and the SEOs. The SEOs and the Plan provisions are arrayed against each other in order to demonstrate which interactions would cause effects on specific components of the environment. Where the appraisal identifies an interaction with the status of an SEO the relevant SEO code is entered into the relevant column.

The interactions identified are reflective of likely significant environmental effects:

1. Interactions that would be likely to improve the status of a particular SEO ("Likely to Improve status of SEOs") would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.
2. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated ("Mitigated Conflicts") would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.
3. Interactions with SEOs, the negative effects of which would be unlikely to be mitigated are identified as "Probable Conflict with status of SEOs – unlikely to be mitigated".

These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Part 1: Vision and Strategy

8.8.1 Chapter 1: Waterford and the Development Plan

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to the Plan's Vision, Aims and Waterford City MASP Strategic Goals. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of Chapter 1 against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

Chapter 1 would contribute towards sustainable development and the protection and management of the environment.

8.8.2 Chapter 2: Spatial Vision and Core Strategy

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to the Plan's Core Strategy Strategic Aims and Core Strategy Policy Objectives. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Spatial Vision and Core Strategy against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable

the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

New Local Area Plans (CS 08) would have to be subject to Screening for AA and SEA and/or AA and SEA processes as relevant.

The Plan's Spatial Vision and Core Strategy would contribute towards sustainable development and the protection and management of the environment, including through:

Core Strategy Strategic Aims

4. To require, where appropriate, all plans and projects to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. Protect the integrity all Natura 2000 sites, (p) NHA's and locally important Biodiversity Sites in Waterford.

8. Implement the Waterford City and County Council Climate Adaptation Strategy 2019 (as amended) and promote a climate resilient pattern of development and land uses which assists in achieving national climate change mitigation and adaption targets.

11. To enhance the sense of place throughout settlements in Waterford and deliver 10-minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning.

Core Strategy Policy Objectives

CS 02 We will deliver positive change across Waterford, in support of the UN 2030 Agenda for Sustainable Development, and the Sustainable Development Goals.

CS 06 We will require, where appropriate, all plans and projects within Waterford to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive.

CS 16 In addition to compliance with other policy objectives and development management standards of the development plan, development proposals for all land use types within rural settlements will be required to demonstrate that:

• The scale of a proposed housing development is consistent with the number of housing units appropriate to the class/ typology of settlement as set out in Section 2.9 and Table 2.1;
• The proposal is compatible with the context of the site in terms of character, scale and density;
• The proposal will contribute to the visual and general/residential amenity of the settlement and its built quality;
• The proposal avoids any transgression onto land used or intended for use as public amenity;
• The proposal is accompanied by a program for developing out the site in terms of access to public water/wastewater, innovative solutions to wastewater such as integrated constructed wetlands and other services along with a completion timeframe; and,
• The proposal will not prejudice the future development of land in its vicinity and the expansion of public amenities or community land uses such as schools.

Part 2: Waterford City and MASP Policy Objectives

8.8.3 Chapter 3: Waterford City and MASP

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to the Plan's Waterford City and the Metropolitan Area Strategic Plan. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Waterford City and MASP provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust,

better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

New Local Area Plans (W City 01 and W City 05) would have to be subject to Screening for AA and SEA and/or AA and SEA processes as relevant.

The Plan's Waterford City and MASP provisions would contribute towards sustainable development and the protection and management of the environment.

Part 3: City and County Policy Objectives

8.8.4 Chapter 4: Economy, Tourism, Education and Retail

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Economy, Tourism, Education and Retail. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Economy, Tourism, Education and Retail provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

New Plans (ECON 17 SIFP for Waterford Estuary) would have to be subject to Screening for AA and SEA and/or AA and SEA processes as relevant.

ECON21 supports air access from regional airports, where it would contribute towards the proper planning and sustainable development of Waterford and comply with all environmental legislation and policies and objectives contained within this Plan and higher-level planning documents, including the National Planning Framework and Southern Regional Spatial and Economic Strategy.

Fishing and aquaculture together with related development (such as infrastructure and buildings in riverbank locations) has the potential to adversely affect various environmental components including biodiversity and flora and fauna, water and human health.

Agriculture is essential to the sustenance of rural populations and associated existing sustainable rural management practices which can often sustain biodiversity. Agriculture is however a source of waste and emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter can have significant effects on water, soil, water, biodiversity and human health.

An extractive industry is essential for sustainable development however it presents the potential for significant adverse environmental effects to arise with regard to all environmental components, if unmitigated.

This Chapter contributes towards the provision of land use activities and developments relating to tourism – and would be likely to contribute towards an increase in the number and dwell time of visitors and associated potential adverse effects. Such effects would include in-combination effects arising from services and infrastructure to service development, including tourism. Examples may include developments/operation of developments relating to water services, transport, energy, access or accommodation. The mitigation of potential adverse effects arising would be contributed towards by Plan provisions including those relating to infrastructure capacity, visitor management, green infrastructure and ecosystem services – see also provisions included under other Chapters including "Chapter 10: Landscape, Coast/ Marine and Blue Green Infrastructure".

The Plan's Economy, Tourism, Education and Retail provisions would contribute towards sustainable development and the protection and management of the environment, including through, for example provisions relating to Marine, SIFP for Waterford Estuary Energy Efficiency and SEVESO III Sites.

8.8.5 Chapter 5: Transport and Mobility

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Transport and Mobility. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Transport and Mobility provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

Many of the provisions in this Chapter primarily contribute towards maximising sustainable mobility and associated interactions with emissions to air (including noise and greenhouse gas emissions), energy usage, air quality and human health. The facilitation of journeys by car, in particular, would give rise to emissions to air. The Plan references various projects that are provided for by higher level plans and programmes. New roads and other transport infrastructure projects that are not already provided for by existing plans/programmes or are not already permitted, are required by Corridor and Route Selection Process (after TRANS 48) to be subject to feasibility assessment.

The development of new greenways, blueways, cycleways and walkways, including those between Waterford City and County, adjoining counties and beyond has the potential to contribute towards sustainable mobility and a better management of movements in sensitive areas, thereby benefitting various environmental components including habitats at certain locations. The development of these projects, however, presents a variety of potentially adverse environmental effects that would, if unmitigated, have the potential to arise from both the construction and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are often constructed in ecologically and visually sensitive areas adjacent to the banks of rivers and streams or along the coast. Potential adverse effects would be mitigated both by measures which have been integrated into the Plan which provide for and contribute towards environmental protection, environmental management and sustainable development (including those identified at Section 9 of this report) and by measures arising from lower tier assessments (including those for the preparation of lower tier plans and projects). Projects would need to be subject to normal planning and environmental assessment processes, as well as complying with the Corridor and Route Selection Process (after TRANS 48). The development of green infrastructure can achieve synergies with regard to the provision of open space amenities, sustainable mobility, the sustainable management of water, the protection and management of biodiversity, the protection of cultural heritage and the protection of protected landscape sensitivities.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

8.8.6 Chapter 6: Utilities Infrastructure, Energy and Communication

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Utilities Infrastructure, Energy and Communication. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Utilities Infrastructure, Energy and Communication provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

Provisions relating to water supply and wastewater and surface water drainage would, by protecting water resources, providing safe drinking water and appropriately treating waste water, contribute towards the protection of various environmental components including: human health, biodiversity and flora and fauna, the status of waters, flood risk management and soil. There would be potential for significant adverse environmental effects upon various environmental components to arise during construction of water services infrastructure. Such potential significant adverse effects could also arise during operation: the protection of human health, biodiversity and flora and fauna and the status of waters, could all be conflicted with by outflows and abstractions.

Flood risk management provisions would contribute towards the protection and management of human health, biodiversity, flora and fauna, cultural heritage, water status and existing infrastructure and services. Flood risk management infrastructure (if required) has the potential to result in significant adverse environmental effects during construction and operation on most environmental components. These types of infrastructure are often constructed in ecologically and visually sensitive areas and adjacent to the banks of rivers and streams and along the coast. Potential adverse effects will be mitigated both by measures which have been integrated into the Plan (including those identified at Section 9 of this report) and by measures arising from lower tier assessments.

Various provisions in this Chapter contribute towards the framework for the development of energy. These Policies Objectives would contribute towards achieving various government objectives and targets including those relating to climate mitigation and reducing greenhouse gas emissions and increasing the amount of energy to be consumed from renewable sources. The development of renewable energy would have the potential to adversely impact upon the environment, if unmitigated. Further general commentary on the types of potential effects arising from a range of renewable energy types is provided below.

Wind Energy
Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets
Potential Negative Effects, if unmitigated:

- Potential impacts include those associated with construction and operation of the turbines and ancillary facilities and infrastructure (including roads and electrical infrastructure)
- Potential human health impact: shadow flicker, noise, and impacts arising from landslides
- Potential impact upon designated and non-designated biodiversity and flora and fauna including birdlife and marine habitats
- Potential interactions leading to change in structure of soil and geology and changes to drainage
- Potential impacts on water status during construction – this could interact with drinking water sources and biodiversity
- Potential impacts upon the context of protected archaeological and architectural heritage – including the context of this heritage – as well as unknown archaeological heritage
- Potential impacts upon traffic during construction due to transportation of turbine components
- Changes to the character of areas would be likely to occur however visual impacts would depend on various factors including the size, number and spacing of the turbines, perception of the relevant areas and any cumulative effect arising from multiple wind farms

Solar Energy
Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets
Potential Negative Effects, if unmitigated:

- Potential impacts on architectural heritage – including the context of this heritage – at micro scale
- Potential impacts on habitats and species and micro scale
- Large scale installations may have visual impacts – these would depend on perception of the relevant area -, however these are unlikely to be provided for

Bio-Energy
Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets. Can provide for the use of agricultural and other wastes
Potential Negative Effects, if unmitigated:

- Potential impact upon designated and non-designated biodiversity and flora and fauna arising from changes in vegetation. Soil structure may also be impacted upon.
- Changes in farming practices may lead to changes in drainage and runoff which could impact upon biological and chemical status of waters - - this could interact with drinking water sources and biodiversity
- Potential human health impact: odour and noise from operation of plants
- Potential impacts upon traffic during operation due to transportation of fuel to plants
- Fuels derived from bio-mass still produce emissions however these are less than those derived from fossil fuels
- Changes to the land cover of areas could occur however visual impacts would depend on perception of the relevant area;
- Biomass plants may have visual impacts - these would depend on perception of the relevant area

Hydro-Energy
Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets
Potential Negative Effects, if unmitigated:

- Depending on the scale and location of the development there is potential for impacts to occur on biodiversity, in particular aquatic biodiversity
- Potential to impact upon the morphological, biological and chemical status of waters - this could interact with drinking water sources (in freshwater) and biodiversity
- Potential interactions leading to change in structure of soil and geology and sediment regimes in off-shore areas
- Operation could impact upon flood risk elsewhere
- Potential impacts upon archaeological heritage or nearby architectural heritage, including context
- Changes to the character of locations may occur however visual impacts would depend upon, inter alia, the size of the installation, ancillary facilities and the perception and visibility of the relevant area

Geothermal Energy
Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets.
Potential Negative Effects, if unmitigated:

- Potential impacts upon the status of waters and ecology contained within, especially arising from changes in the temperature of groundwater which can impact upon the structure and ecology of the aquifer and any dependent surface waters - this could interact with drinking water sources
- Potential interactions leading to change in structure of soil and geology
- Potential impacts upon archaeology, including unknown underground archaeology
- Potential impacts upon on site water services
- Potential impacts upon context of archaeological and architectural heritage arising from surface installation

Information Communications Technology infrastructure has the potential to result in significant adverse effects and require significant levels of energy to operate. Information and Communication Infrastructure provisions would ensure that telecommunications structures are located to minimise and /or mitigate any adverse impacts on communities, public rights of way and the built or natural environment.

Waste Management provisions incorporate circular economy principles that are supported in the RSES.

Construction and Environmental Management Plans would primarily contribute towards the protection and management of the environment, with all environmental components benefitted.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

8.8.7 Chapter 7: Housing and Sustainable Communities

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Housing and Sustainable Communities. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Housing and Sustainable Communities provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

Alternatives relating to Rural Areas have been identified and considered as part of the Plan-preparation and SEA processes. The Plan has integrated the most sustainable and environmentally responsible alternatives for rural areas – refer also to Sections 6 and 7.

In certain locations, due to the soils and drainage, certain waste water treatment systems do not provide the necessary level of treatment and other options should be investigated such as wetland systems or clusters of rural serviced sites. In other areas various systems will work subject to the relevant requirements.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

The Plan's Housing and Sustainable Communities provisions would contribute towards sustainable development and the protection and management of the environment.

8.8.8 Chapter 8: Placemaking

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Placemaking. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Placemaking provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust,

better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc – including the Southern RSES and associated MASP. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

The Plan's Placemaking provisions would contribute towards sustainable development and the protection and management of the environment.

8.8.9 Chapter 9: Climate Action, Biodiversity and Environment

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Climate Action, Biodiversity and Environment. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary:

The assessment of the Plan's Climate Action, Biodiversity and Environment provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The focus of this Chapter is the protection and management of the City and County's environment (including biodiversity, water, soil and landscape) and contributing towards climate action.

NH 03 integrates SEA monitoring requirements into the Plan.

Forestry and access to forestry for amenity would contribute towards the sustenance of rural populations and can improve the biodiversity value of the countryside. Depending on how it is developed, forestry has the potential to adversely affect various environmental components including biodiversity and flora and fauna, water and human health, the landscape.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

8.8.10 Chapter 10: Landscape, Coast/ Marine and Blue Green Infrastructure

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Landscape, Coast/ Marine and Blue Green Infrastructure. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary:

The assessment of the Plan's Landscape, Coast/ Marine and Blue Green Infrastructure provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The focus of this Chapter is the protection and management of the City and County's landscape, coastal/marine areas and blue and green infrastructure.

The provisions contained in the Plan for the protection of coastal assets (settlement, infrastructural, ecological, cultural, recreational and amenity) will help to facilitate the orderly development of the City and County.

Coastal defences and protection measures have the potential to result in significant adverse environmental effects during construction and operation on most environmental components. These types of infrastructure are often constructed in ecologically and visually sensitive areas along the coast.

The development of new greenways, blueways, cycleways and walkways, including those between Waterford City and County, adjoining counties and beyond has the potential to contribute towards sustainable mobility and a better management of movements in sensitive areas, thereby benefitting various environmental components including habitats at certain locations. The development of these projects, however, presents a variety of potentially adverse environmental effects that would, if unmitigated, have the potential to arise from both the construction and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are often constructed in ecologically and visually sensitive areas adjacent to the banks of rivers and streams or along the coast. Potential adverse effects would be mitigated both by measures which have been integrated into the Plan which provide for and contribute towards environmental protection, environmental management and sustainable development (including those identified at Section 9 of this report) and by measures arising from lower tier assessments (including those for the preparation of lower tier plans and projects). Projects would need to be subject to normal planning and environmental assessment processes, as well as complying with the Corridor and Route Selection Process (after TRANS 48). The development of green infrastructure can achieve synergies with regard to the provision of open space amenities, sustainable mobility, the sustainable management of water, the protection and management of biodiversity, the protection of cultural heritage and the protection of protected landscape sensitivities.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

Provisions that would contribute towards sustainable development and the protection and management of the environment, include:

G 01 We will contribute towards the appropriate protection and maintenance of the character, integrity and conservation value of features or areas of geological interest. We will protect from inappropriate development the scheduled list of Geological Heritage Sites detailed in Appendix 11.

G 02 We will promote and support the geological heritage of the UNESCO Copper Coast Geopark and provide for the sustainable management of this coastal amenity.

BGI 16 Visitor and Habitat Management

Where relevant, the Council and those receiving permission for development under the Plan shall seek to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for proposed projects as relevant and appropriate.

BGI 17 Increases in Visitor Numbers to Semi-Natural Areas

Seek to manage any increase in visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that new any projects, such as greenways, are a suitable distance from ecological sensitivities, such as riparian zones.

8.8.11 Chapter 11: Heritage

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Provisions of this Chapter include those relating to Heritage. For more details, please refer to the Plan.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Heritage provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The focus of most of the provisions in this Chapter is the protection and management of the City and County's built heritage (including archaeological heritage and architectural heritage).

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

Volume 2: Development Management Standards

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Development Management Standards are provided under the following headings: Common Principles; Residential development; Residential density; Part V Housing requirements; Residential development design standards; Parking standards; Residential miscellaneous; Non-residential development; Rural development; Road access policy; Other development considerations; Architectural Conservation Areas; and Zoning and land use.	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Development Management Standards against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The focus of most of the standards in this Chapter is the protection and management of the City and County's environment and the achievement of proper planning and sustainable development.

The standards in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

Various Development Management Standards in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

Land Use Zoning/Settlement Maps

	Likely to **Improve** status of SEOs	Probable **Conflict** with status of SEOs – unlikely to be mitigated	**Mitigated Conflicts**	**No Likely** interaction with status of SEOs
Land use zoning is provided for by the Plan for: • Waterford City & Suburbs • Dungarvan/Ballinroad • Clonmel Environs • Tramore • Dunmore East • Portlaw • Lismore	**BFF PHH S W MA A C CH L**		**BFF PHH S W MA A C CH L**	

Commentary

The assessment of the Plan's Land Use Zoning against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the City and County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint of the City and County's towns and villages; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the City and the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the City and County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

Land use zoning provisions would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the City and County, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.

Environmental considerations were integrated into the land use zoning through an interdisciplinary approach involving Planners and environmental specialists. Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Southern RSES. The detailed Plan preparation process undertaken by the Planning Department combined with specialist seeks to facilitate zoning that will help to avoids inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity;

- The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SEA and AA process facilitated zoning that avoids impacts upon sensitive ecology and European Sites. The AA concludes that the Plan, including land use zoning will not affect the integrity of the Natura 2000 network of European Sites[88].
- The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that avoids inappropriate development being permitted in areas of high flood risk.
- The planning team also took into account other environmental considerations including sustainable mobility and sensitivities relating to cultural heritage, landscape and water, as well as taking into account overlay mapping of environmental sensitivities (see County level mapping at Figure 4.24 on page 71).

[88] Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

Where reasonable alternatives in relation to the application of land use zoning were identified by the Planning Team as being available these were considered by the iterative Plan-preparation/SEA process (see Sections 6 and 7 of this report).

There are a wide range of land use types identified under most of the Land Use Zoning Objectives. Proposals for development will need to demonstrate compliance with the various written provisions of the Plan, as relevant, including those relating to environmental protection and management. Environmental considerations, such as those related to elevated levels of flood risk or ecological sensitivities may limit the types of uses that may be possible at certain sites. Land use zoning provisions will contribute towards the protection and management of the environment.

The SEA process that has been undertaken alongside the preparation of the Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating SEA recommendations into the Plan, Waterford City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.

Section 9 Mitigation Measures

9.1 Introduction

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Various environmental sensitivities and issues have been communicated to the Council through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating all related recommendations into the Plan, the Council have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through the:

- Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development;
- Considering alternatives for the Plan;
- Integration of environmental considerations into zoning provisions of the Plan; and
- Integration of individual SEA, AA and SFRA provisions into the text of the Plan.

9.2 Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval, the placing of the Draft Plan on public display and the adoption of the Plan, Waterford City and County Council undertook various works in order to inform the preparation of the Plan.

The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the City and County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including:

- Economy, Tourism, Education and Retail;
- Transport and Mobility;
- Utilities Infrastructure, Energy and Communication;
- Housing and Sustainable Communities;
- Placemaking;
- Climate Action, Biodiversity and Environment;
- Landscape, Coast/ Marine and Blue Green Infrastructure; and
- Heritage.

9.3 Consideration of Alternatives

Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan (see Section 6), as part of the Plan preparation/SEA process, the Council considered a number of alternatives for the Plan.

These alternatives were assessed by the SEA process (see Section 7) and the findings of this assessment informed the selection of preferred alternatives, facilitating an informed choice with respect to the type of Plan that was prepared and placed on public display.

9.4 Integration of environmental considerations into Zoning of the Plan

Environmental considerations were integrated into the Plan's zoning through an interdisciplinary approach.

Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Southern RSES.

The detailed Plan preparation process undertaken by the Planning Department combined with specialist seeks to facilitate zoning that will help to avoids inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity. Various provisions have been integrated into the Plan that provide for flood risk management and ecological protection and management at project level.

Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

9.5 Integration of individual SEA, AA and SFRA provisions into the text of the Plan

Various provisions have been integrated into the text of the Plan through the Plan-preparation and SEA, SFRA and AA processes. Both the Planning and the assessment teams contributed towards the mitigation which was developed over multiple iterations and was informed by, inter alia, various communications through the SEA, AA and SFRA processes.

Table 9.1 links key mitigation measure(s) to the likely significant effects of implementing the Plan, if unmitigated. The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could help to minimise flood risk and the protection of human health, for example.

Table 9.1 Integration of Environmental Considerations into the Plan

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
Various – see below	Various – see below	**Core Strategy Strategic Aims** 4. To require, where appropriate, all plans and projects to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. Protect the integrity all Natura 2000 sites, (p) NHA's and locally important Biodiversity Sites in Waterford. 8. Implement the Waterford City and County Council Climate Adaptation Strategy 2019 (as amended) and promote a climate resilient pattern of development and land uses which assists in achieving national climate change mitigation and adaption targets. 11. To enhance the sense of place throughout settlements in Waterford and deliver 10 minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning. **Core Strategy Policy Objectives** CS 06 We will require, where appropriate, all plans and projects within Waterford to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. **Waterford City and MASP Policy Objectives** W City 26 We will ensure that the growth of the city takes place in an infrastructure led manner that is Transport-Orientated and sustainable in terms of integrated land use and transportation planning and which reduces congestion, air pollution and enhances the quality of the urban environment... UTL 21 Construction and Environmental Management Plan Construction Environment Management Plans shall be prepared in advance of the construction of relevant projects and implemented throughout. Such plans shall incorporate relevant mitigation measures which have been integrated into the Plan and any lower tier Environmental Impact Statement or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed development, including: a. location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse; b. location of areas for construction site offices and staff facilities; c. details of site security fencing and hoardings; d. details of on-site car parking facilities for site workers during the course of construction; e. details of the timing and routing of construction traffic to and from the construction site and associated directional signage; f. measures to obviate queuing of construction traffic on the adjoining road network; g. measures to prevent the spillage or deposit of clay, rubble or other debris; h. alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works; i. details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels; j. containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained (such bunds shall be roofed to exclude rainwater); k. disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, including compliance with 'Best Practice Guidelines for the preparation of Resource Management Plans for Construction & Demolition Waste Projects' EPA: 2021, (or any final updates thereof); l. a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains; m. details of a water quality monitoring and sampling plan; n. if peat is encountered - a peat storage, handling and reinstatement management plan; o. measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed); p. appointment of an ecological clerk of works at site investigation, preparation and construction phases; and q. details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity, including bats. **Corridor and Route Selection Process** New roads and other transport infrastructure projects (including greenways, blueways and cycleways) referred to by this Plan that are not already provided for by plans/ programmes other than the City and County Development Plan or are not already permitted, are subject to the undertaking of feasibility assessment, taking into account planning need, environmental sensitivities as identified in the SEA Environmental Report and the objectives of the Plan relating to sustainable mobility. Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages: Stage 1 – Route Corridor Identification, Evaluation and Selection; and Stage 2 – Route Identification, Evaluation and Selection.
Biodiversity and flora and fauna	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species,	**Regulatory Framework and Decision Making Policy Objectives** ENV 01 Through implementation of the development plan we will cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management, including compliance with EU Directives - including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC) and the Strategic Environmental Assessment Directive (2001/42/EC) – and relevant transposing Regulations. ENV 02 Lower levels of decision making and environmental assessment should consider the sensitivities identified in the SEA Environmental Report that accompanies the Plan, including the following: • Special Areas of Conservation and Special Protection Areas;

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
	ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.	• Features of the landscape that provide linkages/connectivity to designated sites (e.g. watercourses, areas of semi-natural habitat such as linear woodlands etc); • Natural Heritage Areas and proposed Natural Heritage Areas; • Areas likely to contain a habitat listed in Annex 1 of the Habitats Directive; • Entries to the Record of Monuments; • Entries to the Record of Protected Structures; • Architectural Conservation Areas; and, • Landscape/amenity designations. ENV 03 The Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out in the SEA Environmental Report and Statement. This will include the preparation of stand-alone SEA Monitoring Reports: 1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the development plan; 2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan. **Regulatory Framework and Climate Change Policy Objectives** CA 01 To support and implement the policies of the Waterford Climate Adaptation Strategy in collaboration with Waterford Climate Action Team the Climate Action Regional Office (CARO), and review/replace the strategy pursuant to the provisions of the Climate Action Plan 2021 and Low Carbon Development Act. **Flood Management Policy Objectives** FM 01 Waterford City & Council will work with the OPW, LAWPRO and other agencies at a catchment-level to identify any measures, such as natural water retention measures, that can have benefits for the Water Framework Directive, flood risk management and biodiversity objectives. FM 02 Waterford City & Council will protect floodplains of river catchments in the County and retain them for their flood protection and natural heritage values. **Biodiversity Policy Objectives** BD 01 We will protect and conserve all sites designated or proposed for designation as sites of nature conservation value (Natura 2000 Network, Ramsar Sites, NHAs, pNHAs, Sites of Local Biodiversity Interest, Geological Heritage Sites, TPOs) and protect ecological corridors and networks that connect areas of high conservation value such as woodlands, hedgerows, earth banks and wetlands. We will contribute towards the protection and enhancement of biodiversity and ecological connectivity, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, the coastline, geological and geo-morphological systems, other landscape features, natural lighting conditions, and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive. BD 02 In support of the All-Ireland Pollinator Plan we will seek to maintain and enhance Waterford's biodiversity in favourable conservation condition so that environmental resilience and net gain in biodiversity enhancement and creation are achieved during implementation of this plan. BD 03 All proposed development will be considered in terms of compliance with the standards and legal requirements of the following where they apply; • Appropriate Assessment of Plans and Projects in Ireland-Guidance for Planning Authorities Department of Housing, Local Government and Heritage (2021). • NRA Guidelines on Ecological Impact Assessment (2009) • All-Ireland Pollinator Plan (2021) • Planning for Watercourses in the Urban Environment (2020) • Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites. **Natural Heritage N2K Network Policy Objectives** BD 04 Appropriate Assessment All projects and plans arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and subsequent Appropriate Assessment where necessary, that: 1. The plan or project will not give rise to significant direct, indirect or secondary effects on the conservation objectives of any European site (either individually or in combination with other plans or projects); or 2. The plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or 3. The plan or project will have an adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000. BD 05 Protection of European Sites Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		not be permitted on the basis of this plan except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place BD 06 Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The Local Authority support the preparation and implementation of management plans for the conservation of Natura 2000 sites, pNHAs and Sites of Local Biodiversity as per appropriate. **Biodiversity Assessment Policy Objectives** BD 07 We will protect plant and animal species and habitats which have been identified by the EU Habitats Directive (1997), EU Bird Directive (1979), Wildlife Act (1976) and Wildlife (Amendment) Act 2000 and the Flora Protection Order (2015) and ensure development does not impact adversely on wildlife species or the integrity and habitat value of the site. BD 08 We will assess all proposed developments at each level of the development planning process from City & County Development Plan, Local Area Plan to project level to determine potential for significant effects on the conservation objectives and /or adverse impact on the integrity of the Natura 2000 network and ensure that the requirements of Articles 6(3) and 6(4) of the Habitats Directive are fully satisfied. BD 9 We will ensure a sufficient level of information is provided in development applications to enable a fully informed assessment of impacts on biodiversity to be made. Ecological impact assessments submitted in support of development proposals shall be carried out by appropriately qualified professionals and ecological survey work carried out at optimal survey time to ensure accurate collation of ecological data. **Sites of Biodiversity Value Policy Objectives** BD 10 We will prevent unnecessary fragmentation and promote integration of existing green infrastructure such as trees, woodlands, hedgerows, earth banks and wetlands in the design of new development. Proposed development will be encourage to retain and create green corridors within and between built up urban areas along with areas that are not subject to public access so as to promote wildlife habitat value. BD 11 We will mitigate potential adverse impacts on existing biodiversity and green infrastructure in development proposals through requirement for biodiversity enhancement measures such as habitat creation, pollinator friendly landscaping schemes and or nesting boxes for pollinators, birds and mammals. BD 12 We will continue to develop the broader network of habitats through habitat mapping and management planning in collaboration with other agencies to record the range of habitats and network of ecological corridors and integrate this information in the development planning process. BD 13 We will prevent unnecessary noise and light disturbance to wildlife habitats and species by requesting Noise Impact Assessments and Lighting Plans to support development proposals so that wildlife friendly lighting specifications and avoidance of unnecessary noise are incorporated in early design stage of development schemes. BD 14 To promote sustainable and creative proposals in lighting and display technologies. All external lighting should be down lighting and should be time limited where possible. Lighting should be avoided in sensitive wildlife areas and light pollution avoided. All external light proposals should be accompanied by a light pollution study and deviations to the objective will only be considered where the applicant can clearly show that the proposed light solution would result in a more sustainable solution. **Wetland Policy Objectives** BD 15 We will ensure that Waterford's floodplains, wetlands and watercourses are retained for their biodiversity and flood protection values and maintain good ecological status of wetlands and watercourses in support of the provisions of the Water Framework Directive and Ramsar Convention. BD 16 We will protect wetland sites listed in Appendix A11 and other wetlands that may be identified of biodiversity value from infilling and other developments that may affect the biodiversity value of these sites. BD 17 The preservation of riparian corridors is a requirement for the protection of aquatic habitats and facilitation of public access to waterways. Development proposals will be required to avoid culverting of river channels while maintaining a buffer zone of at least 15m between the development works and the top of the riverbank. We will consult with Inland Fisheries Ireland and LAWPRO on the establishment and protection of riparian habitats where appropriate. **Drainage or Reclamation of Wetlands** BD 18 We will implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011, which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such applications for permission would need to be supported by an Appropriate Assessment where necessary. **Peatlands** BD 19 We will support the implementation of any relevant recommendations contained in the National Peatlands Strategy 2015. Developments sited on peatlands have the potential to increase overall carbon losses, potentially undermining expected carbon savings (in the case of renewable energy developments) and damaging rare habitats of European importance. It is recommended that when developing project proposals for developments on peatlands assessments are undertaken that consider: • Peatland stability; • Carbon emissions balance; and • Hydrology and Ecology. **Hedgerow Policy Objectives** BD 20 To protect hedgerows in all new developments, particularly species rich roadside and townland boundary hedgerows, such features should be incorporated into the open space provisions at the concept design stage. There will be a presumption against the removal of hedgerows however where their removal is unavoidable replacement planting shall involve establishment of new hedgerows with native species of local provenance and that support pollinating species.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		Trees & Woodlands Policy Objectives BD 21 We will preserve and enhance the amenity and biodiversity value of the County and City by preserving as far as possible trees, woodlands and hedgerows and will consider Tree Preservation Orders in order to protect trees of significance throughout the City and County. Existing TPOs are listed in Appendix 11. Trees of Special Amenity Value are listed in Appendix 11. BD 22 To implement the Waterford City and County Tree Management Strategy 2021 and review as appropriate. BD 23 Where development proposals require felling of mature trees a comprehensive tree survey carried out by a suitably qualified arborist shall be submitted assessing the condition, ecological and amenity value of the treestock proposed for removal and mitigation planting and management scheme. We will seek in all cases to ensure when undertaking development or when permitting development that the loss of or damage to existing trees is minimised. BD 24 To ensure when planning to undertake development or when considering the approval or authorisation of development that adequate information to assess the impact of the proposed development on existing trees, including tree surveys and planting and management schemes, is provided and that the protection, preservation and management of existing trees of amenity value, and the implementation of a planned planting and management scheme, are provided for. BD 25 We will continue to enhance our public realm and general amenity of the City and County through the continued maintenance and provision of trees in the urban environment with a view to providing continuity of tree cover where possible throughout our urban centres and promoting the use of native species where possible, with varied species and age distribution. BD 26 We will carry out an audit of all trees of special amenity value and TPOs, as listed in Appendix 11,, with a view to updating same. **Forestry Policy Objectives** F 01 We will encourage the replanting and extension of woodland cover, in particular mixed forests and broadleaf forests, in order to ensure the preservation and enhancement of the arboreal landscape in the County F 02 We will support the economic, recreational and carbon sequestration potential of forestry. Forestry as a land use and its ancillary development will be encouraged in appropriate locations subject to such development not impacting on biodiversity/protected species such as Freshwater Pearl Mussel, interfering with significant views or prospects or being unduly obtrusive in the landscape. F 03 We will promote a greater mix of species in Forestry Plantations and to encourage greater structural and spatial diversity in plantation design and enhanced biodiversity and habitat value. We will facilitate afforestation in appropriate locations in co-operation with the Forest Service and Coillte and in accordance with the principles of Sustainable Forest Management codes of best practice and the Waterford Climate Adaptation Strategy and updates of these. F 04 We will co-operate with landowners, Coillte and the Forest Service in promoting greater public access and recreational use of state and privately owned forests in Waterford. F 05 To ensure that linear felling of trees is not encouraged in exposed or scenic areas and also promote phased rather than clear felling. **Invasive Species Policy Objectives** BD 27 We will support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non-native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required. Where development is approved for sites containing known invasive species, we will consider, where appropriate, the use of conditions for control and removal of invasive species. BD 28 We will promote awareness of invasive species and appropriate management, and work with other agencies to address the issue. **Blue Green Infrastructure Policy Objectives** BGI 01 To conserve, manage and enhance the natural heritage, biodiversity, landscape and environment of Waterford in recognition of its importance as a non-renewable resource and as a natural asset for health and well-being of our communities. BGI 02 To establish BGI as a key component in the planning process and designing the future for Waterford so that environmental resilience is achieved through implementation of this plan. BGI 03 We will develop a BGI Strategy the City and County during the lifetime of this plan. BGI 04 We will assess all proposals for development with the aim of no net loss of biodiversity and to achieve gain for BGI and ecosystem services. In particular we will: • Promote the retention and creation of open drainage ditches instead of underground pipes where appropriate as these provide additional habitats and water source for wetland species; and, • Promote the integration of Sustainable Drainage Systems (SuDS) in design concept and layout. BGI 05 We will continue to invest in the maintenance and enhancement of BGI and support the provision of new parks, green space corridors and other public open spaces across our urban and rural settlements. **Amenity Asset Management Policy Objective** BGI 12 We will commission an integrated management plan and management structure addressing recreation, conservation, landscape and socio-economic development issues in Waterford's uplands. BGI 16 Visitor and Habitat Management Where relevant, the Council and those receiving permission for development under the Plan shall seek to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for proposed projects as relevant and appropriate. BGI 17 Increases in Visitor Numbers to Semi-Natural Areas Seek to manage any increase in visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that new any projects, such as greenways, are a suitable distance from ecological sensitivities, such as riparian zones.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
Population and human health	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	ECON 20 SEVESO III Sites We will take into account the provisions of the Major Accidents Directive, relating to the control of major accident hazards involving dangerous substances, and the recommendations of the Health and Safety Authority in the assessment of all planning applications located within the consultation distance of such sites.
Soil	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.	**Natural Heritage and Environmental Quality Policy Objectives** ENV 05 Soil Protection, Contamination and Remediation Ensure that adequate soil protection measures are undertaken where appropriate. Adequate and appropriate investigations shall be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed. The EPA's publication Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (2007) shall be taken into account as relevant by proposals for development within or adjacent to old landfill sites. All undeveloped, contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant remediation incorporating international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Treatment/management of any contaminated material shall comply as appropriate with the Waste Management Act 1996 (waste licence, waste facility permit), as amended, and under the EPA Act 1992 (Industrial Emissions licensing, in particular the First Schedule, Class 11 Waste), as amended. These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk. Prior to the grant of approval on contaminated sites, developers will be required to carry out a full contaminated land risk assessment to demonstrate: • How the proposed landuses will be compatible with the protection of health and safety (including the durability of structures and services) - during both construction and occupation; and • How any contaminated soil or water encountered will be appropriately dealt with. **Geology Policy Objectives** G 01 We will contribute towards the appropriate protection and maintenance of the character, integrity and conservation value of features or areas of geological interest. We will protect from inappropriate development the scheduled list of Geological Heritage Sites detailed in Appendix 11. G 02 We will protect and promote the geological heritage of the UNESCO Copper Coast Geopark and support the work of the Geopark to ensure it retains and adds value to its designation status as a UNESCO Geopark.".
Water	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.	**Natural Heritage and Flood Management Policy Objectives** NH 05 Waterford City & Council will work with the OPW, LAWPRO and other agencies at a catchment-level to identify any measures, such as natural water retention measures, that can have benefits for the Water Framework Directive, flood risk management and biodiversity objectives. NH 06 Waterford City & Council will protect floodplains of river catchments in the County and retain them for their flood protection and natural heritage values. **Natural Heritage and Water Quality Policy Objectives** NH 07 Water Framework Directive and associated legislation We will contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, the coastline, groundwater and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations 2010 (as amended) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development. NH 08 In order to maintain water quality at high status and a return to good status for rivers that are not meeting this threshold at present we will: • Provide for the efficient and sustainable use and development of water resources and water services infrastructure. • Manage and conserve water resources in a manner that supports a healthy society, economic development requirements and a cleaner environment. • Ensure that all development does not negatively impact on water quality and quantity, including surface water, ground water, designated source protection areas, river corridors and associated wetlands, estuarine waters, coastal and transitional waters. • Ensure new development complies with the relevant EPA Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (2009) or any amendments thereto. • Screen planning applications according to their Water Framework Directive status and have regard to their status and objectives to achieve 'good' status or protect and improve 'high or good status'. A catchment based approach shall be applied to the assessment of planning applications which may impact on water quality, and to ensure that the development would not result in a reduction in the water quality status of a waterbody in that catchment. • Seek to protect, enhance and restore all groundwaters and ensure a balance of abstraction and recharge, with the aim of achieving good groundwater status and to reverse any significant and sustained upward trends in the concentration of pollutants in groundwater. • Work with the Local Authority Waters Programme and other relevant State agencies and local communities to achieve the objectives for the Areas for Action identified in the River Basin Management Plans 2018-2021 and 2022-2027 to ensure that new development do not result in a deterioration of water quality in these areas.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		• Develop the associated Blue Dot Catchment network programme under the River Basin Management Plan 2018-2021 to protect and maintain the excellent quality of 'High' status water bodies. NH 09 River Basin Management Plan Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and associated Programme of Measures, or any such plan that may supersede same during the lifetime of the plan. Proposed plans, programmes and projects shall not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated woodlands. Also, to have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive. NH 10 Catchment-sensitive farming practices We will encourage the use of catchment-sensitive farming practices, in order to meet Water Framework Directive targets and comply with the River Basin Management Plan. NH 11 We will maintain Bathing Water standards in line with the EU Bathing Water Directive and increase the number of blue flag beaches.
Air and Climatic Factors	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	**Natural Heritage and Environmental Quality Policy Objectives** ENV 01 Air and Energy We will contribute towards compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage. ENV 02 CAFE Directive Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).
Material Assets	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels.	UTL 02 Water Services To collaborate support and work, in conjunction with Irish Water, to ensure the timely delivery and provision, extension and upgrading of existing and new high quality, climate resilient, water services infrastructure, in order to facilitate the sustainable growth and development of our City and County, in accordance with an ecosystem services and integrated catchment management approach, and the Development Plan Core and Settlement strategies. UTL 03 Water Supply and Drinking Water Regulations We will collaborate with Irish Water in contributing towards compliance with the European Union (Drinking Water) Regulations Drinking Water Regulations 2014 (as amended) and compliance of water supplies with the parameters identified in these Regulations. All new developments must be satisfactorily served by either a mains water supply, or by a private water supply. The preferred option will always be a public water supply and drainage solution. It will be the responsibility of the developer to demonstrate that any new supply is adequate to serve the proposed development and that for domestic use, it is safe to be consumed as drinking water. Groundwater abstractions must comply with EPA policies and guidelines. UTL 04 Drinking Water Report for Public Water Supplies In conjunction with Irish Water, we will have regard to the EPA 2020 publication "Drinking Water Report for Public Water Supplies 2019" (and any subsequent update) in the establishment and maintenance of water sources in the County. UTL 05 EPA's Remedial Action List In conjunction with Irish Water, undertake recommendations made by the EPA arising from any failure to meet drinking water standards and any enlistment on the EPA's Remedial Action List. UTL 06 Urban Waste Water Treatment Regulations We will collaborate with Irish Water in contributing towards compliance with the relevant provisions of the Urban Waste Water Treatment Regulations 2001 and 2004 and the Waste Water Discharge (Authorisation) Regulations 2007 as amended. It is the Council's preference that all new development connect to existing public wastewater treatment facilities without the need for upgrades being required to the facilities, and wastewater network connections are provided by the developer. Development will only be permitted in instances where there is sufficient capacity for appropriate collection, treatment and disposal (in compliance with the Water Framework Directive and River Basin Management Plan) of waste water. All new developments shall ensure that: • A separate foul and surface water drainage system is provided - the discharge of additional surface water to existing combined (foul and surface water) sewers is prohibited in order to maximise the capacity of these collection systems for foul water.

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	• Potential impacts upon public assets and infrastructure. • Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.	• Where permitted, private wastewater treatment plants, are operated in compliance with: - 2021 Code of Practice for Domestic Waste Water Treatment Systems EPA, as may be amended. - EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (1999) and EPA Guidance on the Authorisation of Discharges to Groundwater (EPA 2011), as may be amended. Where a connection to public drainage infrastructure is demonstrated to be unfeasible, and/ or is not available, alternative developer-provided infrastructure, developed in collaboration with the Local Authority or otherwise, may be required/ facilitated if it is satisfactorily demonstrated that disposal of foul water can be achieved without negative impacts on public health, amenity or the environment. The detailed design of any such alternative developer provided infrastructure to service new development within our settlements should meet the technical requirements of Irish Water and may be considered in the following order of priority preferences: i. Where the proposed development exceeds the capacity of the existing treatment plant, the developer shall provide for the upgrade of the treatment plant and connection to the public network. This may be best achieved in settlements such as Lemybrien where the existing ICW can be extended as a low tech/low risk design solution. (Note from table 1 attached the Irish Water proposal to upgrade the WWTP in Lemybrien as part of the STVGP) ii. Where no existing public treatment system exists (certified or otherwise), the developer shall be responsible for developing a new ICW – preferably outside the respective settlement boundary. Such provision will involve the laying of a new network. iii. Where no, or inadequate, public waste-water treatment facilities exist, serviced sites within or immediately adjoining the settlement may be supported. In such instances, serviced site developments on 0.20 hectares (½ acre) plots with individual treatment systems will be required as a temporary measure, until such time as waste-water facilities become available. The serviced sites must be designed to permit the subdivision of each of the 0.20 hectare plots into two 0.10 hectare sites once adequate services become available. The residual land can then be developed for additional serviced sites in the future. Risk and maintenance lies with the individual home owner. Planning permission may be granted on the condition that private drainage infrastructure may be used temporarily, with the requirement to connect to public drainage infrastructure when it becomes available. Note: As per Section 5.3 of the Draft Water Services Guidelines for Planning Authorities, 'Alternative solutions such as private wells or waste water treatment plants should not generally be considered by planning authorities. UTL 07 Water Conservation To require that developments incorporate demand management and water conservation measures such as rain water harvesting and grey water use, among all users, to minimise wastage of water supply, and as viable alternatives to attenuation, and to support Irish Water in implementing water conservation measures such as leakage reduction and network improvements. UTL 08 Protection of Water Resources To work together with Irish Water towards a common goal of protecting our drinking water sources. This will be achieved by: • Supporting the preparation and implementation of Drinking Water Protection Plans by Irish Water, to protect sources of public water supply, in accordance with the requirements of the Water Framework Directive; • Having regard to the EPA 2019 publication 'Drinking Water Report for Public Water Supplies 2018' (and any subsequent update) in the establishment and maintenance of water sources in the County in conjunction with Irish Water; • Protecting both ground and surface water resources including taking account of the impacts of climate change, the cumulative impacts of septic tanks and waste water treatment systems, and to work with and support Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing catchment. UTL 09 Storm and Surface Water Management To require the use of Nature Based Solutions and Sustainable Drainage Systems to minimise and limit the extent of hard surfacing and paving, and require the use of SuDS measures to be incorporated in all new development (including roads and public realm works and extensions to existing developments). Surface water drainage must be dealt with in a sustainable manner, in ways that promote its biodiversity value, and in ways that avoid pollution and flooding, through the use of an integrated SuDS (including integrated constructed wetlands), where appropriate. This includes runoff from major construction sites. Development proposals shall be accompanied by a SuDS assessment, which includes details of run-off quantity and quality and impacts on habitat and water quality, and shall demonstrate how runoff is captured as close to source as possible with subsequent slow release to the drainage system and watercourse, as well as the incorporation of appropriate measures to protect existing water bodies and remove pollutant materials. The detail of the assessment should be commensurate with the scale of the development proposed. Storm/ surface water management and run-off design should be carried out in accordance with Sustainable Urban Drainage Systems (SuDS) standards such as: • 'The SuDS Manual "(CIRIA, 2015), "Sustainable Drainage: Design and Evaluation Guide" (McCloy Consulting & Robert Bray Associates); • "Dublin Corporation Stormwater Management Policy Technical Guidelines"; • "Greater Dublin Regional Code of Practice for Drainage Works" incorporating "Greater Dublin Strategic Drainage Study, Volume 2, New Development" or any future updates; and • The capacity and efficiency of the strategic road network drainage regimes in County Waterford will be safeguarded for national road drainage purposes. In all instances the use of Nature Based Solutions is preferred to engineered solutions. Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas: Water Sensitive Urban Design Best Practice Interim Guidance Document 2022 (DHLG&H) and updates of same. UTL 10 Flooding/ SFRA To reduce the risk of new development being affected by possible future flooding by: • Avoiding development in areas at risk of flooding, • Where possible, reducing the causes of flooding to and from existing and future development;

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		• Increase the application of SuDS such as permeable paving, bioretention/infiltration ponds, swales and Natural Water Retention Measures, and the identification of existing areas which may be suitable for temporary storage/overflow of water during heavy storms; • Where development in floodplains cannot be avoided, taking a sequential approach to flood risk management based on avoidance, reduction and adaptation to the risk; and, • Ensuring that all proposals for development falling within Flood Zones A or B are consistent with the "The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009", "Climate Action and Low Carbon Development Act" (2021), and any amendment thereof, and the "Waterford Strategic Flood Risk Assessment" (2021) as included in Appendix 13 • To support the making of Local Area Plan for larger urban centres we will prepare surface water management plans where adequate data exists to support their preparation. Where data is lacking we will carry out a data review gap analysis and prepare conceptual surface water management plans as an initial step. Proposals for development identified as being vulnerable to flooding must be supported by a site specific Flood Risk Assessment, and demonstrate to the satisfaction of the Planning Authority that the development and its infrastructure will avoid significant risks of flooding and not exacerbate flooding elsewhere. We will support the development of new flood relief schemes by the OPW, in particular those at Aglish, Ballyduff and Dungarvan & Environs while protecting public investment in flood relief schemes as detailed in section 4.4.3 of the SFRA (Appendix 13). UTL 11 Flood Plains To contribute towards the improvement and/or restoration of the natural flood risk management functions of flood plains subject to compliance with the environmental legislation and availability of resources, and ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time. UTL 17 Waste Services (Infrastructure & Management) The Council will continue to promote and facilitate the principles of the circular economy in minimising waste going to landfill and maximise waste as a resource, with prevention, preparation for reuse, recycling and recovery prioritised in that order, over the disposal of waste. This will be assisted by: Promoting and facilitating high quality sustainable waste recovery and disposal infrastructure/ technology at appropriate locations in Waterford, subject to the protection of the amenities of the surrounding environment including European Sites, guidelines incorporated into the new Regional Waste Management Plan, the siting guidance 'Waste Management Infrastructure – Guidance for Siting Waste Management Facilities' that will be incorporated into the new National Waste Management Plan for a Circular Economy and in keeping with the EU waste hierarchy; • Continuing to facilitate and promote the provision of civic amenity sites, including 'bring centres' for the purposes of providing a collection point for the recycling of domestic waste, subject to siting, location, compatibility with adjacent land uses and other relevant development management criteria. • Requiring the facilitation of bring centres in larger retail developments. • Requiring, where necessary, Project Construction and Demolition Waste Management Plans as part of applications for development in accordance with "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects" (DoEHLG, 2006). Such plans should be submitted for developments above the thresholds stated in these guidelines, and as required by the Planning Authority. • Ensuring all developments have adequate space to facilitate storage and segregation of waste arising from the development. • Supporting the implementation of the Southern Region Waste Management Plan 2015-2021 (SRWMP) and any updates made thereto, including through the assessment of planning applications by reference to the SRWMP siting and development guidelines for waste infrastructure. UTL 20 Waste Management Regulations and Closed Landfills The Council shall continue to fulfil its duties under the Waste Management (certification of historic unlicensed waste disposal and recovery activity) Regulations 2008 (S.I. No 524 of 2008), including those in relation to the identification and registration of closed landfills. UTL 22 We will safeguard the environment by seeking to ensure that residual waste is disposed of appropriately. All waste arising during construction will be managed and disposed of in a way that ensures the provisions of the Waste Management Acts and the Southern Waste Management Plan 2015-2021. UTL 23 We support the minimisation of waste creation and promote a practice of reduce, reuse and recycle where possible.
Cultural Heritage	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities	**Heritage Strategic Objectives** To identify, protect, manage and enhance the rich qualities of the built, cultural and natural heritage of the City and County, and to encourage its sensitive and appropriate integration into the sustainable development of our places for the benefit of present and future generations. The Plan seeks to achieve a balance between the foregoing and economic prosperity and social integration. To seek the protection, sustainable management and enhancement of Waterford's built heritage; to promote the appropriate regeneration and reuse of our historic structures which strengthen a sense of place; to promote awareness and enjoyment of our built heritage for the present and future generations. **Heritage Policy Objectives** Heritage 01To implement and review the Waterford Heritage Plan in partnership with all relevant stakeholders and subject to available resources. Heritage 02To support the objectives of Heritage Ireland 2030 in relation to Communities and Heritage, Leadership and Heritage and Heritage Partnerships. **Built Heritage Policy Objectives** BH 01 We will promote the protection of the architectural heritage of the City and County through the identification of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, by the inclusion of such structures on the Record of Protected Structures (RPS) and by taking such steps as are necessary to ensure the protection of those structures, their maintenance, conservation, enhancement, and appropriate active use. To this end we will contribute towards the protection of architectural heritage by complying, as appropriate, with the legislative provisions of the Planning and Development Act 2000 (as amended) in relation to architectural heritage and the policy guidance contained in the Architectural Heritage Protection Guidelines 2011 (and any updated/superseding document).

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		BH 02 It is the policy of the Council: • To promote the sustainable reuse of protected structures for any such purpose compatible with the character of the structure. The Planning Authority may, where considered appropriate, relax use zoning and other site development restrictions and may grant exemption from or reduce the amounts of development contributions payable in order to secure the protection and conservation of protected structures or historic structures within ACAs and by way of reduction of development levies for improvements to Protected Structures. These restrictions may be relaxed and development contributions reduced or exempted where the protected structure will be rehabilitated to a high standard, where the special interest, character and setting of the building is protected and where the proposed use and development is consistent with conservation policies and the proper planning and sustainable development of the area. In such cases the proposed development shall be open for consideration notwithstanding the current zoning objective for the site and therefore shall be considered as not materially contravening the Development Plan. • To administer incentives for the protection of the architectural heritage of the City and County through administration of the Built Heritage funding schemes or similar Department of Housing Local Government and Heritage funding schemes • To advise with regard to best conservation practice as per Architectural Heritage Protection Guidelines for Planning Authorities 2011 available on https://www.waterfordcouncil.ie/departments/culture-heritage/heritage/protected-structures.htm and Department of Housing Local Government and Heritage Advice Series available on https://www.buildingsofireland.ie/resources/. BH 03 We will issue Section 57 Declarations on request to owners or occupiers of protected structures detailing the type of works that it is considered would or would not materially affect the character of the structure or of any element of the structure which contributes to its special interest. BH 04 Proposals for the demolition of a Protected Structure may be considered in exceptional circumstances and the onus will be on the developer to provide the strongest justification for such an action as per the Heritage Protection Guidelines for Planning Authorities and other guidance. BH 05 It is the policy of the Council to: • Achieve the preservation of the special character of places, areas, groups of structures setting out Architectural Conservation Areas (ACA). • Protect the special heritage values, unique characteristics and distinctive features, such as shopfronts within the ACA from inappropriate development which would detract from the special character of the ACA. • Prohibit the demolition of historic structures that positively contributes to the distinctive character of the ACA. • Encourage the undergrounding of overhead services and the removal of redundant wiring/cables within an ACA and to assesses all further cable installations against its likely impact on the character of the ACA as the cumulative impact of wiring can have a negative impact on the character of ACAs. • Provide guidelines on appropriate development to retain its distinctive character; and protect elements of the streetscape such as rubblestone boundary walls, planting schemes and street furniture such as paving, post boxes, historic bollards, basement grills, street signage/plaques, etc. which make a positive contribution to the built heritage; • Retain or sensitively reintegrate any surviving items of historic street furniture and finishes such as granite kerbing and paving that contribute to the character of an ACA. BH 06 It is the policy of the Council when considering development which may have a significant impact on a protected structures, its setting or curtilage or have an impact on an ACA, that the proposal be accompanied by an architectural heritage impact assessment (AHIA) detailing the potential impact of the development on the architectural heritage. The report should be compiled in accordance with the details set out in Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities, Department of the Environment. BH 07 It is the policy of the Council • to identify and implement measures for promoting the character of the historic cores of the city, towns and villages, their unique identity and their architectural, archaeological, historical and cultural, social interest and diversity in order for them to be a good area to work, live and visit. BH 08 It is a policy of the Council • To encourage sympathetic development or reuse of historic buildings to promote heritage led economic growth and regeneration whilst not adversely detracting from the building or its setting. Any proposals shall respect features of the special architectural and historic character by appropriate design, materials, scale, and setting. BH 09 Ecological Impact Assessment It is the policy of the Council to request an ecological impact assessment where development may have an adverse impact on protected wildlife species such as bats or nesting birds. The incorporation of biodiversity enhancement measures shall be a requirement in repair works to existing or design of new developments". BH 10 It is the policy of the Council • To facilitate appropriate, high-quality design solutions for adaptations of Protected Structures and historic buildings in an ACA that carefully consider the design, height, scale, massing, and finishes of adjacent buildings. BH 11 It is the policy of the Council • To protect structures and curtilages included in the RPS or historic structures within ACA, from any works which would visually or physically detract from the special character of the main structure, any structures within the curtilage, or the streetscape or landscape setting of the ACA. BH 12 It is the policy of the Council • To ensure the protection of the settings and vistas of Protected structures, and historic buildings within and adjacent to ACAs from any works which would result in the loss or damage to their special character. BH 13 It is the policy of the Council • To encourage the sensitive redevelopment of vacant or derelict sites within the ACA and historic cores of the city, towns and villages whilst promoting a high standard design which respects urban plots, roof lines vistas and streetscape.

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		BH 14 It is the policy of the Council to: • Encourage the sensitive redevelopment and reuse of the ground floor shop units of Protected structures or buildings in the historic cores for other uses including residential whilst retaining the shopfront façade, windows and doorways to upper floors • Promote the sustainable reuse and refurbishment of vacant upper floors of buildings in the historic core for residential use through incentives such at the Repair and Lease Scheme. BH 15 It is the policy of the Council to • Ensure that all original and traditional shopfronts which contribute positively to the appearance and character of a streetscape are retained and restored and new shopfronts are well designed, through the sympathetic use of scale, proportion and high quality materials. BH 16 It is the policy of the Council to • Promote and ensure the conservation and reuse of traditional materials and features. Original building fabric such as rubblestone and brick walls, lime mortar render, natural slate, thatch, chimneys, brick detailing, ironwork and joinery details such as timber sash windows, shopfronts, doorways and bargeboards shall be retained. Where traditional features such as timber sliding sash windows have been removed, their reinstatement shall be encouraged. • Encourage the retention and development of the traditional skills base in County Waterford and maintain the Conservation Skills register. BH 17 We will publish guidelines for best practice in the care of historic shopfronts during the lifetime of the development plan. BH 18 It is a policy of Council to: • Protect and promote the setting and visual amenity of historic gardens and designed landscapes. • Protect all elements of historic gardens and designed landscapes including structures, tree planting schemes, manmade features such as waterways, boundary features within the attendant grounds of Protected Structures. • Proposed development which have the potential to visually or physically impact on the character and/or the appearance of an historic designed landscape should be justified through a Design Landscape Assessment /Architectural Heritage Impact Assessment. BH 19 We will assess the need to establish additional areas for designation as ACA for Demesnes and to extend the boundaries of the existing ACAs having regard to their special architectural, historic, archaeological, artistic, cultural, scientific, social or technical interest or value or contribution to the appreciation of protected structures and settings and vistas. BH 20 It is a policy of the Council • To protect and promote the sustainable reuse and development within large complexes such as workhouses, school, barracks, convents, abbeys, hospitals included in the RPS, and that such proposals would be justified through an overall Conservation Plan. BH 21 It is the Policy of the Council to • identify, protect and encourage the sympathetic reuse of elements of the industrial heritage and to encourage sustainable reuse of underutilised/vacant industrial buildings for residential, commercial or tourism use. • All development proposals for industrial buildings and sites of industrial archaeological importance must be accompanied by an archaeological assessment of the building(s) and their surrounding environment. In all cases the retention and/or incorporation of industrial buildings will be encouraged and only in exceptional circumstances will demolition be considered. BH 22 During the life of the development plan we will: • Update the Industrial Heritage of Waterford Survey (2008) • Survey our maritime heritage which includes quays, harbours, river quays and walls, and navigation aids. BH 23 It is the policy of the Council to: • Support and implement the objectives of: o The Climate Change Sectoral Adaptation Plan (2019) for built and archaeological heritage, o The Waterford Climate Action Plan (2019) in building resilience for our historic sites and buildings from climate change. o Department of Environment, Heritage and Local Government's publication on 'Energy Efficiency in Traditional Buildings' (2010). o The Irish Standard IS EN 16883:2017 'Conservation of Cultural Heritage - Guidelines for Improving the Energy Performance of Historic Buildings' (2017). o Any future advisory documents in assessing proposed works on Protected Structures. • Promote the just transition to a low carbon and climate resilient society in the interest of sustainability and to reduce landfill by acknowledging the embodied energy retention and reuse of our historic building stock. • Promote the appropriate rehabilitation, revitalization and reuse of vernacular buildings, and town houses, wherever feasible, employing best conservation practice and using traditional building methods and materials such as timber windows in the interest of sustainability, good conservation practice and maintaining the long-term viability of such buildings and their associated features and improve their resilience to climate change • Ensure that measures to upgrade the energy efficiency of historic buildings acknowledge their inherent characteristics, techniques and materials and do not have a detrimental physical or visual impact on the building or its character • Support appropriate and well-informed energy efficiency upgrades to structures on the Record of Protected Structures and historic buildings through the dissemination of factual and relevant information to the general public. • Identify the built and archaeological heritage in local authority ownership and areas at risk from climate change including, but not necessarily restricted to, the Record of Monuments and Places, protected structures and architectural conservation areas designated in the development plan. BH 24 It is the policy of the Council to: • Protect, maintain and enhance the historic character and setting of vernacular buildings, farmyards and settlements

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		• Encourage appropriate revitalisation and reuse of such structures (see rural diversification/tourism). There will be a presumption against the demolition of vernacular buildings where restoration or adaptation is a feasible option. • Promote the protection and maintenance of thatched buildings (domestic or non-domestic), particularly those with historic layers and roof structures. BH 25 During the life of the development plan we will: • Update the Thatch House survey of County Waterford • Promote available grant schemes and facilitate engagement with owners in the maintenance of these buildings. BH 26 It is a policy of the council to • Encourage and facilitate the sensitive reuse of vernacular houses or farm buildings for farm diversification, agritourism and rural development, including self-catering accommodation, arts or craft workshops and small-scale manufacturing. Guidance and information can be found in Traditional Buildings for Irish Farms (2005) published by the Heritage Council and Teagasc, and Reusing Farm Buildings: A Kildare Perspective (2006) published by Kildare County Council. BH 27 It is the policy of the Council where proposals for sensitive rehabilitation of disused vernacular buildings in the open countryside are being considered they will not be required to establish a rural housing need provided that their vernacular character is enhanced and that their fabric is repaired using appropriate techniques and materials. Where the subject structure is demolished a rural housing need will be required. BH 28 It is the policy of the Council to ensure that where permission is sought to demolish a structure which is considered of vernacular significance, on the grounds of structural defects or failure, or that it is not reasonably capable of being made structurally sound, the developer will be required to submit a report by a professional with appropriate conservation expertise and an understanding of vernacular buildings which demonstrate substantial reasons for the demolition. It must be satisfactorily demonstrated that every effort has been made to continue the present use or find a suitable new use for the structure(s). BH 29 It is the policy of the council to ensure that where it is proposed to extend an existing vernacular house/ building, the design, scale, footprint and materials should be sympathetic to the existing building and its setting. Extensions should: • generally be located to the rear and not obscure the form or layout of the existing building; • substantial removal of walling should be avoided; • connecting the existing building and extension should minimise the number of new openings and ideally use existing openings; and, • Where feasible outbuilding contiguous to a dwelling can sometimes be successfully incorporated. BH 30 It is the policy of the Council to: • To promote a high standard of civic amenity and design and to respect existing open spaces, urban spaces, settings, vistas street furniture and streetscape within historic cores. The Council shall consider the receiving environment when erecting signage, undertaking road markings, providing traffic control measures bike lanes, parking spaces, planting and road and footpath access works, and ensures that all such works are sensitive to the to the distinctive character of the area and streetscape. • Preserve the retention of historic items of street furniture where these contribute to the character of the area, including items of a vernacular or local significance. • Ensure street furniture and signage is kept to a minimum, is of high quality design and material and that any redundant street furniture is removed. BH 31 We will protect and preserve the integrity and enhance elements of the built heritage such as limekilns, quays, bollards, bridges and their settings. BH 32 It is a policy of the Council • To demonstrate best practice with regard to Protected Structures, Recorded Monuments and other elements of architectural and archaeological heritage in the ownership and care of the Council and to ensure appropriate materials and methodologies are used for the repair works. BH 33 During the life of the development plan we will carry out an audit of all protected structures in our ownership with a view to securing uses that are compatible with the character of the individual protected structure. BH 34 It is the policy of the Council to promote public awareness of the value of the our historic built heritage and our archaeology and the positive contribution protected structures, historic structures and archaeology make to the built environment, the sense of place, distinctiveness and authenticity of an area and the tourism potential to Waterford and to develop specific measures to achieve such awareness. BH 35 We will continue the publication of architectural/archaeological guides series such Historic Waterford – The Coast , Architectural Waterford, Heritage Tourism Guides on line (or via app). **Archaeological Heritage Policy Objectives** AH 01 It is the policy of the Council to protect, and enhance in an appropriate manner all elements of the archaeological heritage including the following categories: a) Sites and monuments included in the Sites and Monuments Record as maintained by the Department with responsibility for the protection of Ireland's archaeological heritage. b) Monuments and places included in the Record of Monuments and Places (RMP) as established under the National Monuments Acts. c) Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts. d) National Monuments subject to Preservation Orders under the National Monuments Acts and National Monuments which are in the ownership or guardianship of the Minister with responsibility for archaeological heritage or a local authority. e) Archaeological objects within the meaning of the National Monuments Acts. f) Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service, underwater archaeology, riverine, coastal or lacustrine locations. g) Archaeological features not as yet identified but which may be impacted on by development. And where feasible, appropriate and applicable to promote access (including disabled access) to and signposting and interpretive material of such sites and monuments and provide appropriate forms of virtual access where physical access is not possible.

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		AH 02 We will contribute, as appropriate, towards the protection and sympathetic enhancement of archaeological heritage, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended) and the National Monuments Act, 1930 (as amended). We will ensure that archaeological excavation is carried out according to best practice as outlined by the National Monuments Service, Department of Housing, Local Government and Heritage, the National Museum of Ireland and the Institute of Archaeologists of Ireland. We will consult with the National Monuments Service as relevant in relation to proposed developments, including those adjoining archaeological sites. AH 03 It is the policy of the Council • Waterford City & County Council shall, in an appropriate manner, secure either by preservation in-situ or preservation-by-record, the archaeological heritage. In this regard priority shall be given to the preservation in-situ of any archaeological monument/site/place as the first option considered. If preservation in-situ cannot be achieved, or can only be achieved in-part, then preservation-by-record of elements of the archaeological heritage will be required –this will require the full archaeological excavation and recording of the monument/site, according to best professional practice. Where excavation is required this shall also include the preparation of appropriate reports, post-excavation analyses and publications. The costs of assessing and mitigating archaeological impacts shall form part of development costs as borne by the developer. AH 04 It is the policy of the Council to: Ensure that development in the vicinity of a site of archaeological interest shall be designed and sited sympathetically and shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing. • When considering development in the vicinity of all archaeological sites including remnants of the city and town walls, the planning authority will require the preparation of an archaeological assessment detailing the potential impact of any development on upstanding structures, buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains. • Proposed developments will be required to retain the existing street layout, including laneways, historic building lines and traditional plot widths where these derive from medieval or earlier origins. • When considering development in the vicinity of upstanding archaeological/historical monuments, to aim to achieve a satisfactory buffer area between the development and the monument in order to ensure the preservation and enhancement of the amenity associated with the presence of upstanding monuments within the historic urban pattern. • For all developments, which have potential to impact on riverine, intertidal and sub-tidal environments to require an archaeological assessment prior to works being carried out. In addition to planning permission, development works at National Monuments of which the Minister or local authority is owner of, guardian of or in respect of which a preservation order is in force, may also require Ministerial Consent under Section 14 of the National Monuments Act 1930 (as amended) and this will be determined by the relevant authority (Department of Housing, Local Government & Heritage) on application. AH 05 We will protect the essential character and setting of the City Walls and Towers through the control of the design, location and layout of new development in their vicinity and through the control of changes of use of lands, by the protection of adjoining streetscapes and site features where appropriate and by protecting important views to and from the walls and towers from obstruction and/or inappropriate intrusion by new buildings structures, plant and equipment, signs and other devices; and where opportunities arise to create additional views of the walls and towers. We will continue to protect enhance and promote the City Walls by updating the City Walls Plan (2014) and implement an Interpretation Plan for Waterford Medieval City Walls and Towers. AH 06 We will deliver the actions of the Woodstown Viking Site Conservation Management Plan 2020, in collaboration with the Woodstown Steering Committee and all relevant Stakeholders. AH 07 It is a policy of the Council to • Utilise Waterford's archaeology such as its City Walls and Towers as an educational and tourism resource and to facilitate the publication and dissemination of interpretative material to the general public, and to facilitate public access to the walls and towers and other sites of interest. • Promote the incorporation of or reference to significant archaeological finds in a development, where appropriate, through layout, displays, signage, plaques, information panels or use of historic place names. AH 08 It is the policy of the Council • to apply best practice in the care and management of historic graveyards as detailed in the guidance document on the "Care, Conservation and Recording of Historic Graveyards in County Waterford" published by Waterford County Council in 2009 and the Department of Housing, Local Government and Heritage Advice Series Places of Worship available on https://www.buildingsofireland.ie/app/uploads/2019/10/Places-of-Worship-The-Conservation-of-Places-of-Worship-2011.pdf AH 09 We will promote community archaeology projects such as the Adopt a Monument Scheme and avail of funding to support same in the interests of conserving sites and monuments in the city and county.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
Landscape	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	**Landscape Policy Objectives** L 01 National Landscape Strategy We will support provisions of the 2014 National Landscape Strategy and provide for the sustainable management of all of County Waterford's landscapes including archaeological landscapes, waterway corridors, coastal, upland, rural and peri-urban landscapes. L 02 Protecting our Landscape and Seascape We will protect the landscape and natural assets of the County by ensuring that proposed developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area and ensuring that such proposals are not unduly visually obtrusive in the landscape, in particular, in or adjacent to the uplands, along river corridors, coastal or other distinctive landscape character units. L 03 Landscape and Seascape Character Assessment We will assess all proposals for development outside of our settlements in terms of the 2020 Landscape and Seascape Character Assessment (Appendix 8) and the associated sensitivity of the particular location. We will require a Landscape and Visual Impact Assessment (LVIA) for proposed developments with the potential to impact on significant landscape features within the City and County. Proposals for significant development (e.g. renewable energy projects, telecommunications and other infrastructure and the extractive industry) shall be accompanied by a LVIA which includes Zones of Theoretical Visibility (ZTV) which indicate the landscape impact zone within which the proposed development may be seen. There will be a presumption against developments which are located on elevated and exposed sites and where the landscape cannot accommodate such development with reasonable and appropriate mitigation. LS 04 Scenic Routes and Protected Views We will protect the scenic routes and specified protected views identified in our Landscape Character Assessment (Appendix 8), including views to and from the sea, rivers, landscape features, mountains, landmark structures and urban settlements from inappropriate development that by virtue of design, scale, character or cumulative impact would block or detract from such views.

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Plan.

Monitoring can both demonstrate the positive effects facilitated by the Plan and can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

The occurrence of significant adverse environmental effects not predicted and mitigated by this assessment, which are directly attributable to the implementation of the Plan, would necessitate consideration of these effects in the context of the Plan and potential remediation action(s) and/or review of part(s) of the Plan.

10.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in Section 5 and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions. Given the position of the Development Plan in the land use planning hierarchy beneath RSES, the measures identified in the RSES SEAs, including the Southern RSES SEA, have been used – as they are or having been slightly modified – in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 10.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

Monitoring is an ongoing process and the programme allows for flexibility and the further refinement of indicators and targets. The Monitoring Programme may be updated to deal with specific environmental issues – including unforeseen effects – as they arise.

10.3 Sources

The Plan forms part of the wider land use planning framework comprising a hierarchy of policies, plans, programmes, etc. This wider framework, including the National Planning Framework and the Southern RSES, is subject to its own SEA (and associated monitoring) requirements. At lower tiers of the hierarchy, Local Area Plans and individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme the Council will take into account this hierarchy of planning and environmental monitoring.

Sources for indicators may include existing monitoring databases (including those maintained by planning authorities and national/regional government departments and agencies) and the output of lower-tier environmental assessment and decision making (including a review of project approvals granted and associated documents and the output of any EIA monitoring programmes).

10.4 Reporting

As provided by Policy Objective NH03 "Monitoring and Management", the Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out in the SEA Environmental Report and Statement. This will include the preparation of stand-alone SEA Monitoring Reports:

1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the Development Plan; and

2. On the significant environmental effects of implementing the Plan, in

advance of the beginning of the review of the next Plan.

Reporting will seek to address the indicators set out on Table 10.1. The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports (reports will be made available to the public) and, if necessary, the carrying out of remedial action.

Table 10.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	**BFF**	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years) [89] • DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years) [90] • Consultations with the NPWS (see Section 10.4) [91]	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		• Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• Internal review of local land use plans	• Review internal systems
		• SEAs and AAs as relevant for new Council policies, plans, programmes etc.	• Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.	• Internal monitoring of preparation of local land use plans	• Review internal systems
		• Status of water quality in the City and County's water bodies	• Included under Water below	• Included under Water below	• Included under Water below
		• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• Internal monitoring of likely significant environmental effects of grants of permission [92]	• Review internal systems
Population and Human Health	**PHH**	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail"	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail"	• Internal review of progress on implementing Plan objectives • Consultations with DECC (see Section 10.4)	• Review internal systems • Consultations with DECC

[89] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[90] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[91] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[92] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
			• By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)		
		• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	• Consultations with the Health Service Executive and EPA	• Consultations with the Health Service Executive and EPA
		• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
		• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping	• Internal review of local land use plans	• Review internal systems
Soil (and Land)	S	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Maintain built surface cover nationally to below the EU average of 4% as per the NPF • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels across the City and County	• EPA Geoportal • Compilation of greenfield and brownfield development for the DHLGH • AA/Screening for AA for each application	• Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
		• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements	• Internal review of grants of permission where contaminated material must be disposed of	• Consultations with the EPA and Development Management
		• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	• Internal monitoring of grants of permission	• Review internal systems
Water	W	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan	• EPA Monitoring Programme for WFD compliance [93]	• Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the

[93] Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
					WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
		• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• Internal monitoring of likely significant environmental effects of grants of permission	• Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	• Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in-combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health	• Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Irish Water (see Section 10.4) • DHLGH in conjunction with Local Authorities	• Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
		• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
Air	A	• Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% • NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels • Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter	• CSO data • Data from the National Travel Survey • EPA Air Quality Monitoring • Consultations with Department of Transport and Department of Environment, Climate and Communications (see Section 10.4)	• Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Climatic Factors [94]	C	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
		• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	• Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024 • EPA Annual National Greenhouse Gas Emissions Inventory reporting • Climate Action Regional Office • Consultations with DECC (at monitoring evaluation - see Section 10.4)	• Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Share of renewable energy in transport	• Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan		
		• Carbon dioxide (CO_2) emissions across the electricity generation, built environment and transport sectors	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors		
		• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating		
		• Proportion of journeys made by private fossil fuel-based car compared to 2016 levels	• Decrease in the proportion of journeys made by residents of the City and County using private fossil fuel-based car compared to 2016 levels	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.

[94] Please also refer to relevant legislation and requirements under Section 4.10, Section 8.6, Section 8.8.9 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically and include those under the headings of Electricity, Built Environment, Transport, Agriculture, Forestry & Land Use and Enterprise.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Cultural Heritage	CH	• Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Council will work with the Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		• Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Consultation with DHLGH (see Section 10.4).	
Landscape	L	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation

Appendix I Relationship with Legislation and Other Policies, Plans and Programmes

This appendix is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
International/European Level			
SEA Directive (2001/42/EC)	• Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. • Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment.	• Carry out and environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive. • Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme. • Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission. • Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects. • Inform relevant authorities and stakeholders on the decision to implement the plan or programme. • Issue a statement to include requirements detailed in Article 9 of the Directive. • Monitor and mitigate significant environmental effects identified by the assessment.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EIA Directive (2011/92/EU as amended by 2014/52/EU)	• Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment. • Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.	• All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. • For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III. • The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor. • Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Habitats Directive (92/43/EEC)	• Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora. • Contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora. • Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of community interest. • Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements.	• Propose and protect sites of importance to habitats, plant and animal species. • Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. • Carry out comprehensive assessment of habitat types and species present. • Establish a system of strict protection for the animal species and plant species listed in Annex IV.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Birds Directive (2009/147/EC)	• Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats. • Protect, manage and control these species and comply with regulations relating to their exploitation. • The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.	• Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1. • Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas). • Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes. • Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Nitrates Directive (91/676/EC)	• Reducing water pollution caused or induced by nitrates from agricultural sources and – preventing further such pollution.	Ireland's Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland's third NAP came into operation in 2014. Each Member State's NAP must include: • a limit on the amount of livestock manure applied to the land each year • set periods when land spreading is prohibited due to risk	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• set capacity levels for the storage of livestock manure	environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Integrated Pollution Prevention Control Directive (2008/1/EC)	• The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions.	The IPPC Directive is based on several principles: • an integrated approach • best available techniques, • flexibility; and • public participation	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Plant Protection (products) Directive 2009/127/EC	• The Directive aims at reducing the risks and impacts of pesticide use on human health and • the environment by introducing different targets, tools and measures such as Integrated Pest • Management (IPM) or National Action Plans (NAPs).	• The Framework Directive applies to pesticides which are plant protection products. • Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Renewables Directive (2009/28/EC)	• The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU. • It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets. • All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020.	• The Directive promotes cooperation amongst EU countries (and with countries outside the EU) to help them meet their renewable energy targets. • The Directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables. • EU countries set out how they plan to meet these targets and the general course of their renewable energy policy in national renewable energy action plans. • Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Indirect Land Use Change Directive (2012/0288 (COD))	• Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption. • The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor. • Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise, and the use of electricity from renewable energy sources.	• Limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive; • Improve the greenhouse gas performance of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations subject to protecting installations already in operation on 1st July 2014; • Encourage a greater market penetration of advanced (low-ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels; • Improve the reporting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Alternative Fuels Infrastructure Directive (2014/94/EU)	• This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport.	• This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refuelling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refuelling points, and user information requirements.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Energy Efficiency Directive (2012/27/EU)	• Establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. • Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption.	• Energy distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures • EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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		• The public sector in EU countries should purchase energy efficient buildings, products and services • Every year, governments in EU countries must carry out energy efficient renovations on at least 3% (by floor area) of the buildings they own and occupy • Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering • National incentives for SMEs to undergo energy audits • Large companies will make audits of their energy consumption to help them identify ways to reduce it • Monitoring efficiency levels in new energy generation capacities.	cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Seveso Directive (2012/18/EU)	• This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner.	The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas: • Classification, labelling and packaging of chemicals; • The Union's Civil Protection Mechanism; • The Security Union Agenda including CBRN-E and Protection of critical infrastructure; • Policy on environmental liability and on the protection of the environment through criminal law; • Safety of offshore oil and gas operations.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Union Biodiversity Strategy to 2020	• Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy. • Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible.	• Outlines six targets and twenty actions to aid European Union in halting the loss to biodiversity and eco-system services. • The six targets cover: o Full implementation of EU nature legislation to protect biodiversity o Maintaining, enhancing and protecting for ecosystems, and green infrastructure o Ensuring sustainable agriculture, and forestry o Sustainable management of fish stocks o Reducing invasive alien species o Addressing the global need to contribute towards averting global biodiversity loss	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)	• The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments.	The Strategy contains specific commitments and actions to be delivered by 2030, including: • Establishing a larger EU-wide network of protected areas on land and at sea, building upon existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value. • An EU Nature Restoration Plan - a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss. • A set of measures to enable the necessary transformative change: setting in motion a new, strengthened governance framework to ensure better implementation and track progress, improving knowledge, financing and investments and better respecting nature in public and business decision-making. • Measures to tackle the global biodiversity challenge, demonstrating that the EU is ready to lead by example towards the successful adoption of an ambitious global biodiversity framework under the Convention on Biological Diversity.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Green Infrastructure Strategy	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	• Promoting GI in the main EU policy areas. • Supporting EU-level GI projects. • Improving access to finance for GI projects. • Improving information and promoting innovation.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage	• links concepts of nature conservation and the preservation of cultural properties; and • recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.	• sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them; • each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage; • encourages to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

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			framework for environmental protection and management.
UN (1992) The Convention on Biological Diversity	An overall objective is to develop national strategies for the conservation and sustainable use of biological diversity.	The Convention has three main goals: • the conservation of biological diversity (or biodiversity); • the sustainable use of its components; and • the fair and equitable sharing of benefits arising from genetic resources.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN (1992) Framework Convention on Climate Change	It is aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.	The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions. The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol. At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.	• The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II). • EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP. • Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU 2020 Climate and Energy Package	• Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020. • Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels. • Aims to raise the share of EU energy consumption produced from renewable resources to 20%. • Achieve a 20% improvement in the EU's energy efficiency.	Four pieces of complimentary legislation: • Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps. • Member States have agreed national targets for non-EU ETS emissions from countries outside the EU. • Meet the national renewable energy targets of 16% for Ireland by 2020. • Preparing a legal framework for technologies in carbon capture and storage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU 2030 Framework for Climate and Energy	• A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries. • Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as-usual scenario.	To meet the targets, the European Commission has proposed the following policies for 2030: • A reformed EU emissions trading scheme (ETS). • New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection capacity between EU countries. • First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty, greater transparency, enhanced policy coherence and improved coordination across the EU.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Clean Air for Europe Directive (2008/50/EC) **(EU Air Framework Directive)** **Fourth Daughter Directive (2004/107/EC)**	• The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive). • Sets new air quality objectives for $PM_{2.5}$ (fine particles) including the limit value and exposure related objectives. • Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values. • Allows the possibility for time extensions of three years (PM_{10}) or up to five years (NO_2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.	• Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole. • Aims to assess the ambient air quality in Member States on the basis of common methods and criteria. • Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures. • Ensures that such information on ambient air quality is made available to the public. • Aims to maintain air quality where it is good and improving it in other cases.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

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	• The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.	• Aims to promote increased cooperation between the Member States in reducing air pollution.	framework for environmental protection and management.
Noise Directive (2002/49/EC)	The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.	The Directive requires competent authorities in Member States to: • Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels; • Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and • Inform and consult the public about noise exposure, its effects, and the measures considered to address noise. The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Floods Directive (2007/60/EC)	• Establishes a framework for the assessment and management of flood risks • Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community	• Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment • Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3. • Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above. • Inform the public and allow the public to participate in planning process.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Framework Directive (2000/60/EC)	• Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats. • Preserve and prevent the deterioration of water status and where necessary improve and maintain "good status" of water bodies. • Promote sustainable water usage. • The Water Framework Directive repealed the following Directives: o The Drinking Water Abstraction Directive o Sampling Drinking Water Directive o Exchange of Information on Quality of Surface Freshwater Directive o Shellfish Directive o Freshwater Fish Directive o Groundwater (Dangerous Substances) Directive o Dangerous Substances Directive	• Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive. • Achieve "good status" for all waters. • Manage water bodies based on identifying and establishing river basins districts. • Involve the public and streamline legislation. • Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas. • Establish a programme of monitoring for surface water status, groundwater status and protected areas. • Recover costs for water services.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Directive (2006/118/EC)	• Protect, control and conserve groundwater. • Prevent the deterioration of the status of all bodies of groundwater. • Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.	• Meet minimum groundwater standards listed in Annex 1 of Directive. • Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Drinking Water Directive (98/83/EC)	• Improve and maintain the quality of water intended for human consumption. • Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.	• Set values applicable to water intended for human consumption for the parameters set out in Annex I. • Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a). • Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5. • Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause. • Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action. • Undertake remedial action to restore the quality of the water where necessary to protect human health.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial.	
Urban Waste Water Treatment Directive (91/271/EEC)	• This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. • The objective of the Directive is to protect the environment from the adverse effects of waste water discharges.	• Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment. • Annex II requires the designation of areas sensitive to eutrophication which receive water discharges. • Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU	• Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.	• Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent. • Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. • Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7. • The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive. • The competent authority shall be entitled to initiate cost recovery proceedings against the operator. • The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met. • The Environmental Liability Directive has been amended through a number of Directives. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing knowledge and new needs.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Convention on the Protection of the Archaeological Heritage (Valletta 1992)	• The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage. It also constitutes an institutional framework for pan-European co-operation on the archaeological heritage, entailing a systematic exchange of experience and experts among the various States.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)	• The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.	• The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties. • The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')	• It is aimed to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of human societies around the World.	• (I) Document and understand industrial heritage structures, sites, areas and landscapes and their values; • (II) Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes;	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all

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		• (III) Conserve and maintain the industrial heritage structures, sites, areas and landscapes; and • (IV) Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research.	environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)	• Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time. • A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.	• Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights. • Recognise individual and collective responsibility towards cultural heritage. • Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal. • Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society. • Greater synergy of competencies among all the public, institutional and private actors concerned.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Landscape Convention 2000	• The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the transformation of landscapes. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public's wish to enjoy high quality landscapes.	• Promote protection, management and planning of landscapes. • Organise European co-operation on landscape issues.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)	It identifies three key objectives: • to protect, conserve and enhance the Union's natural capital • to turn the Union into a resource-efficient, green, and competitive low-carbon economy • to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing	Four so called "enablers" will help Europe deliver on these objectives (goals): • Better implementation of legislation. • Better information by improving the knowledge base. • More and wiser investment for environment and climate policy. • Full integration of environmental requirements and considerations into other policies. Two additional horizontal priority objectives complete the programme: • To make the Union's cities more sustainable. • To help the Union address international environmental and climate challenges more effectively.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)	The convention has three main aims: • to conserve wild flora and fauna and their natural habitats • to promote cooperation between states • to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species	The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also: • Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control. • Look at implementing the Bern Convention in central Eastern Europe and the Caucus. • Take account of the potential impact on natural heritage by other policies. • Promote education and information of the public, ensuring the need to conserve species is understood and acted upon. • Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co-operation with other organisations. • Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Bali Road Map (2007)	The overall goals of the project are twofold: • To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and • To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities.	The Bali Action Plan is centred on four main building Blocks: • mitigation • adaptation • technology • financing	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Cancun Agreements (2010)	Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover: • Mitigation • Transparency of actions	Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all

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	• Technology • Finance • Adaptation • Forests • Capacity building		environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Doha Climate Gateway (2012)	Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.	• Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020); • Complete the work under Bali Action Plan and to focus on new completing new targets; • Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; • Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and • Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Common Agricultural Policy	• To improve agricultural productivity, so that consumers have a stable supply of affordable food; and • To ensure that EU farmers can make a reasonable living.	• ensuring viable food production that will contribute to feeding the world's population, which is expected to rise considerably in the future; • Climate change and sustainable management of natural resources; • Looking after the countryside across the EU and keeping the rural economy alive.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU REACH Regulation (EC 1907/2006)	• Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.	The aims are achieved by applying REACH, namely: • Registration, • Evaluation, • Authorisation; and • Restriction of chemicals. REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Stockholm Convention	• The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.	• Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced Persistent Organic Pollutants (POPs) that are listed in Annex A to the Convention • Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention • Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention • Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner • To target additional POPs • Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ramsar Convention	The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".	Under the "three pillars" of the Convention, the Contracting Parties commit to: • Work towards the wise use of all their wetlands; • Designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management; • Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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European 2020 Strategy for Growth	Europe 2020 sets out a vision of Europe's social market economy for the 21st century and puts forward three mutually reinforcing priorities: • Smart growth: developing an economy based on knowledge and innovation; • Sustainable growth: promoting a more resource efficient, greener and more competitive economy; • Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.	In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020: 1. 75 % of the population aged 20-64 should be employed; 2. 3% of the EU's GDP should be invested in R&D; 3. the "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right); 4. the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree; 5. 20 million less people should be at risk of poverty.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Parliament resolutions, including the European Green Deal (EGD) 2020	The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's quality of life, caring for nature and leaving no one behind.	• It sets out a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy, restore biodiversity and cut pollution. • It outlines investments required, financing tools available and explains how to ensure a just and inclusive transition. • In order to meet the goal to become climate neutral by 2050 as part of the European Green Deal, the European Union (EU) Commission proposed on 4th March 2020 to bring about the first European Climate Law and legally bind the target of net zero greenhouse gas emissions by 2050.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU (2018) Clean Air Policy Package	Aims to substantially reduce air pollution across the EU.	The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Leaders Pledge for Nature 2020	Political leaders (including Taoiseach Michael Martin) participating in the United Nations Summit on Biodiversity in September 2020, representing 75 countries from all regions and the European Union, have committed to reversing biodiversity loss by 2030.	As part of the UN Decade of Action to achieve sustainable development, the leaders commit to achieve the vision of Living in Harmony with Nature by 2050 by undertaking ten actions, including: • Putting biodiversity, climate, and the environment at the heart of COVID-19 recovery strategies and investments as well as national and international development and cooperation; • Developing and implementing an ambitious and transformational post-2020 global biodiversity framework for adoption at the 15th meeting of the Conference of the Parties (COP 15) to the UN Convention on Biological Diversity (CBD) in Kunming, China, as a key instrument to reach the SDGs; • Raising ambition and aligning domestic climate policies with the Paris Agreement on climate change, with enhanced nationally determined contributions (NDCs) and long-term strategies consistent with the temperature goals of the Paris Agreement, and the objective of net zero greenhouse gas (GHG) emissions by mid-century, and strengthen climate resilience of economies and ecosystems; and • Mainstream biodiversity into relevant sectoral and cross-sectoral policies at all levels, including in food production, agriculture, fisheries and forestry, energy, tourism, infrastructure and extractive industries, and trade and supply chains, as well as into key international agreements and processes.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Level			
Ireland 2040 - Our Plan, the National Planning Framework and the National Development Plan (2018-2027)	• The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between. • The National Development Plan sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework. This will guide national, regional and local planning and investment decisions in Ireland over the next two decades, to cater for an expected population increase of over 1 million people.	National Strategic Outcomes as follows: 1. Compact Growth 2. Enhanced Regional Accessibility 3. Strengthened Rural Economies and Communities 4. Sustainable Mobility 5. A Strong Economy, supported by Enterprise, Innovation and Skills 6. High-Quality International Connectivity 7. Enhanced Amenity and Heritage 8. Transition to a Low-Carbon and Climate-Resilient Society 9. Sustainable Management of Water and other Environmental Resources 10. Access to Quality Childcare, Education and Health Services	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Planning, Land Use and Transport Outlook 2040 [in preparation]	The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will: 1. Quantify in broad terms the appropriate scale of financial investment in land transport over the long term; 2. Consider how fiscal, environmental and technological developments might impact on this investment; and, 3. Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040.	In preparation	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Planning and Development Act 2000 (as amended)	• The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2009 with specific regard given to supporting economic renewal and sustainable development.	• Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas. • There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission. • Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large-scale projects. • Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural heritage and for the conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011	• The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive.	• The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning. • These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning. • Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)	• These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.	• They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites. • The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waste Management Act 1996, as amended	• To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters.	• The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste facilities, measures to reduce the production of waste and/or promote its recovery.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities Environmental Objectives (FPM) Regulations 2009 (S.I 296 of 2009)	• The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels	• Set environmental quality objectives for the habitats of the freshwater pearl mussel populations named in the First Schedule to these Regulations that are within the boundaries of a site notified in a candidate list of European sites, or designated as a Special Area of Conservation, under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997). • Require the production of sub-basin management plans with programmes of measures to achieve these objectives. • Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I 9 of 2010), as amended (S.I. No. 366 of 2016)	• To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.	The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values. • Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of pollution. • Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values. • Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2014 (S.I. No. 31 of 2014)	• These Regulations, which give effect to Ireland's 3rd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources	The Regulations include measures such as: • Periods when land application of fertilisers is prohibited • Limits on the land application of fertilisers • Storage requirements for livestock manure; and • Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Action and Low Carbon Development Act 2015, as amended	• An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.	When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to: • The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective, • The policy of the Government on climate change, • Climate justice, • Any existing obligation of the State under the law of the European Union or any international agreement referred to in section 2; and • The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Action Plan 2021	• The Climate Action Plan 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.'	The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, including in 2022, to ensure alignment with Ireland's legally binding economy-wide carbon budgets and sectoral ceilings.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Sustainable Development Goals National Implementation Plan (2018 – 2020)	• National Implementation Plan 2018 – 2020 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals (SDGs). • The Plan provides an 'SDG Matrix' which identifies the responsible Government Departments for each of the 169 targets. It also includes an 'SDG Policy Map' indicating the relevant national policies for each of the targets.	The Plan identifies four strategic priorities to guide implementation: • Awareness: raise public awareness of the SDGs; • Participation: provide stakeholders opportunities to engage and contribute to follow-up and review processes, and further develop national implementation of the Goals; • Support: encourage and support efforts of communities and organisations to contribute towards meeting the SDGs, and foster public participation; and • Policy alignment: develop alignment of national policy with the SDGs and identify opportunities for policy coherence.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Infrastructure and Capital Investment Plan (2016-2021)	• €27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland.	• This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all. • It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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			cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Union (Birds and Natural Habitats) (Sea-Fisheries) Regulations 2013 (S.I. 290 of 2013)	These regulations have been drafted to implement the responsibilities of the Minister for Agriculture Food and the Marine in relation to sea fisheries in European sites, in accordance with the Habitats and Birds Directives as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011).	• Regulation 3 provides for the submission of a Fisheries Natura Plan in relation to planned fisheries; • Regulation 4 provides for a screening of a Fisheries Natura Plan to determine whether or not an appropriate assessment is required; • Regulation 5 provides for an appropriate assessment of a Fisheries Natura Plan and also provides for public and statutory consultation; • Regulation 6 provides for the Minister to make a determination to adopt a Fisheries Natura Plan. The Minister may amend, withdraw or revoke a plan; • Regulation 7 provides for publication of the adopted Fisheries Natura Plan; • Regulation 8 provides for a Risk Assessment of unplanned fisheries and also provides for public and statutory consultation on the assessment; • Regulation 9 provides for the issue of a Natura Declaration to prohibit, restrict including restricting by permit, control, etc. of sea fishing activities; • Regulation 10 provides for Natura Permits to be issued where required by Natura Declarations; and • Regulations 11 to 31 deal with functions of authorised officers and related matters, offences, etc.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)	• The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC.	• The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Strategy for Renewable Energy (2012-2020)	• The Government's overarching strategic objective is to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that at a minimum it will achieve its legally binding 2020 target in the most cost-efficient manner for consumers. • Of critical importance is the role which the renewable energy sector plays in job creation and economic activity as part of the Government's action plan for jobs.	This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020: • Increasing on and offshore wind, • Building a sustainable bioenergy sector, • Fostering R&D in renewables such as wave & tidal, • Growing sustainable transport; and • Building out robust and efficient networks.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Governments White Paper 'Ireland's Transition to a Low Carbon Energy Future' (2015 – 2030)	The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.	2030 will represent a significant milestone, meaning: Reduced GHG emissions from the energy sector by between 80% and 95% Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Policy Position on Climate Action and Low Carbon Development (2014)	• The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050. • Statutory authority for the plans is set out in the Climate Action and Low Carbon Development Act 2015, as amended.	National climate policy in Ireland: • Recognises the threat of climate change for humanity; • Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future; • Recognises the challenges and opportunities of the broad transition agenda for society; and • Aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
National Clean Air Strategy [in preparation]	The Clean Air Strategy will provide the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives.	• Having a National Strategy will provide a policy framework by which Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation. • The Strategy should also help tackle climate change. • The Strategy will consider a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture. • In any discussion relating to clean air policy, the issue of people's health is paramount and this will be a strong theme of the Strategy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EirGrid's Grid25 Strategy and associated Grid25 Implementation Programme 2017-2022	EirGrid's mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland; "*Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way."*	• Grid25, EirGrid's roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
All Island Grid Study 2008	• The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network ("the grid") on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources. • The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system.	Key conclusions of the study: • The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study. • All but the high coal-based portfolio lead to significant reductions of CO_2 emissions compared to portfolio 1 • All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports. • The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact. • Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered. • Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Strategy for the Future Development of National and Regional Greenways (2018)	• The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users. • It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.	• A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure; • Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity; • Greenways that provide a substantially segregated off road experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do; and • Greenways that provide opportunities for the development of local businesses and economies, and • Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Water Resources Plan [in preparation]	• The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment. • The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst minimising the impact on the environment.	The key objectives of the plan are to: • Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions • Assess the current and future water demand from homes, businesses, farms, and industry • Consider the impacts of climate change on Ireland's water resources • Develop a drought plan advising measures to be taken before and during drought events • Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water • Identify, develop and assess options to help meet potential shortfalls in water supplies • Assess the water resources available at a national level including lakes, rivers and groundwater	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Strategic Plan for Aquaculture Development (2014-2020)	Vision: *"Aquaculture in RC is economically, socially and ecologically sustainable, with a developed infrastructure, strong human potentials and an organized*	General development and growth objectives of marine and freshwater aquaculture (2014 – 2020):	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-

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	market. The consumption of aquaculture products is equal or above EU average, while the technological development of the sector is among the best in the EU."	• Strengthen the social, business and administrative environment for aquaculture development • Increase in the total production to 24,050 tonnes while adhering to the principles of economic, social and ecological sustainability • Improvement of the perception and increase in the national consumption of National products	combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Construction 2020, A Strategy for a Renewed Construction Sector	• Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry. • The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated.	This Strategy therefore addresses issues including: • A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong; • Continuing improvement of the planning process, striking the right balance between current and future requirements; • The availability of financing for viable and worthwhile projects; • Access to mortgage finance on reasonable and sustainable terms; • Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety; • Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and • Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Sustainable Development: A Strategy for Ireland (1997)	• The overall aim of this Strategy is to ensure that economy and society in Ireland can develop to their full potential within a well-protected environment, without compromising the quality of that environment, and with responsibility towards present and future generations and the wider international community.	• The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to re-orientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)	• The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively managing its change. It will provide a high-level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions. • Landscape Strategy Vision: *"Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning."*	The objectives of the National Landscape Strategy are to: • Implement the European Landscape Convention by integrating landscape into the approach to sustainable development; • Establish and embed a public process of gathering, sharing and interpreting scientific, technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape; • Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape; • Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's National Waste Policy 2020 – 2025	The Policy sets out new targets to tackle waste and move towards a circular economy.	The plan includes halving our food waste by 2030, the introduction of a deposit and return scheme for plastic bottles and cans, a ban on certain single use plastics from July 2021, and a levy on disposable cups. Other measures include applying green criteria and circular economy principles in all public procurement, a waste recovery levy to encourage recycling, and ensuring all packaging is reusable or recyclable by 2030.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Hazardous Waste Management Plan (EPA) 2014-2020	This Plan sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published. Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period: • To prevent and reduce the generation of hazardous waste by industry and society generally; • To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste;	The revised Plan makes 27 recommendations under the following topics: • Prevention • Collection • Self-sufficiency • Regulation • Legacy issues • North-south cooperation • Guidance and awareness • Implementation	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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	• To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export; • To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.		
Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines	• The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density.	• The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025	• The vision is: *"A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility."*	These four goals are interlinked, interdependent and mutually supportive: • Goal 1: Increase the proportion of people who are healthy at all stages of life • Goal 2: Reduce health inequalities • Goal 3: Protect the public from threats to health and wellbeing • Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Our Sustainable Future: A framework for Sustainable Development for Ireland 2012	A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.	• Sets out the challenges facing us and how we might address them in making sure that quality of life and general wellbeing can be improved and sustained in the decades to come.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)	• Outlines a policy for how a sustainable travel and transport system can be achieved. • Sets out five key goals: o To reduce overall travel demand. o To maximise the efficiency of the transport network. o To reduce reliance on fossil fuels. o To reduce transport emissions. o To improve accessibility to transport.	• Others lower level aims include: o reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment o ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking o improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies o strengthening institutional arrangements to deliver the targets	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Investing in our Future: A Strategic Framework for Investment in Land Transport (SFILT) – Department of Transport, Tourism and Sport	• SFILT sets out a set of priorities to guide the allocation of the State's investment to best develop and manage Ireland's land transport network over the coming decades.	The three priorities stated in SFILT are: • Priority 1: Achieve steady state maintenance (meaning that the maintenance and renewal of the existing transport system is at a sufficient level to maintain the system in an adequate condition); • Priority 2: Address urban congestion; and • Priority 3: Maximise the value of the road network. In delivering on the steady state maintenance objective set out in SFILT, the Plan includes for: • Planned replacement programme for the bus fleet operated under Public Service Obligation ("PSO") contracts; • Tram refurbishment and asset renewal in the case of light rail; and • To the extent within the Authority' remit, support for the operation of the existing rail network within the GDA.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)	• White paper setting out a framework for delivering a sustainable energy future in Ireland. • Outlines strategic Goals for: o Security of Supply o Sustainability of Energy o Competitiveness of Energy Supply	The underpinning Strategic Goals are: • Ensuring that electricity supply consistently meets demand • Ensuring the physical security and reliability of gas supplies to Ireland • Enhancing the diversity of fuels used for power generation • Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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		• Creating a stable attractive environment for hydrocarbon exploration and production • Being prepared for energy supply disruptions	cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans	• NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur	• Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change. • Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance-based actions. • Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change. • Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
2030 Climate and Energy Framework	Adopted October 2014, includes EU-wide targets and policy objectives for the period from 2021 to 2030.	Key targets for 2030: • At least 40% cut in greenhouse gas emissions (from 1990 levels). • At least 32% share for renewable energy. This was revised upwards in 2018. • At least 32.5% improvement in energy efficiency. This was revised upwards in 2018.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Renewable Energy Action Plan (2010)	• Sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.	Including Ireland's 16% target of gross final consumption to come from renewables by 2020.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Energy Efficiency Action Plan for Ireland (2009 – 2020)	• This is the second National Energy Efficiency Action Plan for Ireland.	• The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Energy & Climate Plan (NECP) 2021 – 2030	Irelands National Energy & Climate Plan (NECP) 2021-2030 takes into account energy and climate policies developed up to 2019, the levels of demographic and economic growth identified in the National Planning Framework - Project 2040 and includes all of the climate and energy measures as set out in the National Development Plan 2018-2027.	The planned policies and measures that were identified up to the end of 2019, collectively deliver a 30% reduction by 2030 in non-Emission Trading Systems greenhouse gas emissions (from 2005 levels). Ireland is committed to achieving a 7% annual average reduction in greenhouse gas emissions between 2021 and 2030. The NECP was drafted in line with the current EU effort-sharing approach, before the Government committed to this higher level of ambition, and therefore does not reflect this higher commitment. Ireland is currently developing those policies and measures and intends to integrate the revision of the NECP into the process which will be required for increasing the overall EU contribution under the Paris Agreement.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Wildlife Act of 1976 **Wildlife (Amendment) Act, 2000**	• The act provides protection and conservation of wild flora and fauna.	• Provides protection for certain species, their habitats and important ecosystems • Give statutory protection to NHAs • Enhances wildlife species and their habitats • Includes more species for protection	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with

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			other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Actions for Biodiversity (2017-2021) Ireland's National Biodiversity Plan	• Sets out strategic objectives, targets and actions to conserve and restore Ireland's biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally.	• To mainstream biodiversity in the decision-making process across all sectors. • To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity. • To increase awareness and appreciation of biodiversity and ecosystems services. • To conserve and restore biodiversity and ecosystem services in the wider countryside. • To conserve and restore biodiversity and ecosystem services in the marine environment. • To expand and improve on the management of protected areas and legally protected species. • To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Broadband Plan (2012)	• Sets out the strategy to deliver high speed broadband throughout Ireland.	The Plan sets out: • A clear statement of Government policy on the delivery of High-Speed Broadband. • Specific targets for the delivery and rollout of high-speed broadband and the speeds to be delivered. • The strategy and interventions that will underpin the successful implementation of these targets. • A series of specific complementary measures to promote implementation of Government policy in this area.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003) **European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)** **European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)**	• Transpose the Water Framework Directive into legislation. • Outlines the general duty of public authorities in relation to water. • Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions.	• Requires the public to be informed and consulted on the Plan and for progress reports to be published on River Basin Districts (RBDs). • Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies. • Allows the competent authority to recover the cost of damage/destruction of status of water body. • Outlines environmental objectives and programme of measures and environmental quality standards for priority substances. • Outlines criteria for assessment of groundwater. • Outlines environmental objectives to be achieved for surface water bodies. • Outlines surface water quality standards. • Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)	• Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation.	• Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality. • Sets groundwater quality standards. • Outlines threshold values for the classification and protection of groundwater.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Pollution Acts 1977 to 1990	• The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.	The Water Pollution Acts enable local authorities to: • Prosecute for water pollution offences. • Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters. • Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution. • issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices; • Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects. • Prepare water quality management plans for any waters in or adjoining their functional areas.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Water Services Act 2007 **Water Services (Amendment) Act 2012** **Water Services Act (No. 2) 2013**	• Provides the water services infrastructure. • Outlines the responsibilities involved in delivering and managing water services. • Identifies the authority in charge of provision of water and waste water supply. • Irish Water was given the responsibility of the provision of water and waste water services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland.	Key strategic objectives include: • Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector. • Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced. • Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards • Ensuring the provision of the remaining infrastructure needed to provide secondary waste water treatment, for compliance with the requirements of the EU Urban Waste water Treatment Directive. • Promoting water conservation through Irish Water's Capital Investment Plan, the Rural Water Programme and other measures. • Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems. • Ensuring a fair funding model to deliver water services. • Overseeing the establishment of an economic regulation function under the CER.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)	• This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.	Six strategic objectives as follows: • Meet Customer Expectations. • Ensure a Safe and Reliable Water Supply. • Provide Effective Management of Waste water. • Protect and Enhance the Environment. • Support Social and Economic Growth. • Invest in the Future.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas	• Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs	• Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning. • Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Harvest 2020	• Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.	• Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Agri-vision 2015 Action Plan	Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment	not applicable	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Rural Environmental Protection Scheme (REPS) **Agri-Environmental Options Scheme (AEOS)**	• Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection. • GLAS is the new replacement for REPS and AEOS which are both expiring.	• Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation. • Protect biodiversity, endangered species of flora and fauna and wildlife habitats. • Ensure food is produced with the highest regard to the environment. • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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Green, Low-Carbon, Agri-environment Scheme (GLAS)			cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Rural Development Programme	The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas	At a more detailed level, the programme also: • Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation; • Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and • Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as non-agricultural activities	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Realising our Rural Potential: The Action Plan for Rural Development 2017	The Plan aims to unlock the potential of rural Ireland through a framework of supports at national and local level which will ensure that people who live in rural areas have increased opportunities for employment locally, and access to public services and social networks that support a high quality of life.	The Plan contains 276 actions across five key pillars. The five pillars are: • Supporting Sustainable Communities, • Supporting Enterprise and Employment, • Maximising our Rural Tourism and Recreation Potential, • Fostering Culture and Creativity in Rural Communities, and • Improving Rural Infrastructure and Connectivity.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Forestry Programme (2014-2020)	• Represents Ireland's proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020.	Measures include the following: • Afforestation and Creation of Woodland • NeighbourWood Scheme • Forest Roads • Reconstitution Scheme • Woodland Improvement Scheme • Native Woodland Conservation Scheme • Knowledge Transfer and Information Actions • Producer Groups • Innovative Forest Technology • Forest Genetic Reproductive Material • Forest Management Plans	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
River Basin Management Plan	• The River Basin Management Plan sets out the measures planned to maintain and improve the status of waters.	• Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive. • Identify and manages water bodies in the RBD. • Establish a programme of measures for monitoring and improving water quality in the RBD. • Involve the public through consultations.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Peatlands Strategy (2015-2025)	This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.	Objectives of the Strategy include: • To give direction to Ireland's approach to peatland management. • To apply to all peatlands, including peat soils. • To ensure that the relevant State authorities and state-owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions. • To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsible. • To inform appropriate regulatory systems to facilitate good decision making in support of responsible use.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme	• The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive.	CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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			cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft National Bioenergy Plan 2014 - 2020	The Draft Bioenergy Plan sets out a vision as follows: • Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.	Three high level goals, of equal importance, based on the concept of sustainable development are identified: • To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs. • To increase awareness of the value, opportunities and societal benefits of developing bioenergy. • To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Renewable Electricity Policy and Development Framework (DCCAE) 2016	Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.	Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017- 2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen targets • Biofuels targets • LPG targets • Synthetic and paraffinic fuels targets	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Wise 2025 (DAFM)	Food Wise 2025 sets out a ten-year plan for the agri-food sector. It underlines the sector's unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.	Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: • 85% increase in exports to €19 billion. • 70% increase in value added to €13 billion. • 60% increase in primary production to €10 billion. • The creation of 23,000 additional jobs all along the supply chain from producer level to high-end value-added product development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Cycle Network Scoping Study 2010	• Outlines objectives and actions aimed at developing a strong cycle network in Ireland • Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed	• Sets a target where 10% of all journeys will be made by bike by 2020 • Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Policy Framework for Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030	• This National Policy Framework on Alternative Fuels Infrastructure for Transport represents the first step in communicating our longer-term national vision for decarbonising transport by 2050, the cornerstone of which is our ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable.	This policy set out to achieve five key goals in transport: • Reduce overall travel demand • Maximise the efficiency of the transport network • Reduce reliance on fossil fuels • Reduce transport emissions • Improve accessibility to transport	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with

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	• By 2030 it is envisaged that the movement in Ireland to electrically-fuelled cars and commuter rail will be well underway, with natural gas and biofuels developing as major alternatives in the freight and bus sectors.	These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.	other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Action Plan 2019-2021	The Tourism Action Plan 2019-2021 sets out actions that the Tourism Leadership Group has identified as priorities to be progressed until 2021 in order to maintain sustainable growth in overseas tourism revenue and employment. Each action involves specific tourism stakeholders, both in the public and private sectors, all of whom we expect to proactively work towards the completion of actions within the specified timeframe.	The Plan contains 27 actions focusing on the following areas: • Policy Context • Marketing Ireland as a Visitor Destination • Enhancing the Visitor Experience • Research in the Irish Tourism Sector • Supporting Local Communities in Tourism • Wider Government Policy • International Context • Co-ordination Structures	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025	The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.	The Tourism Policy Statement sets three headline targets to be achieved by 2025: • Overseas tourism revenue of €5 billion per year • net of inflation excluding carrier receipts; • 250,000 people employed in tourism; and • 10 million overseas visitors to Ireland per year.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Renewable Electricity Policy and Development Framework (DCCAE)	Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.	Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála. Methodology: Development of the Policy and Development Framework is to be informed by the carrying out of an SEA, including widespread consultation with stakeholders and public, and with AA under the Habitats Directive.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017- 2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen targets • Biofuels targets • LPG targets Synthetic and paraffinic fuels targets	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
People Place and Policy - Growing Tourism to 2025, (DTTAS, 2014)	Growing Tourism to 2025 is a policy framework for the development of tourism within the Country.	The framework establishes the overall tourism goal of Government; • Employment in the tourism sector will be 250,000 by 2025, compared with around 200,000 at present. • There will be 10 million visits to Ireland annually by 2025. The Government's ambition is that overseas tourism revenue will reach €5 billion in real terms by 2025.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterways Ireland Heritage Plan 2016-2020	The overarching aim of the Plan is to: *"Identify and protect the unique waterways heritage and promote its sustainable use for the enjoyment of this and future generations".*	Four objectives of the Plan include the following: • Objective 1: Fostering partnerships to continue building waterway heritage knowledge through storing information, undertaking research and developing best practice. • Objective 2: Promoting awareness, appreciation and enjoyment of our waterway heritage with a focus on community engagement. • Objective 3: Promoting the integrated management, conservation, protection and sustainable use of the inland navigable waterway asset.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the

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		• Objective 4: To develop Waterways Ireland as a heritage organisation committed to achieving the aim of this plan.	achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Development and Innovation – A Strategy for Investment 2016-2022, (Fáilte Ireland, 2016)	This strategy sets out the framework and mechanism for the delivery of investment to cities, towns, villages, communities and businesses across the country. It identifies priorities to support innovation in the sector to retain and grow the country's competitiveness in the marketplace. Its ultimate aim is to strengthen the appeal of Ireland for international visitors.	The objectives of the Tourism Development and Innovation Strategy are: • To successfully and consistently deliver a world class visitor experience; • To support a tourism sector that is profitable and achieves sustainable levels of growth and delivers jobs; • To facilitate communities to play an enhanced role in developing tourism in their locality, thereby strengthening and enriching local communities; and • To recognise, value and enhance Ireland's natural environment as the cornerstone of Irish tourism.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Aquaculture Acts 1997 to 2006 (Sea-Fisheries and Maritime Jurisdiction Act 2006 (8/2006), s. 1(3)), Fisheries (Amendment) Act 1997 (23/1997), Fisheries and Foreshore (Amendment) Act 1998 (54/1998), ss. 2, 3 and 4, Fisheries (Amendment) Act 2001 (40/2001) Sea-Fisheries and Maritime Jurisdiction Act 2006 (8/2006)	The Aquaculture and Foreshore Management Division ensures the efficient and effective management of Aquaculture licensing and Foreshore licensing in respect of Aquaculture and Sea Fishery related activities.	The Strategic Objectives of the Aquaculture and Foreshore Management Division are: • to develop and manage an efficient and effective regulatory framework in respect of Aquaculture licensing and Foreshore licensing of Aquaculture and Sea Fishery related activities; • to secure a fair financial return from the State's foreshore estate in the context of Aquaculture licensing and Foreshore licensing in respect of Aquaculture and Sea Fishery related activities; to progressively reduce arrears in the clearing of licence applications.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Foreshore Acts 1933 to 2011	The Foreshore Acts require that a lease or licence must be obtained from the Minister for Housing, Planning and Local Government for the carrying out of works or placing structures or material on, or for the occupation of or removal of material from, State-owned foreshore, which represents the greater part of the foreshore. Construction of permanent structures on privately owned foreshore also required the prior permission of the Minister under the Foreshore Act.	• Developments on the foreshore require planning permission in addition to a Foreshore Lease/Licence/Permission. All Foreshore Leases, Licences • Permissions are without prejudice to the powers of the local planning authority. Applicants should, therefore, consult initially with the local planning authority regarding their proposal. • In the case of developments on foreshore for, by or on behalf of a Local Authority where an EIS is required, applications should be made to An Bord Pleanála under Part XV, Planning and Development Act 2000.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Marine Planning Development Management Bill (General Scheme), 2019	The Bill seeks to establish in law a completely new regime for the maritime area which will replace existing State and development consent regimes and streamline arrangements on the basis of a single consent principle.	One of the aims is to establish a legal basis for An Bord Pleanála and coastal local authorities to consent to development in the maritime area, while retaining existing foreshore and planning permission provisions for aquaculture and sea fisheries related development. It will also provide for a single environmental impact assessment (EIA) and a single appropriate assessment (AA), where applicable.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Seafood Operational Programme (2014-2020)	The Operational Programme (OP) supported by the European Maritime and Fisheries Fund (EMFF) in Ireland aims at achieving key national development priorities along with the EU's "Europe 2020" objectives. The OP supports the general reform of the EU's Common Fisheries Policy (CFP) and the development of its Integrated Maritime Policy (IMP) in Ireland. The OP strategy is designed around the Irish national priorities in the agri-food sector: 'Act Smart' by encouraging knowledge and innovation, 'Think Green' through a responsible and sustainable use of resources, 'Achieve Growth' in order to maintain and create jobs.	The Irish OP is organised around priorities including the following • Union Priority 1 (UP1): €67 million (28% of the total allocation) aim at assuring the sustainable development of fishing activities, while protecting the marine environment. • Union Priority 2 (UP2): €30 million (12% of the total allocation) will support the Irish National Strategic Plan for Aquaculture that aims at boosting the competitiveness of the aquaculture sector. • Union Priority 3 (UP3): €84.8 million (35.4% of the total allocation) will go towards compliance with CFP rules regarding control and data collection.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Harnessing Our Ocean Wealth: An Integrated Marine Plan for Ireland 2012	Harnessing Our Ocean Wealth is an Integrated Marine Plan (IMP), setting out a roadmap for the Government's vision, high-level goals and integrated actions across policy, governance and business to enable our marine potential to be realised. Implementation of this Plan will see Ireland evolve an integrated system of policy and programme planning for our marine affairs.	• Sustainable economic growth of marine/ maritime sectors; • Increase the contribution to the national GDP; • Deliver a business friendly yet robust governance, policy and planning framework; • Protect and conserve our rich marine biodiversity and ecosystems; • Manage our living and non-living resources in harmony with the ecosystem; • Implement and comply with environmental legislation; • Building on our maritime heritage, strengthen our maritime identity; • Increase our awareness of the value, opportunities and societal benefits; and • Engagement and participation by all.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

Legislation, Plan, etc.	Summary of high-level aim / purpose / objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			framework for environmental protection and management.
All Ireland Pollinator Plan 2015-2020 and 2021-2025 (in preparation)	The All-Ireland Pollinator Plan is an island-wide attempt to reverse declines in pollinating insects in order to ensure the sustainability of our food, avoid additional economic impacts on agriculture, and protect the health of the environment. The main objectives include: • Making farmland, public land and private land in Ireland pollinator friendly; • Raising awareness of pollinators and how to protect them; • Managed pollinators – supporting beekeepers and growers; • Expanding our knowledge of pollinators and pollination service; and • Collecting evidence to track change and measure success.	• This voluntary Plan identified 81 actions, shared out between over 100 governmental and non-governmental organisations. • A large focus of the Plan is to identify actions to improve the quality and amount of flower-rich habitat. • Actions range from creating pollinator highways along our transport routes, to supporting pollinators on farmland, in gardens, businesses, and on public land.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Regional / County / Local Level			
Southern Regional Economic and Spatial Strategy 2020-2032	The Regional Spatial and Economic Strategy provides a long-term strategic planning and economic framework for the Southern Region in order to support the implementation of the National Planning Framework.	The Southern Regional Economic and Spatial Strategy includes provisions for its nine constituent local authorities: Waterford City and County Council, Cork City Council, Cork County Council, Tipperary County Council, Wexford County Council, Kerry County Council, Clare County Council, Limerick City and County Council, Kilkenny County Council and Carlow County Council.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Integrated Implementation Plan 2019-2024	The priorities in the Integrated Infrastructure Plan align with the objectives and priorities set out in the Greater Dublin Transport Strategy 2016-2035, focused on improving public and sustainable transport. While the bulk of the Plan relates solely to the Greater Dublin Area, certain areas such as public transport services and activities related to small public service vehicles are dealt with on a national basis.	The Implementation Plan identifies investment proposals for a number of areas including: • Bus • Light Rail; • Heavy Rai; • Integration Measures and Sustainable Transport Investment; • Integrated Service Plan; and • Integration and Accessibility.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterford Planning Landuse and Transport Strategy (PLUTS) 2004 – 2020	The concept of integrated land use and transport planning for the Waterford City.	The development strategy for Waterford City has been guided by the PLUTS since 2004. The PLUTS was initiated to provide a strong planning framework for the development of the City and Environs over the period up to 2020. It provides a coherent long term spatial context, within which more detailed statutory City and County Development Plans are developed.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterford Metropolitan Transport Strategy (WMATS) [in preparation]	The National Transport Agency (NTA), in conjunction with Waterford City and County Council and Kilkenny County Council has commenced the preparation of the Waterford Metropolitan Transport Strategy (WMATS) in tandem with the review of the County Development Plan. The core objective of the Services is to develop a transport strategy (Transport Strategy) for the Waterford Metropolitan Area (WMA) covering the period 2020 to 2040, and addressing all land transport modes.	The objective of the Transport Strategy is to provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in the WMA.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Management planning for nature conservation sites has a number of aims. These include: • To identify and evaluate the features of interest for a site • To set clear objectives for the conservation of the features of interest • To describe the site and its management • To identify issues (both positive and negative) that might influence the site • To set out appropriate strategies/management actions to achieve the objectives	• Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected. • These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Protection Schemes	A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.	• A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Land Use Plans (including Development Plans and Local Area Plans) in force within County Waterford and in other adjoining planning authorities	• Outline planning objectives for land use development. • Strategic framework for planning and sustainable development including those set out in National Planning Framework and Southern Regional Economic and Spatial Strategy. • Set out the policies and proposals to guide development in the relevant area.	• Identify future infrastructure, development and zoning required. • Protect and enhances amenities and environment. • Guide planning authority in assessing proposals. • Aim to guide development in the area and the amount of nature of the planned development. • Aim to promote sustainable development. • Provide for economic development and protect natural environmental, heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Local Economic and Community Plans (LECPs), including the 'One Waterford LECP 2015-2020'	• The overarching vision for each LECP is: "to promote the well-being and quality of life of citizens and communities	• The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
County Waterford Landscape Character Assessment and Landscape Character Assessments in adjoining counties	Characterises the geographical dimension of the landscape.	• Identifies the quality, value, sensitivity and capacity of the landscape area. • Guides strategies and guidelines for the future development of the landscape.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterford Heritage Plan 2017-2022	Vision: To increase engagement with, and access to, all aspects of heritage in Waterford City and County and promote conservation, best practice, appreciation and enjoyment of our shared heritage.	Mission: To set out a strategic and co-ordinated approach for heritage in recognition of the benefits that heritage delivers; identifying a sense of place for Waterford, learning lessons from our past to plan for the future and added value for the development of Waterford City and County.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterford Noise Action Plan 2019-2023	Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006, Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland.	The main purpose of Noise Action Plans is to: Inform and consult the public about noise exposure, its effects and the measures which may be considered to address noise problems Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects Reduce noise, where possible, and maintain the environmental acoustic quality where it is good	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			framework for environmental protection and management.
The Waterford City and County Council Climate Change Adaptation Strategy 2019-2024	The Strategy is developed around 4 key themes/goals: 1. Critical Buildings & Infrastructure 2. Natural and Cultural Heritage 3. Water Resources & Flood Risk Management 4. Community Services	The Waterford City and County Council Climate Change Adaptation Strategy 2019-2024 seeks to: • Ensure a proper comprehension of the key risks and vulnerabilities of climate change; • Bring forward the implementation of climate resilient actions in a planned and proactive manner; and • Ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of the LA.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Local Authority Renewable Energy Strategy (LARES)	The Strategy sets out the framework for the delivery of sustainable and renewable energies throughout the County.	The LARES outlines the potential for a range of renewable energy resources and developments and acknowledges the significant contribution that they can make to the county in terms of energy security, reduced reliance on traditional fossil fuels, enabling future energy exports, meeting assigned national targets and the transition to a low carbon economy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Southern Regional Waste Management Plan 2015-2021	These plans give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Fáilte Ireland Tourism plans, strategies, including those relating to the Ireland's Ancient East	Fáilte Ireland's work includes preparing various plans and strategies for Ireland's Ancient East and other brands and initiatives. These plans are subject to their own environmental assessment processes and any project arising is required to be consistent with and conform with the provisions of all adopted/approved Statutory Policies, Strategies, Plans and Programmes, including provisions for the protection and management of the environment.	Some of Fáilte Ireland's plans and strategies include various projects relating to land use and infrastructural development, including those relating to development of land or on land and the carrying out of land use activities. Many of these projects exist already while some are not currently in existence. The Statutory Policies, Strategies, Plans and Programmes that provide for different projects undergo a variety of environmental assessments. These assessments ensure that environmental effects are considered, including: those arising from new and intensified uses and activities; and those arising from various sectors such as tourism.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Various existing, planned and emerging projects provided for by the above plans and programmes	These projects have been provided for by higher-level plans and programmes.	These projects will contribute towards the development of the area to which the Plan relates and/or wider area and will contribute towards environmental protection and management.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

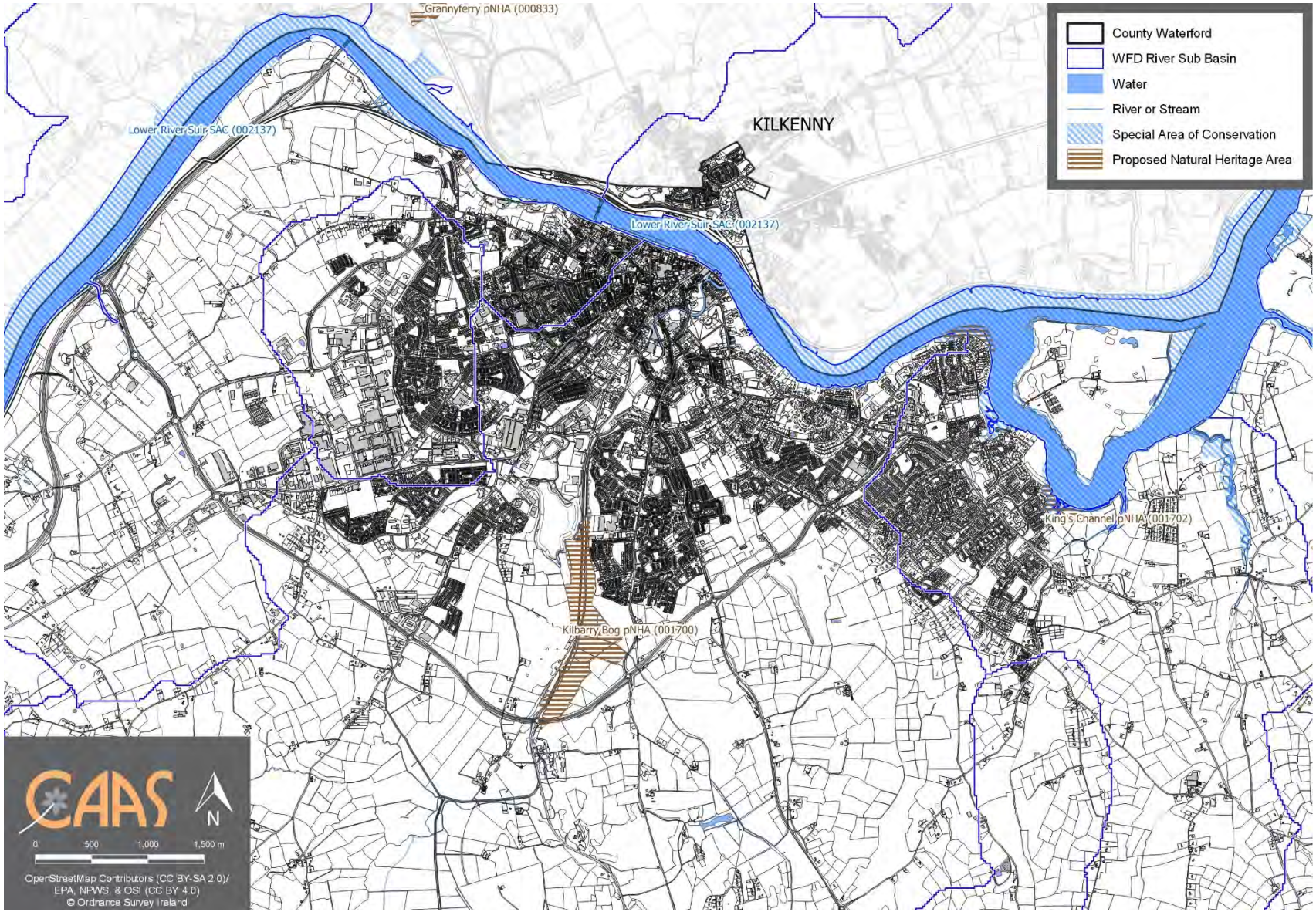
Appendix II Ecological and Geological Designations

SACs (9) and SPAs (6) within County Waterford		
Site Code	**Site Name**	**Sensitive Features**
002123	Ardmore Head SAC	Sensitive features include: vegetated sea cliffs; and dry heath.
002170	Blackwater River (Cork/Waterford) SAC	Sensitive features include: estuaries; tidal mudflats and sandflats; perennial vegetation of stony banks; salicornia mud; Atlantic salt meadows; Mediterranean salt meadows; floating river vegetation; old oak woodlands; alluvial forests; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; Atlantic salmon; otter; and Killarney fern.
001952	Comeragh Mountains SAC	Sensitive features include: oligotrophic waters containing very few minerals; floating river vegetation; wet heath; dry heath; alpine and subalpine heaths; blanket bogs; siliceous scree; calcareous rocky slopes; siliceous rocky slopes; and slender green feather-moss.
002324	Glendine Wood SAC	Sensitive features include: Killarney fern.
000665	Helvick Head SAC	Sensitive features include: vegetated sea cliffs; and dry heath.
002137	Lower River Suir SAC	Sensitive features include: Atlantic salt Meadows; Mediterranean salt meadows; floating river vegetation; hydrophilous tall herb communities; old oak woodlands; alluvial forests; yew woodlands freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; Atlantic salmon; and otter.
000668	Nier Valley Woodlands SAC	Sensitive features include: old oak woodlands.
002162	River Barrow and River Nore SAC	Sensitive features include: estuaries; tidal mudflats and sandflats reefs; salicornia mud; Atlantic salt meadows; Mediterranean salt meadows; floating river vegetation; dry heath; hydrophilous tall herb communities; petrifying springs; old oak woodlands; alluvial forests; desmoulin's whorl snail; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; Atlantic salmon; otter; Killarney fern; Nore freshwater pearl mussel.
000671	Tramore Dunes and Backstrand SAC	Sensitive features include: tidal mudflats and sandflats; annual vegetation of drift lines; perennial vegetation of stony banks; salicornia mud; Atlantic salt meadows; Mediterranean salt meadows; embryonic shifting dunes; marram dunes; and fixed dunes.
004094	Blackwater Callows SPA	Sensitive features include: whooper swan; wigeon; teal; black-tailed godwit; wetland and waterbirds.
004028	Blackwater Estuary SPA	Sensitive features include: wigeon; golden plover; lapwing; dunlin; black-tailed godwit; bar-tailed godwit; curlew; redshank; wetland and waterbirds.
004032	Dungarvan Harbour SPA	Sensitive features include: great crested grebe; light-bellied brent goose; shelduck; red-breasted merganser; oystercatcher; golden plover; grey plover; lapwing; knot; dunlin; black-tailed godwit; bar-tailed godwit; curlew; redshank; turnstone; wetland and waterbirds.
004192	Helvick Head to Ballyquin SPA	Sensitive features include: cormorant; peregrine; herring gull; kittiwake; and chough.
004193	Mid-Waterford Coast SPA	Sensitive features include: cormorant; peregrine; herring gull; and chough.
004027	Tramore Back Strand SPA	Sensitive features include: light-bellied brent goose; golden plover; grey plover; lapwing; dunlin; black-tailed godwit; bar-tailed godwit; curlew; wetland and waterbirds.
SACs (5) and SPAs (4) Sites Within 15 km from County Waterford		
Site Code	**Site Name**	**Sensitive Features**
000077	Ballymacoda (Clonpriest and Pillmore) SAC	Sensitive features include: estuaries; tidal mudflats and sandflats salicornia mud; Atlantic salt meadows; and Mediterranean salt meadows.
000404	Hugginstown Fen SAC	Sensitive features include: alkaline fens.
000646	Galtee Mountains SAC	Sensitive features include: wet heath; dry heath; alpine and subalpine heaths; species-rich nardus grassland; blanket bogs; siliceous scree; calcareous rocky slopes; and siliceous rocky slopes.
000697	Bannow Bay SAC	Sensitive features include: estuaries; tidal mudflats and sandflats; annual vegetation of drift lines; perennial vegetation of stony banks; salicornia mud; Atlantic salt meadows; Mediterranean salt meadows; halophilous scrub; embryonic shifting dunes; marram dunes; and fixed dunes.
000764	Hook Head SAC	Sensitive features include: large shallow inlets and bays; reefs; and vegetated sea cliffs.
004022	Ballycotton Bay SPA	Sensitive features include: teal; ringed plover; golden plover; grey plover; lapwing; black-tailed godwit; bar-tailed godwit; curlew; turnstone; common gull; lesser black-backed gull; wetland and waterbirds.
004023	Ballymacoda Bay SPA	Sensitive features include: wigeon; teal; ringed plover; golden plover; grey plover; lapwing; sanderling; dunlin; black-tailed godwit; bar-tailed godwit; curlew; redshank; turnstone; black-headed gull; common gull; lesser black-backed gull; wetland and waterbird.
004033	Bannow Bay SPA	Sensitive features include: : light-bellied brent goose; shelduck; pintail; oystercatcher; golden plover; grey plover; lapwing; knot; dunlin; black-tailed godwit; bar-tailed godwit; curlew; redshank; wetland and waterbirds.
004118	Keeragh Islands SPA	Sensitive features include: cormorant.

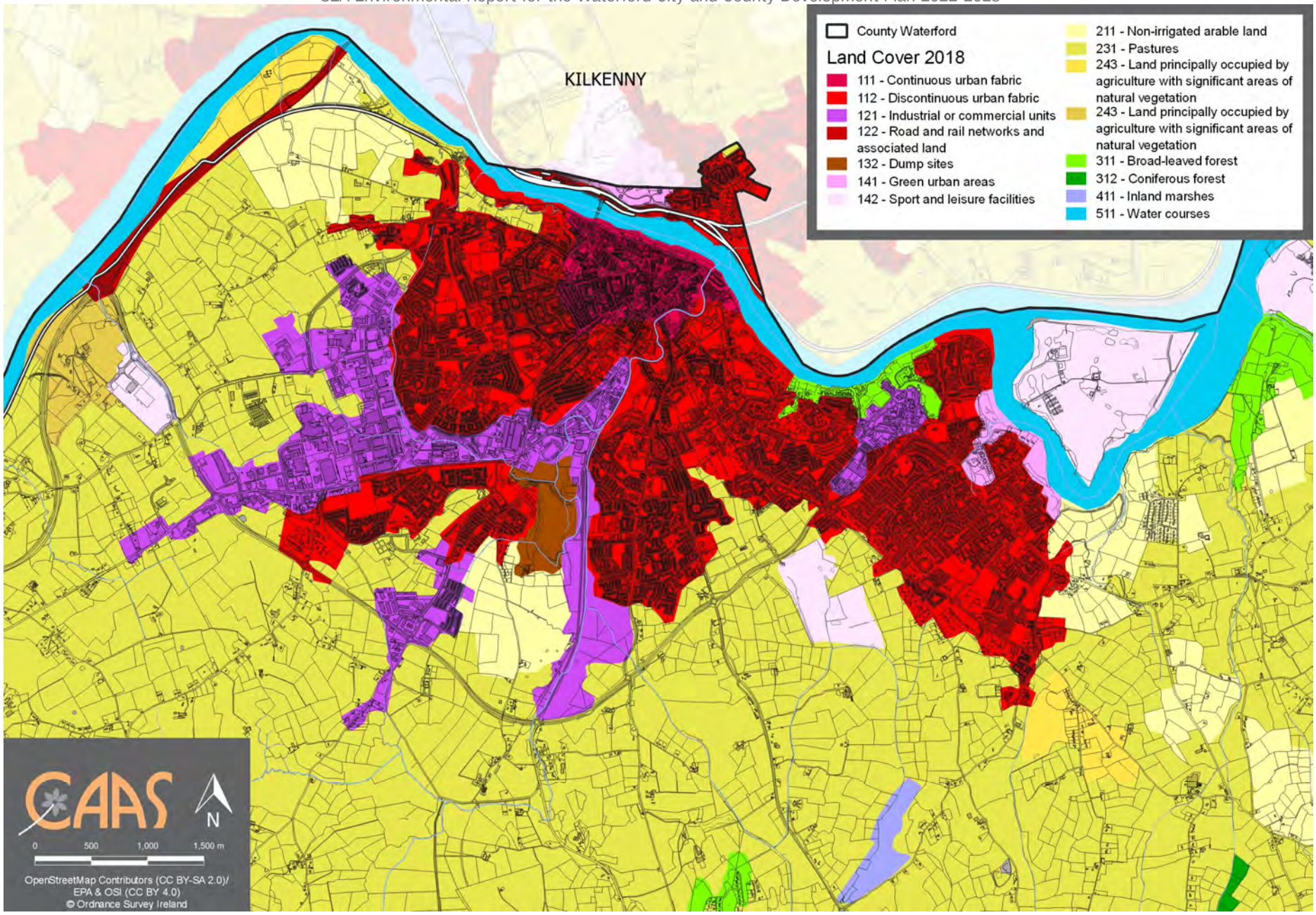
pNHAs (31) within County Waterford			
Site Code	**Site Name**	**Site Code**	**Site Name**
000072	Blackwater River and Estuary pNHA	001691	Ballin Lough (Waterford) pNHA
000073	Blackwater River Callows pNHA	001692	Ballyeelinan Wood pNHA
000399	Lower River Suir (Coolfinn, Portlaw) pNHA	001693	Ballyvoyle Head to Tramore pNHA
000402	Fiddown Island pNHA	001695	Castlecraddock Bog pNHA
000659	Belle Lake pNHA	001697	Fennor Bog pNHA
000660	Carrickavrantry Reservoir pNHA	001698	Glenanna Wood pNHA
000663	Dungarvan Harbour pNHA	001700	Kilbarry Bog pNHA
000664	Dunmore East Cliffs pNHA	001701	Kilsheelin Lake pNHA
000665	Helvick Head pNHA	001702	King's Channel pNHA
000666	Islandtarnsey Fen pNHA	001705	Lissaviron Bog pNHA
000667	Lismore Woods pNHA	001707	Stradbally Woods pNHA
000668	Neir Valley Woodlands pNHA	001708	Toor Wood pNHA
000669	Portlaw Woods pNHA	001933	Glenmore Wood pNHA
000670	Tallow (Disused Church) pNHA	001952	Comeragh Mountains pNHA
000671	Tramore Dunes and Backstrand pNHA	002095	Glencairn pNHA
000787	Waterford Harbour pNHA		

Waterford County Geological Sites (55), including:			
Site code	**Site name**	**Site Code**	**Site Name**
WD001	Ardmore Mine	WD030	Kilmurrin Cove
WD002	Ardoginna	WD031	Knockmahon and Stage Cove
WD003	Ballymacart River	WD033	Stradbally Cove
WD004	Ballynacourty	WD034	Tankardstown Mine
WD005	Ballynahemery Cave	WD035	Croaghaun Hill
WD006	Ballynameelagh Caves	WD036	Drumslig
WD007	Ballynamintra Cave	WD037	Dungarvan Harbour
WD008	Ballynamuck Boreholes	WD038	Dunhill Quarry
WD009	Ballyquin Shore	WD039	Fenor Bog
WD010	Bewley Caves	WD040	Kilgreany Cave
WD011	Blackwater Bend	WD041	Knockalahara Sink
WD012	Bridgequarter Cave	WD042	Knockmealdown Gullies
WD013	Cappagh Quarry	WD043	N25 Road Cuttings
WD014	Carrigmurrish Cave	WD044	Newtown
WD015	Clonea Strand	WD045	Oonagaloor and Brother's Cave
WD016	Comeragh Mountains	WD046	Quillia
WD017	Comeragh Volcanics	WD047	Raheen Shore
WD025	Ballydowane Bay	WD048	Rathmoylan Cove
WD026	Bunmahon Head	WD049	Ross Slate Quarries
WD027	Dunabrattin Head	WD050	Shandon Railway Cutting Cave
WD028	Garrarus Strand	WD051	Sluggera Crossroads
WD029	Kilfarrasy Strand	WD052	St Declans Stone
WD055	Whiting Bay and Goat Island	WD053	Tramore
WD054	Tramore Burrow		

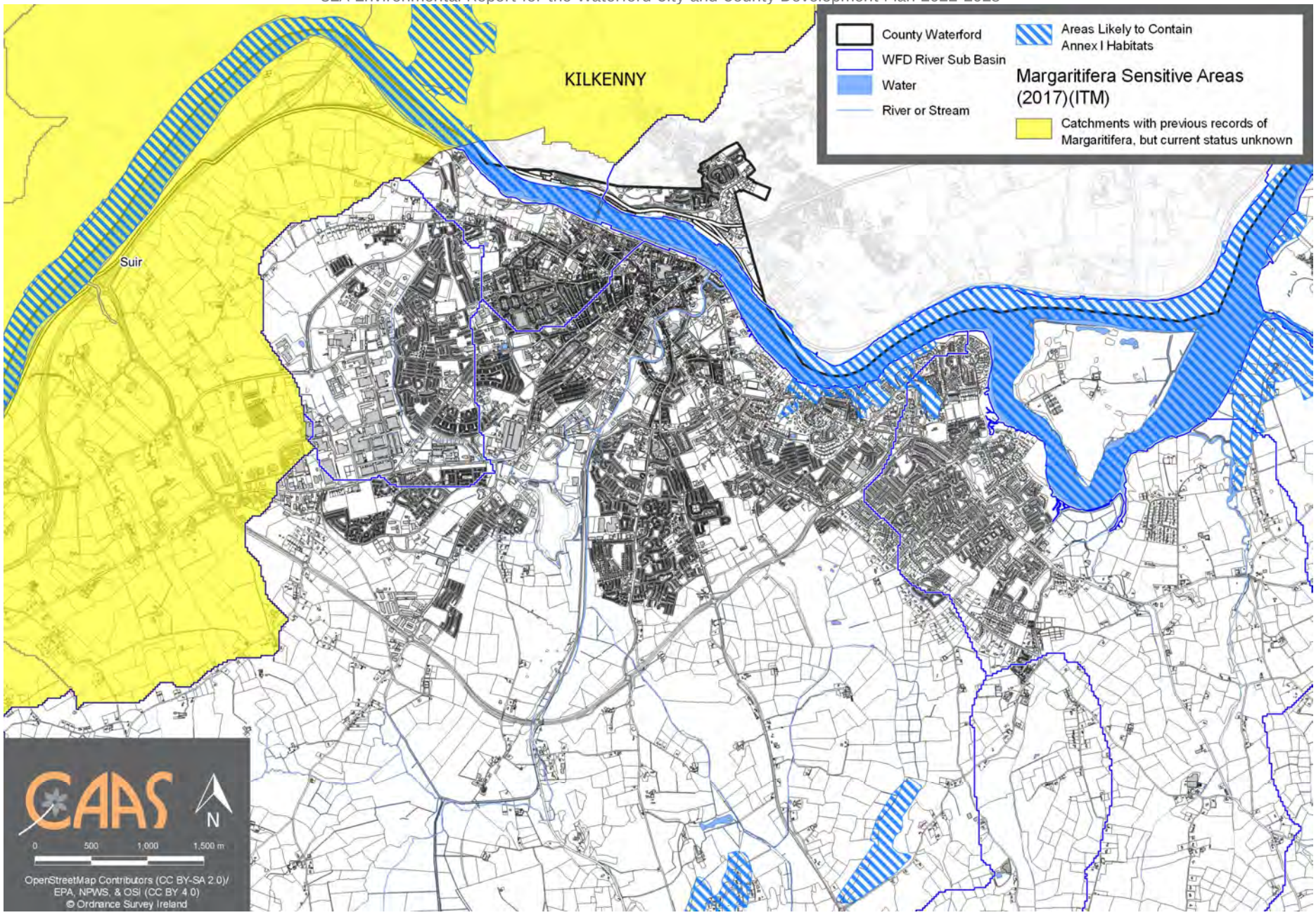
Appendix III Waterford City Maps



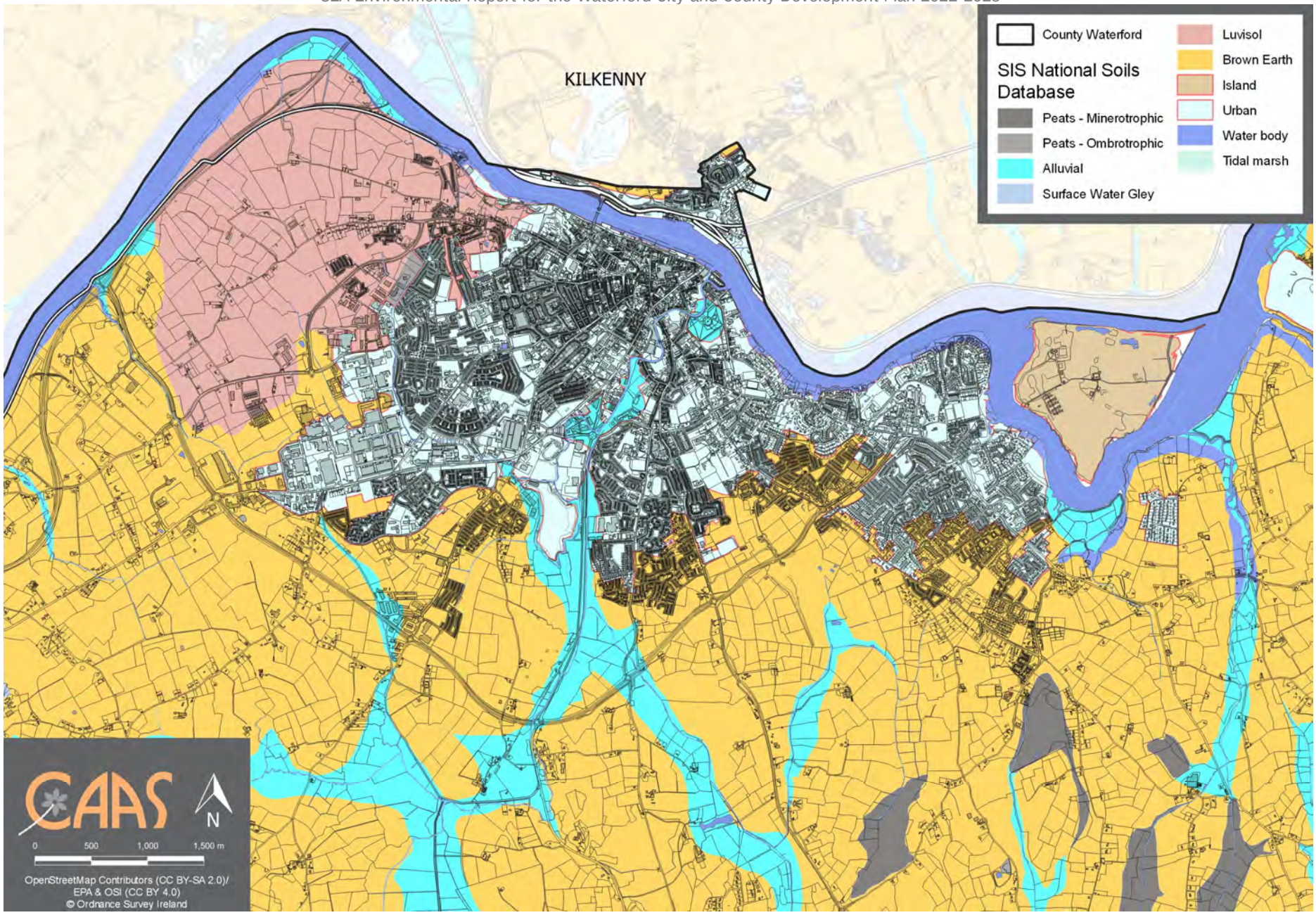
Appendix III Map 1: Special Area of Conservation and Proposed Natural Heritage Area within and adjacent to Waterford City



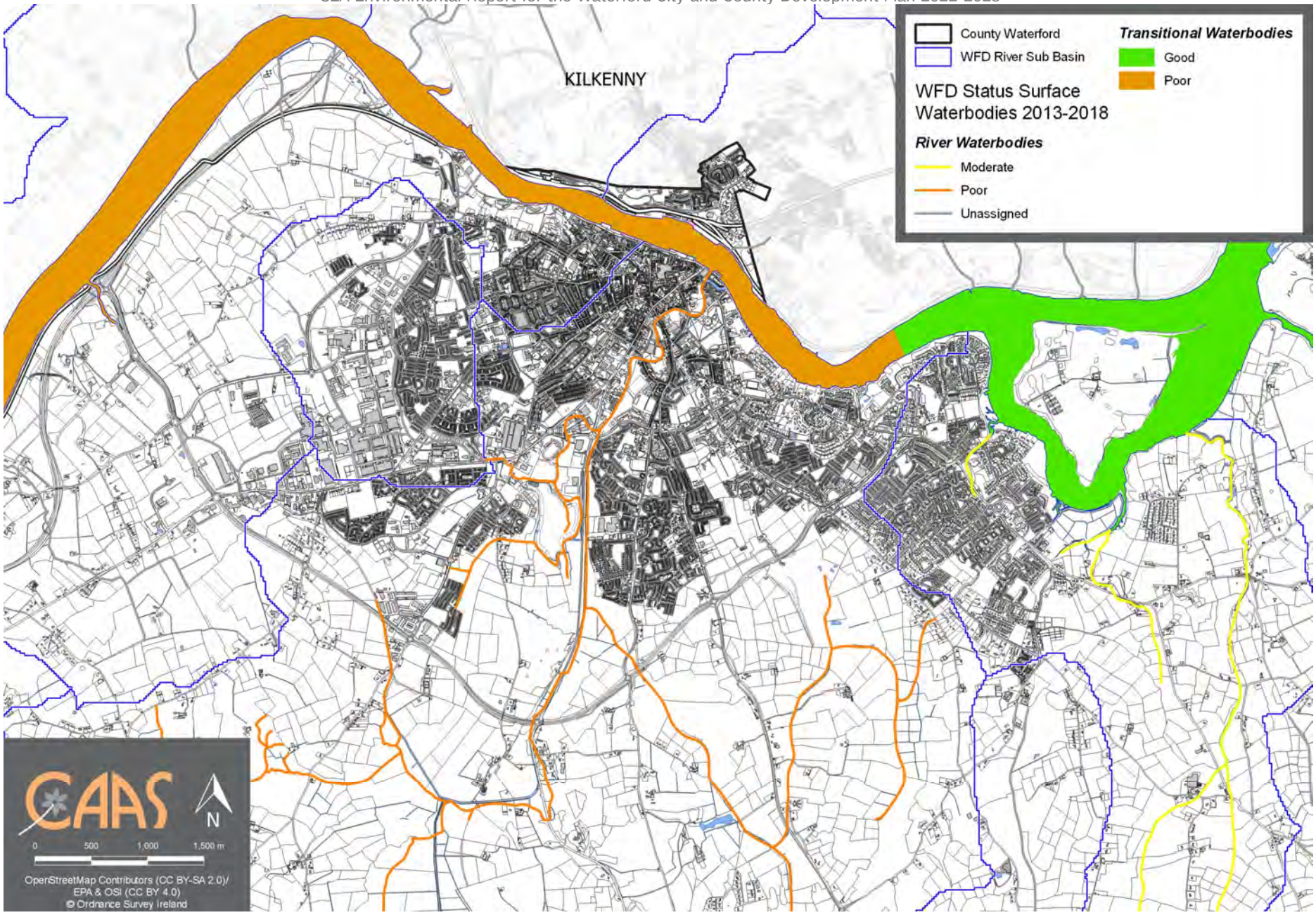
Appendix III Map 2: CORINE Land Cover 2018 within and adjacent to Waterford City



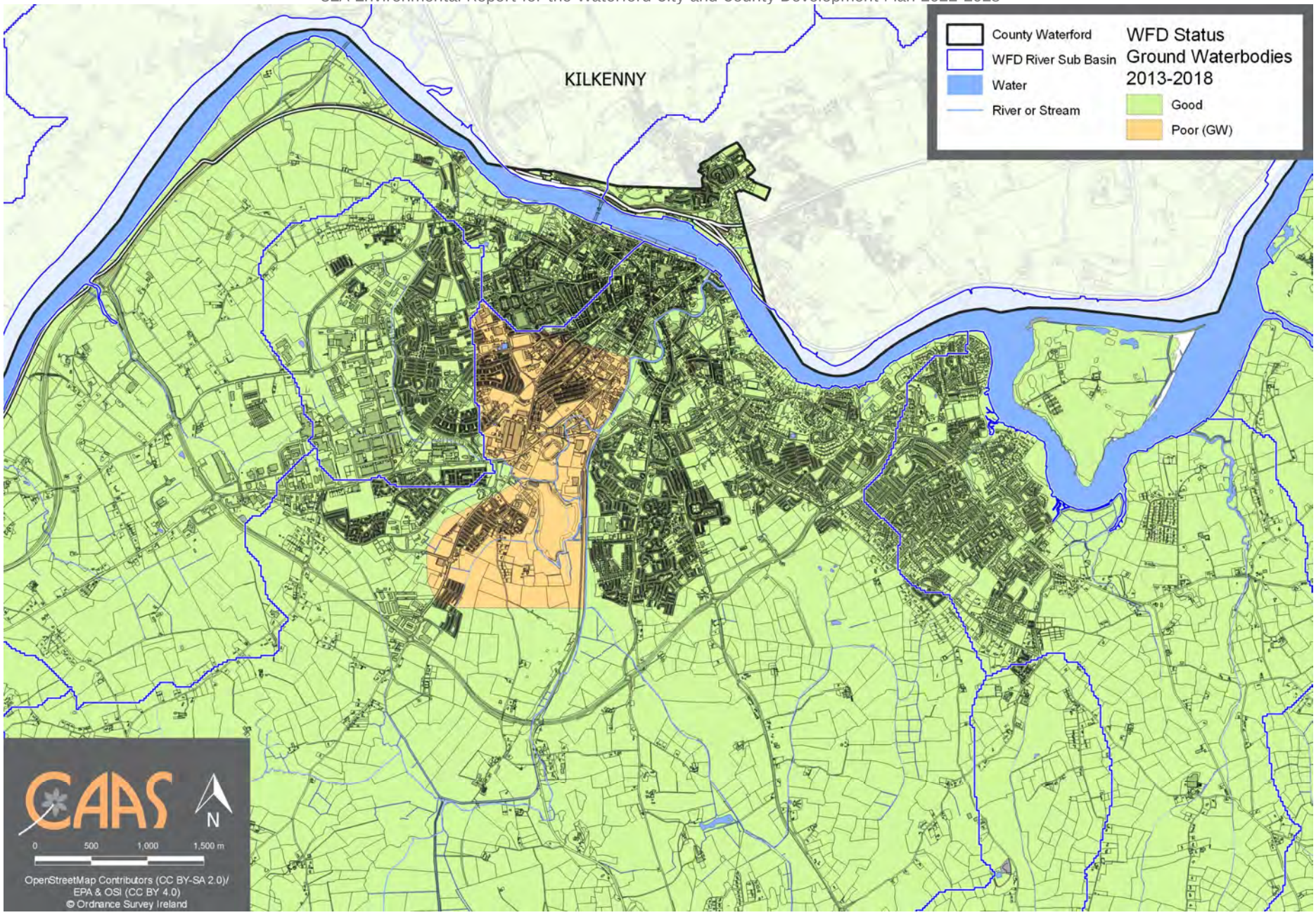
Appendix III Map 3: Areas with the potential for Annex I habitats and Margaritifera Sensitive Areas within and adjacent to Waterford City



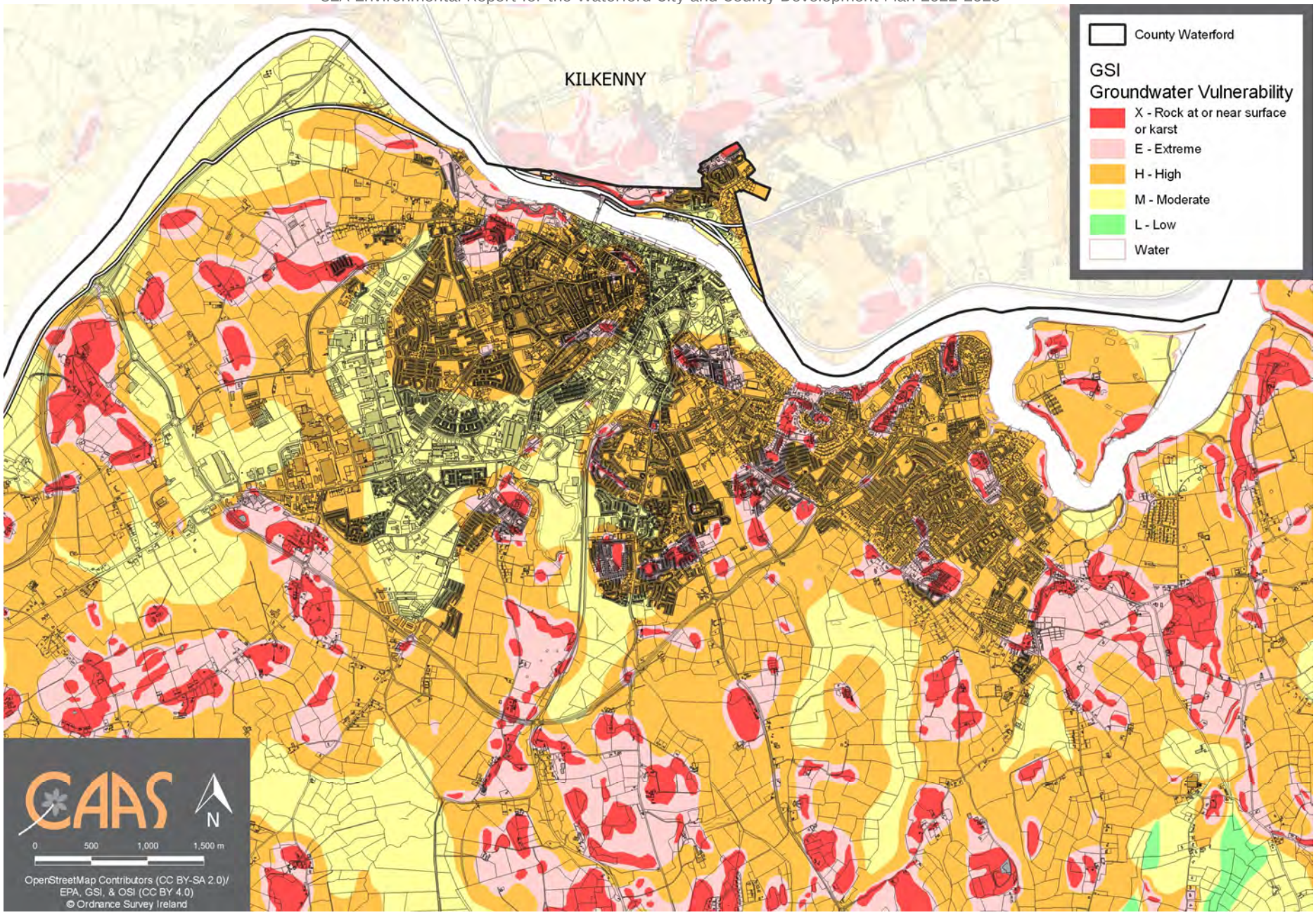
Appendix III Map 4: Soil Type within and adjacent to Waterford City



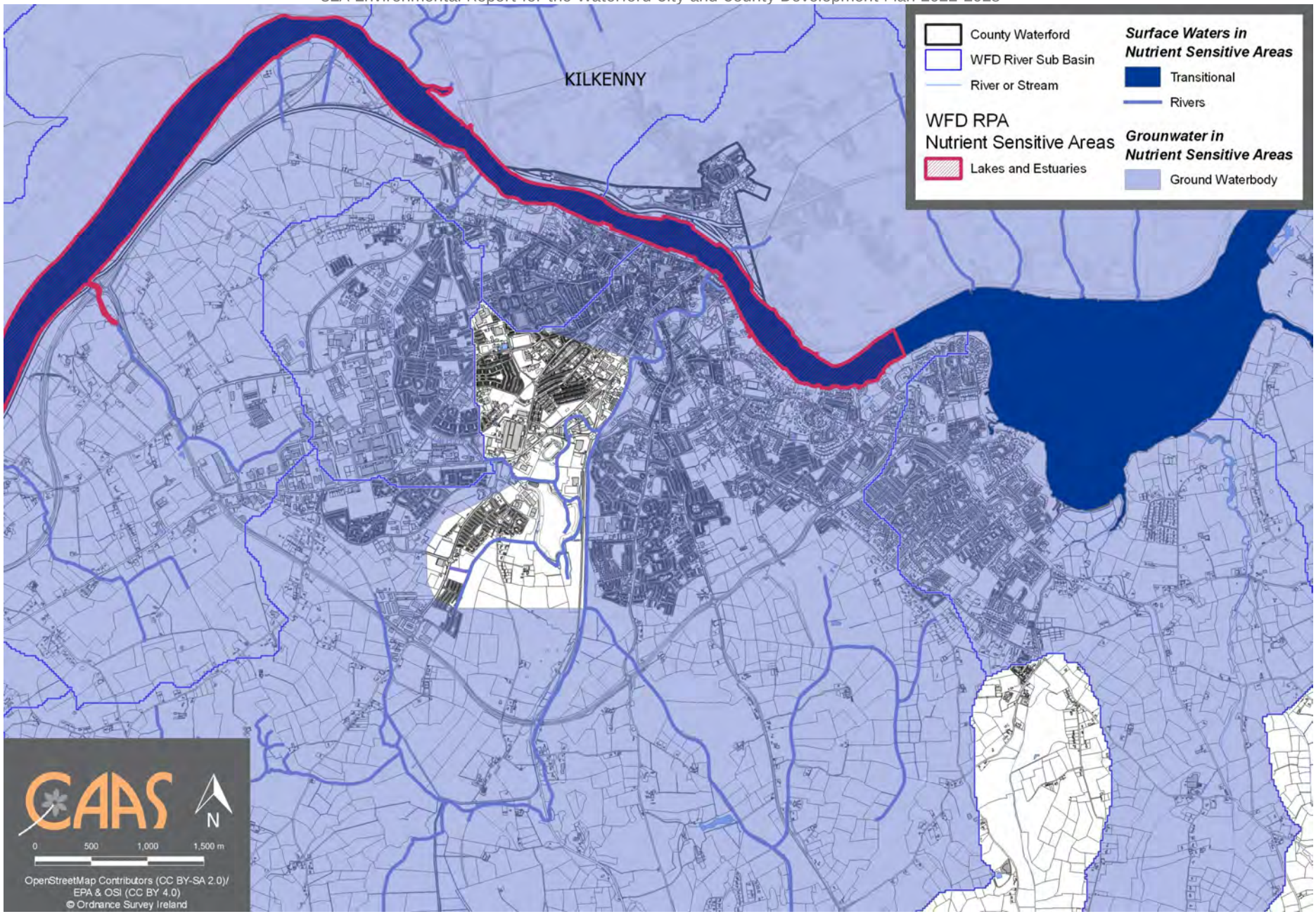
Appendix III Map 5: WFD Surface Water Status (2013-2018) within and adjacent to Waterford City



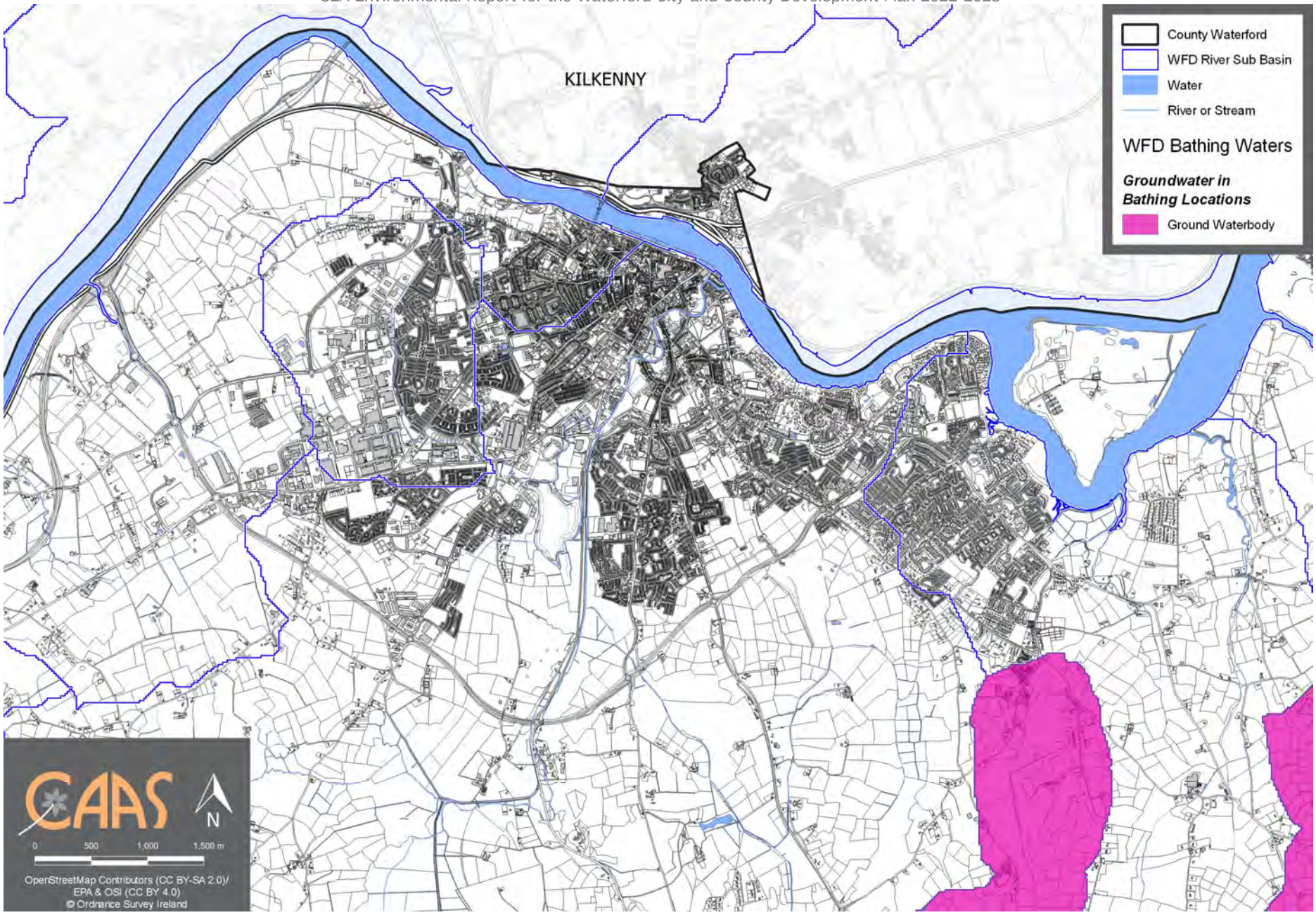
Appendix III Map 6: WFD Groundwater Status (2013-2018) within and adjacent to Waterford City



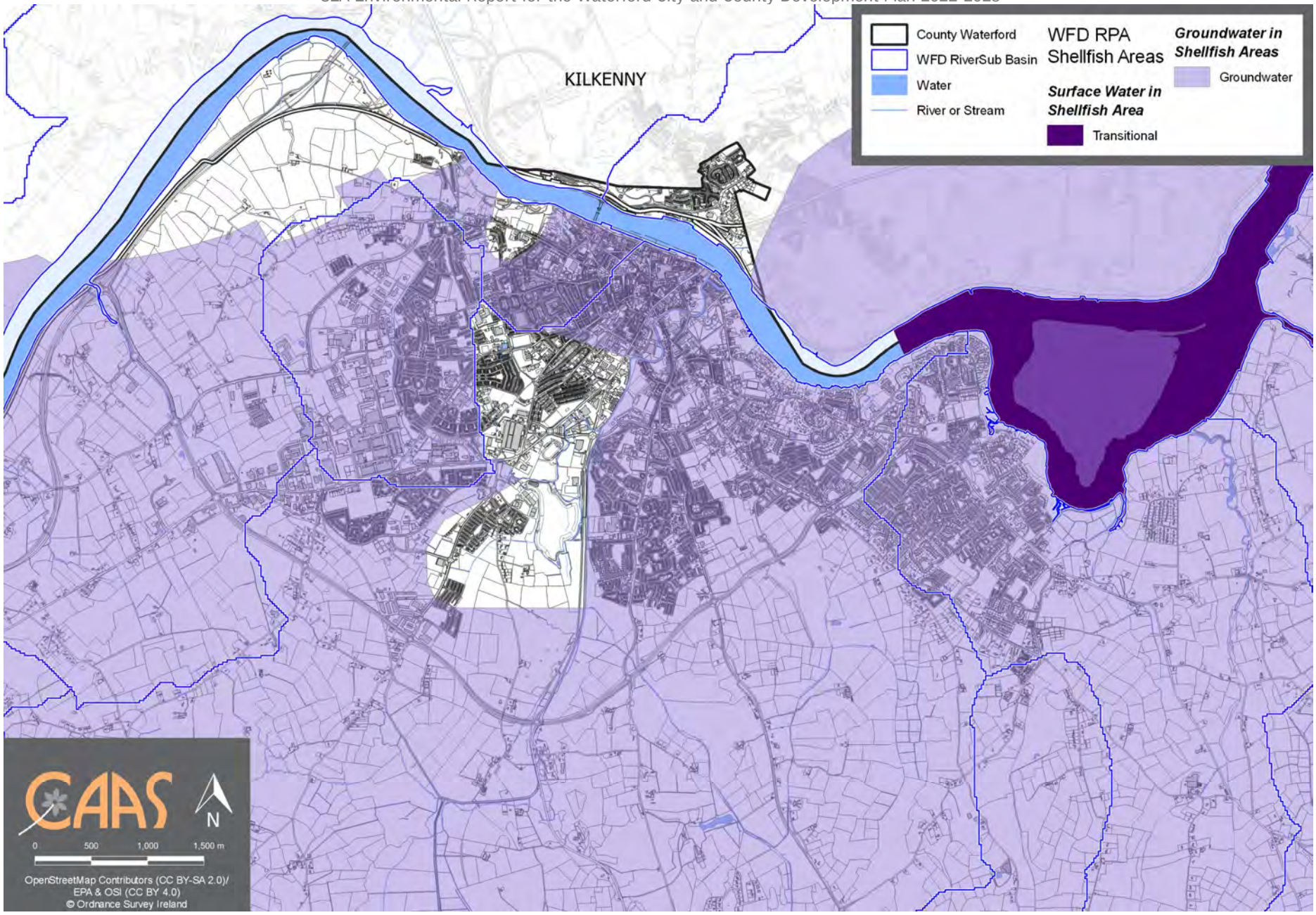
Appendix III Map 7: Groundwater Vulnerability within and adjacent to Waterford City



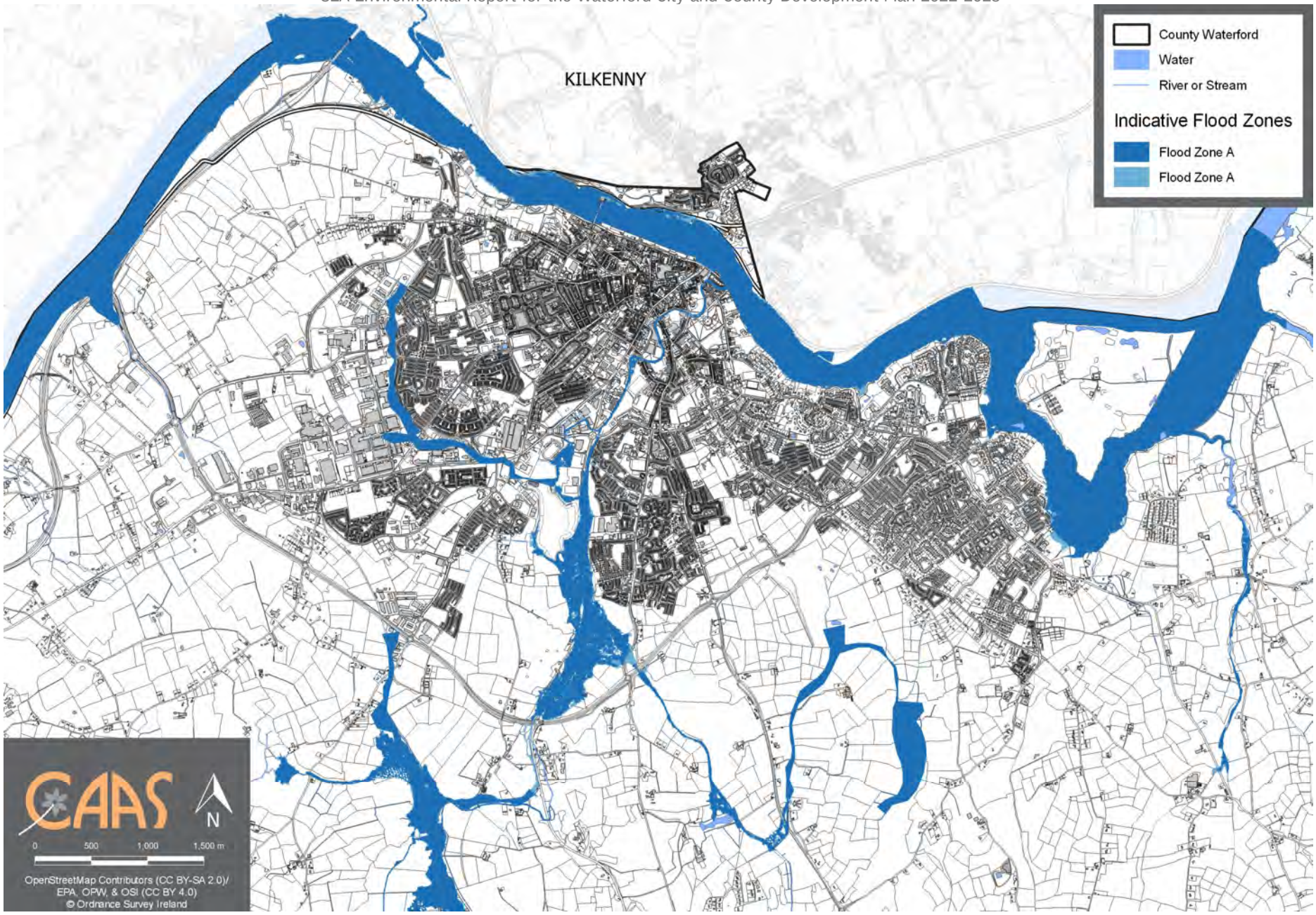
Appendix III Map 8: WFD RPA Nutrient Sensitive Areas within and adjacent to Waterford City



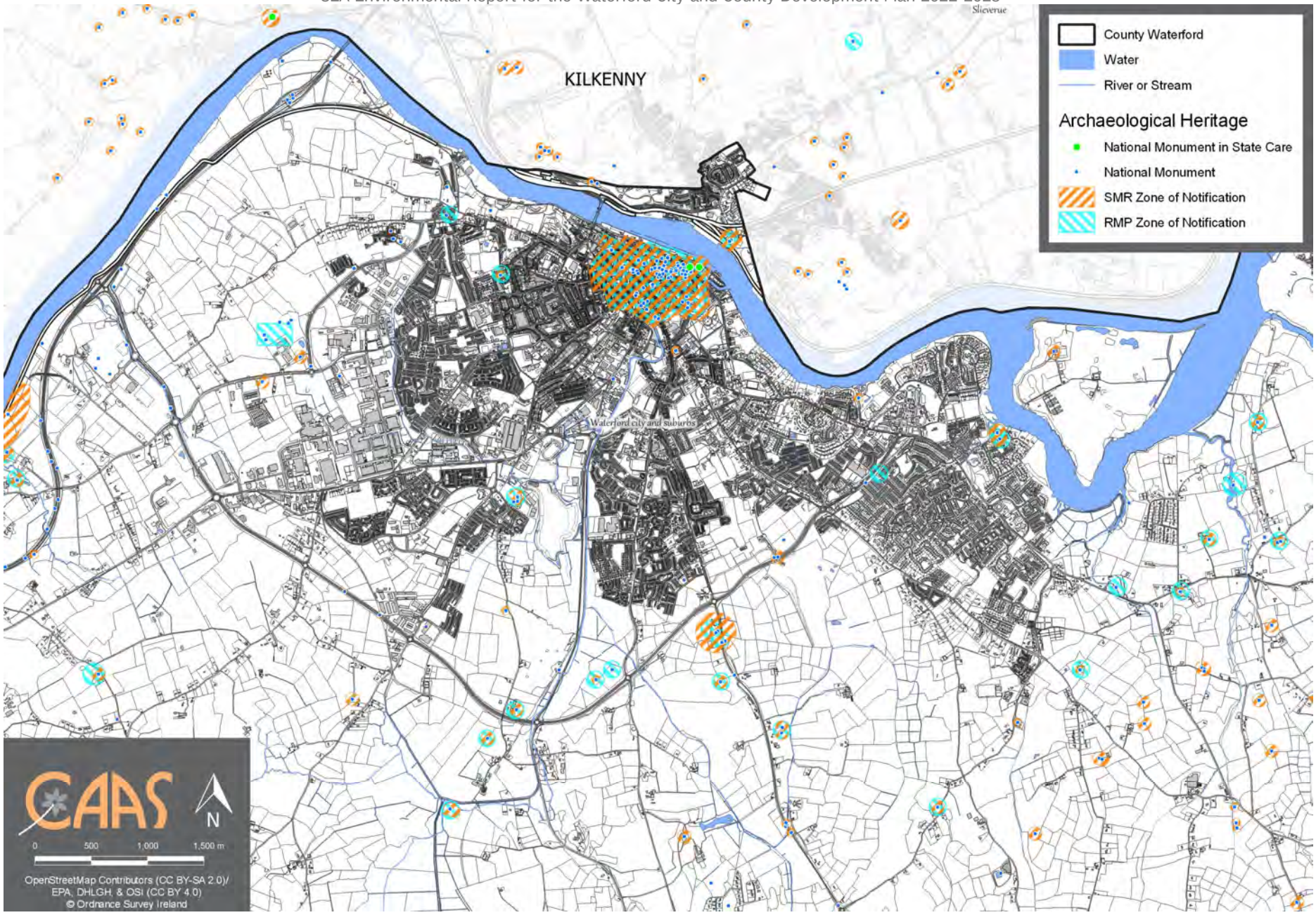
Appendix III Map 9: WFD RPA Bathing Waters within and adjacent to Waterford City



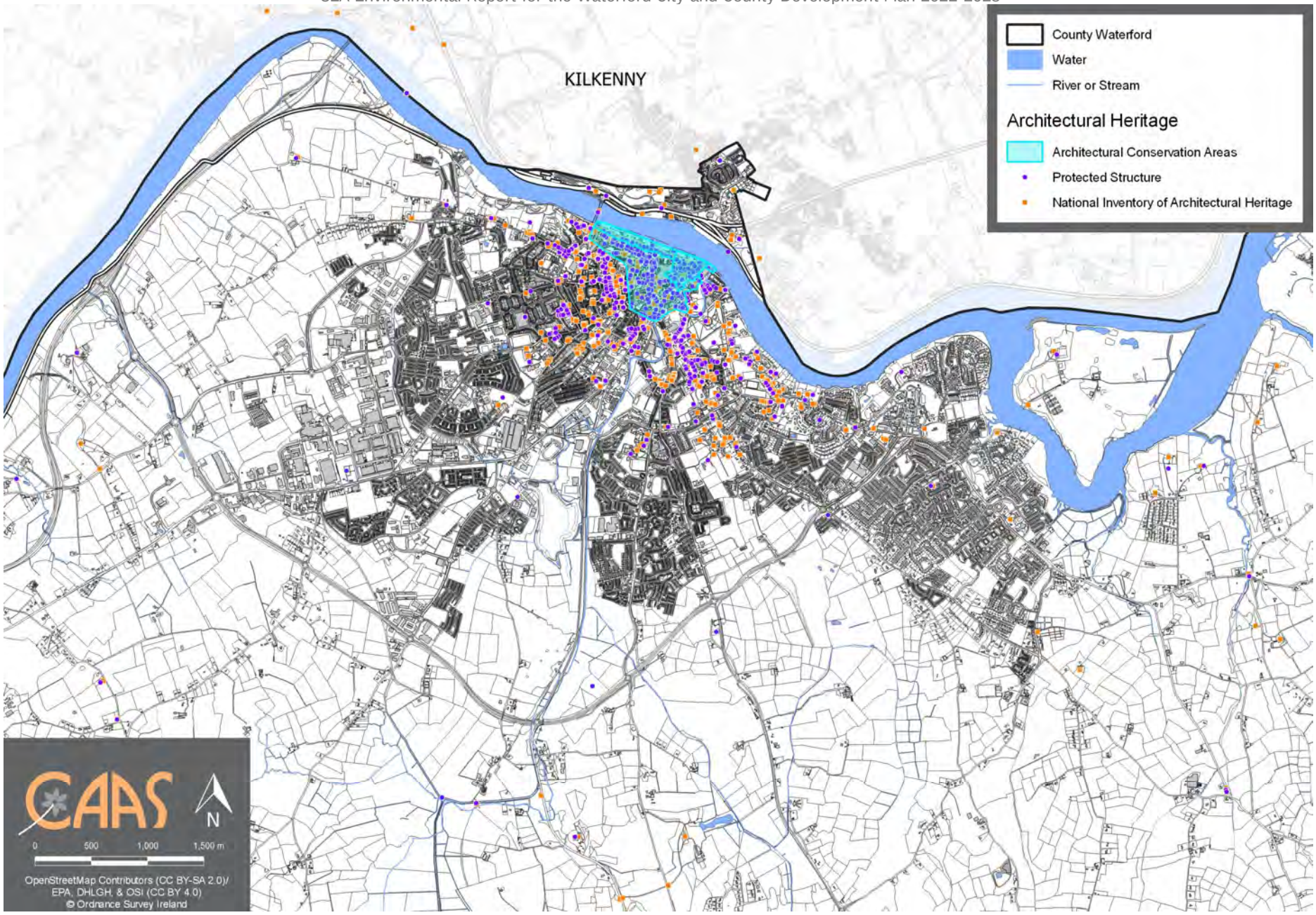
Appendix III Map 10: WFD RPA Shellfish Areas within and adjacent to Waterford City



Appendix III Map 11: Indicative Flood Zones from the SFRA within and adjacent to Waterford City



Appendix III Map 12: Archaeological Heritage within and adjacent to Waterford City



Appendix III Map 13: Architectural Heritage within and adjacent to Waterford

Appendix 19c
SEA Statement

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

SEA STATEMENT

FOR THE

WATERFORD CITY AND COUNTY DEVELOPMENT PLAN 2022-2028

for: **Waterford City and County Council**

City Hall

The Mall

Waterford City

by: **CAAS Ltd.**

1st Floor

24-26 Ormond Quay Upper

Dublin 7

JULY 2022

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Section 1 Introduction

1.1 Introduction and Legislative Context

This is the Strategic Environmental Assessment (SEA) Statement for the Waterford City and County Development Plan 2022-2028.

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and the Planning and Development (Strategic Environmental Assessment) Regulations 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011.

1.2 Content of the SEA Statement

Where SEA is undertaken, the Regulations require that a Statement is made available to the public and the competent environmental authorities after the making of the Plan.

This Statement is referred to as an SEA Statement.

The SEA Statement is required to include information summarising:

a) how environmental considerations have been integrated into the Plan;
b) how the following have been taken into account during the preparation of the Plan:
   - the environmental report,
   - submissions and observations made to the planning authority on the Draft Plan and Environmental Report, and
   - any transboundary consultations (not required for this SEA).
c) the reasons for choosing the Plan in the light of the other reasonable alternatives dealt with; and
d) the measures decided upon to monitor the significant environmental effects of implementing the Plan.

1.3 Implications of SEA for the Plan

SEA has been undertaken on the Plan and the findings of the SEA are expressed in an Environmental Report, the first published version of which accompanied the Draft Plan on public display. The Environmental Report was updated in order to take account of changes to the original Draft Plan that were made on foot of submissions and recommendations in the submissions.

Waterford City and County Council has been provided with the findings of SEA output during their consideration of the Plan and before the Plan was adopted.

Section 2 How Environmental Considerations were integrated into the Plan

2.1 Overview

Environmental considerations were presented to the Council for its consideration through:

1. Consultations;
2. Communication of environmental sensitivities throughout the SEA process;
3. Appropriate Assessment;
4. Strategic Flood Risk Assessment;
5. Consideration of alternatives;
6. Integration of environmental considerations; and
7. Integration of individual SEA and AA provisions into the Plan.

All parts of the Plan-preparation process were informed by the SEA, AA and SFRA processes - this includes the preparation of the Chief Executive's Draft Plan, Members' Amendments to that Plan in advance of public display, Proposed Material Alterations and Further Modifications. The mitigation integrated into the final, adopted Plan includes that identified in Section 9 of this report. There were no Material Alterations to the Draft Plan, modified or otherwise, that were advised against by the SEA and adopted as part of the final Plan.

2.2 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects.

However, a number of alterations were adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan, including those which are identified on Table 2.1 and were advised against by the Plan-preparation/SEA process. Also included on Table 2.1 is advice that was provided by the SEA for consideration in advance of adoption of the Plan.

Table 2.1 Alterations Advised Against but Adopted (including:)

Material Alterations No's.	Commentary provided in advance of Plan Adoption	Mitigation Identified	Recommendation provided in advance of Plan Adoption
205, 211, 225, 284 and 305	Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. These alterations would not be consistent with established population targets and/or the proper planning and sustainable development of the County. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, biodiversity, air and climatic factors and material assets. For alterations relating to zoning, much of the zoning proposed is considered to be premature in the context of current population targets. Potentially significant adverse unnecessary effects, would be likely to include: • Effects on non-designated habitats and species • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces • Increased loadings on water bodies • Conflict with efforts to maximise sustainable compact growth and sustainable mobility • Occurrence of adverse visual impacts Where such alterations are further from the centre of settlements, potentially significant unnecessary adverse effects would be likely to include: • Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of settlements (At An Rinn, in particular, the Council have identified major network capacity issues and that pump station and network upgrades are required to deal with current loading) • Adverse impacts upon the economic viability of providing for public assets and infrastructure • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives • Conflicts between transport emissions, including those from cars, and air quality • Conflicts between increased frequency of noise emissions and protection of sensitive receptors • Potential effects on human health as a result of potential interactions with environmental vectors	• Taking into account higher-level planning objectives, these alterations are not justified and it would not provide the most evidence-based framework for development. • Protect the environment and contribute towards sustainable development.	Do not adopt as part of Draft Plan

2.3 Consultations

As environmental authorities identified under the Planning and Development (SEA) Regulations, as amended, the following authorities were sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to Waterford City and County Council[1]: Department of Agriculture, Food and the Marine; Department of Culture, Heritage, and the Gaeltacht; Department of Communications, Climate Action and Environment; Department of Housing, Planning and Local Government; Environmental Protection Agency; Cork County Council; Tipperary County Council; Kilkenny County Council; and Wexford County Council.

Detail on submissions made on foot of the SEA scoping notice is provided under Section 3.2.

Detail is also provided on submissions that were made on the Draft Plan and/or the SEA Environmental Report while they were on public display (see Section 3).

2.4 Communication of environmental sensitivities throughout the SEA process

Environmental considerations were integrated into the Plan before it was placed on public display. Individual sensitivities that were considered by the Planning Team preparing the Plan included the following:

- European Sites (Special Areas of Conservation and Special Protection Areas);
- Other Ecological Designations;
- Status of Surface and Ground Waters;
- Various entries to the Water Framework Directive's Register of Protected Areas;
- Groundwater Vulnerability;
- Water Services Capacity, Performance and Demand;
- Cultural heritage (archaeological and architectural) sensitivities; and
- Landscape Designations.

A number of these sensitivities are mapped on Figures 2.1 to 2.3.

Overlay mapping of environmental sensitivities was also prepared and a number of the environmental sensitivities described above were weighted and mapped overlapping each other. Figure 2.4 provides the overlay mapping of Environmental Sensitivities that was prepared. Environmental sensitivities are indicated by colours which range from higher to lower sensitivity.

2.5 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA have been undertaken alongside the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The conclusion of the AA is that the Plan will not affect the integrity of the European Sites, alone or in combination with other plans or projects.[2]

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed the SEA.

2.6 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. Recommendations from the SFRA have been integrated into the Plan.

[1] The names of some of the authorities have changed since notification was provided as a result of changes in Ministerial responsibilities across Departments.

[2] Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

2.7 Consideration of Alternatives

Consideration of the environmental effects arising from a variety of different alternatives for the Plan (see Section 4) has contributed towards the protection and management of the environment within the Plan.

2.8 Integration of environmental considerations into Zoning of the Plan

Environmental considerations were integrated into the Plan's zoning through an interdisciplinary approach.

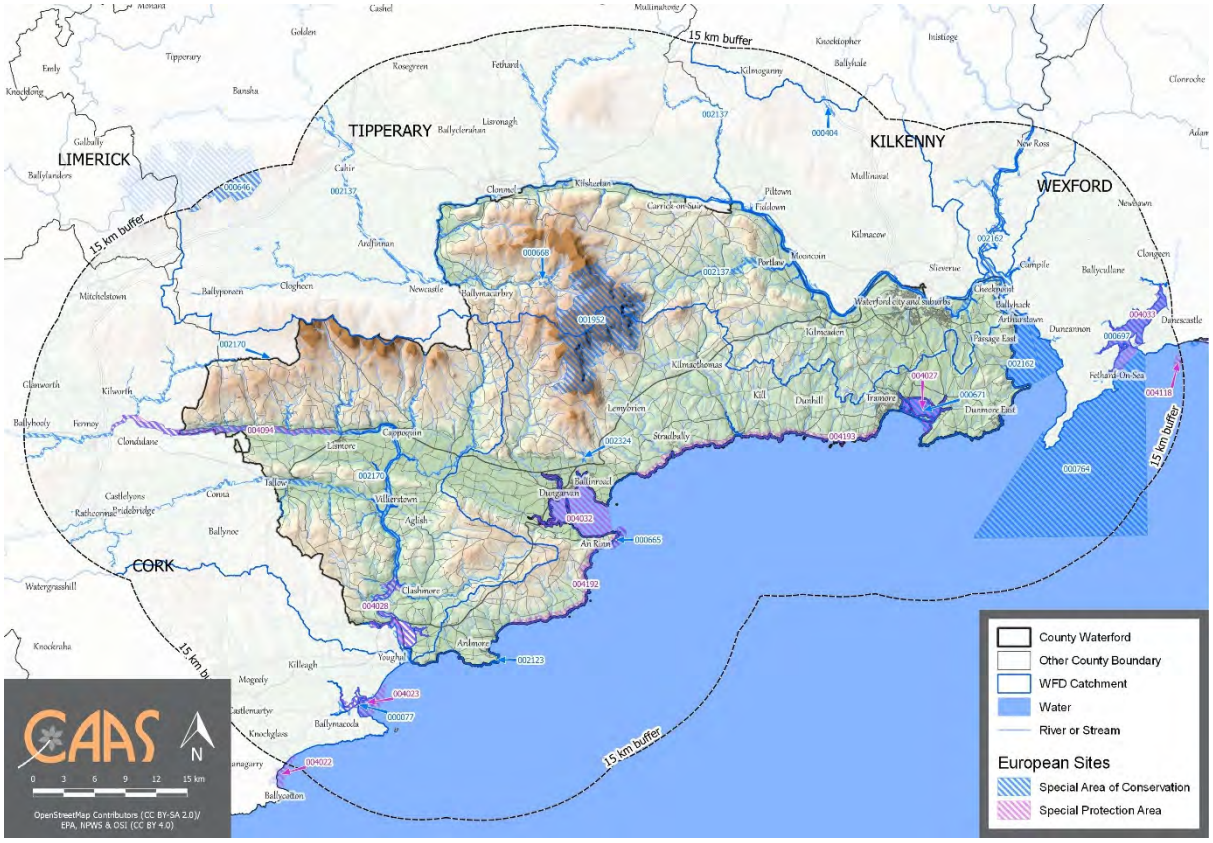
Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Southern RSES.

The detailed Plan preparation process undertaken by the Planning Department combined with specialist seeks to facilitate zoning that will help to avoids inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity. Various provisions have been integrated into the Plan that provide for flood risk management and ecological protection and management at project level.

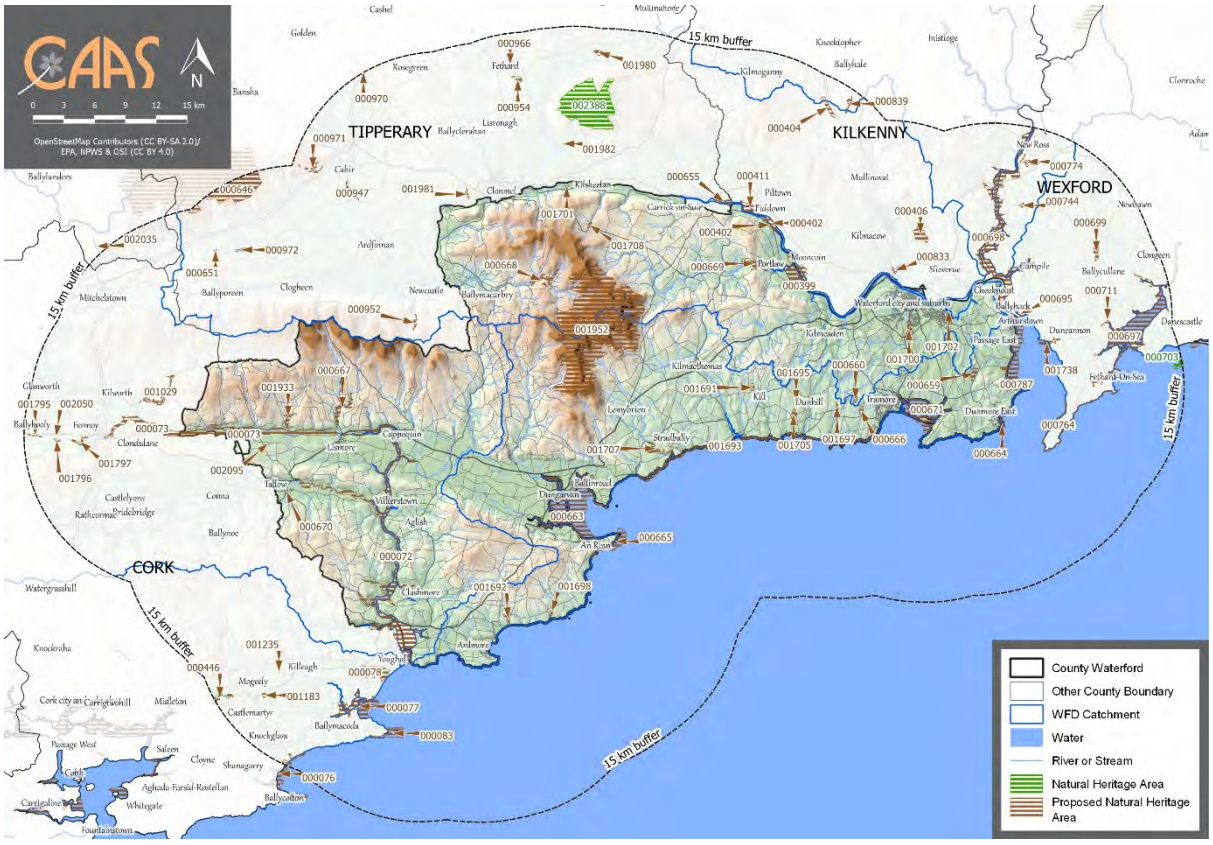
Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

2.9 Integration of individual SEA, AA and SFRA provisions into the text of the Plan

Table 2.2 links key mitigation measure(s) - which have been integrated into the Plan - to the potential significant adverse effects of implementing the Plan, if unmitigated. The integration of these measures into the Plan occurred over a number of iterations and was informed by, inter alia, various communications through the SEA, AA and SFRA processes. The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

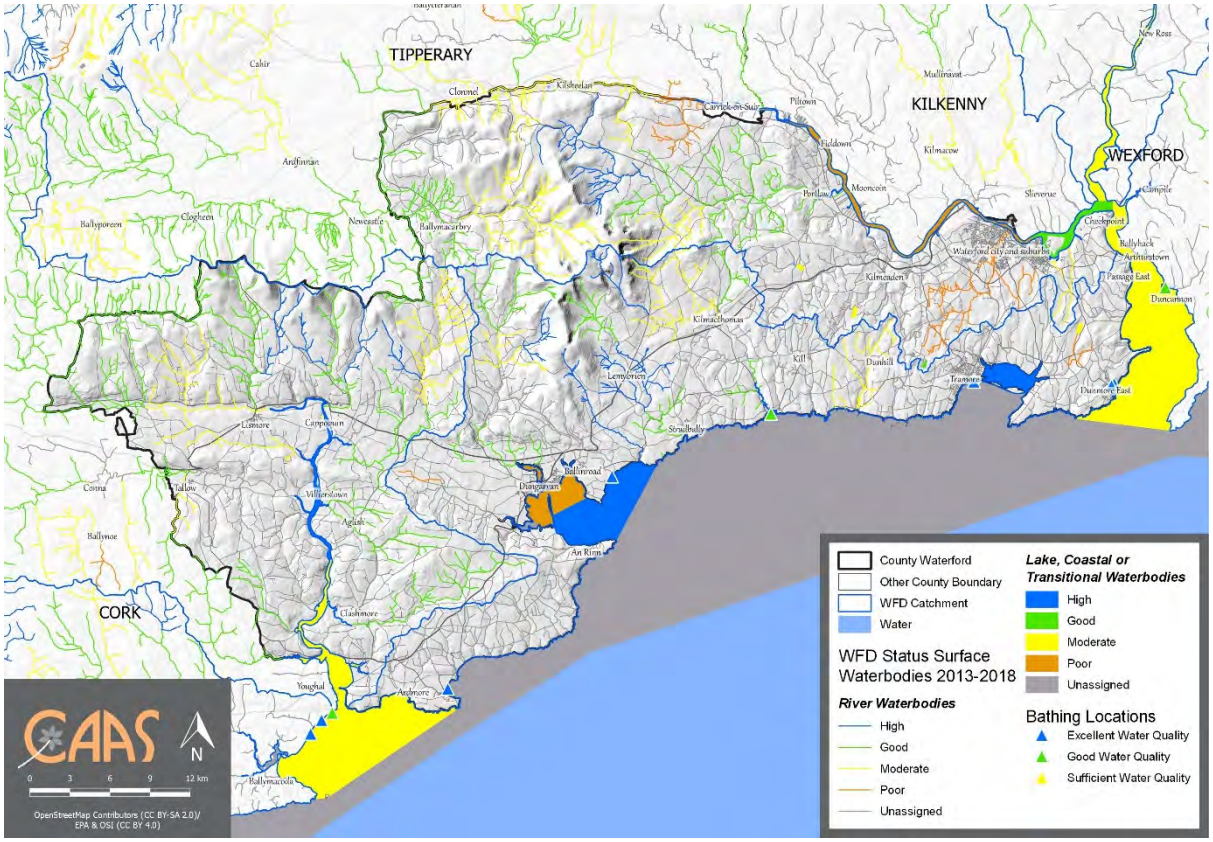


European Sites within and adjacent to the Plan area

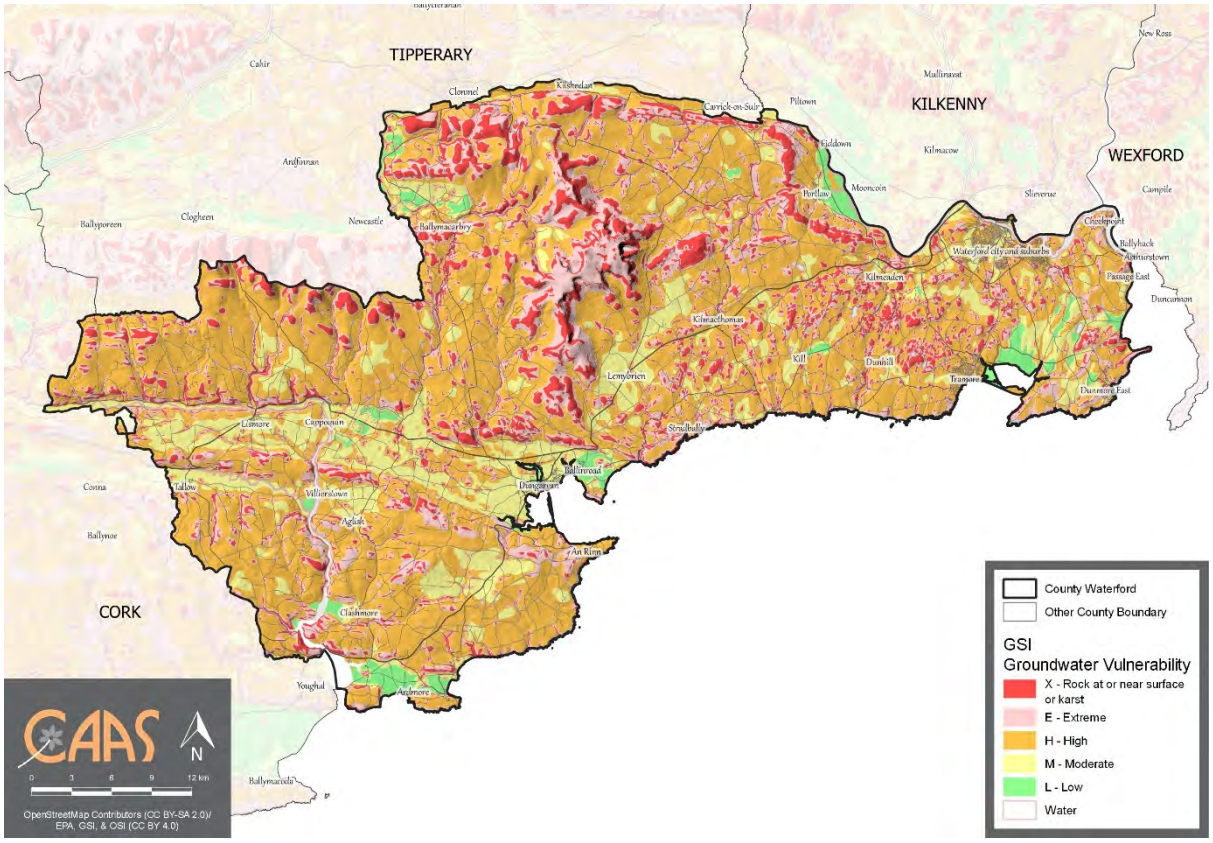


Other Ecological Designations within and adjacent to the Plan area

Figure 2.1 Selection of Individual Environmental Sensitivities taken into account (1 of 3)

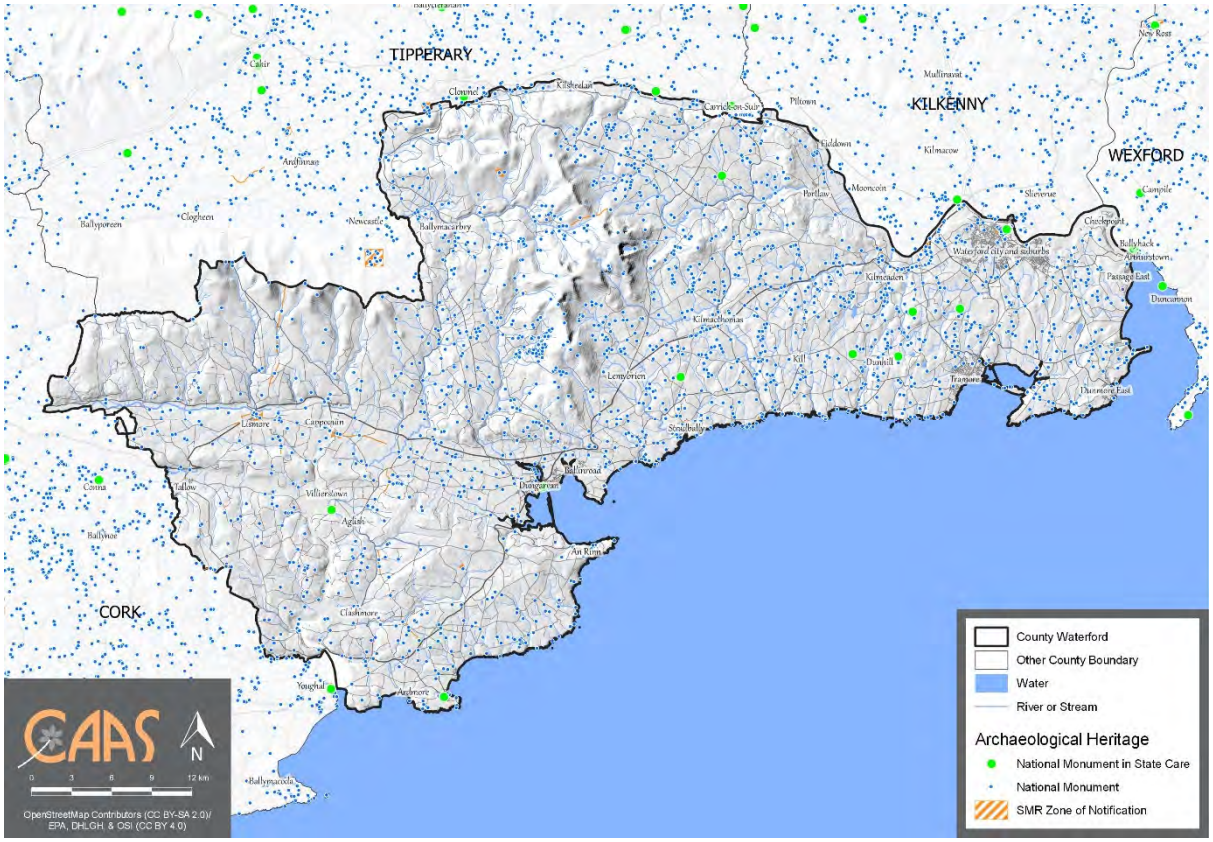


Surface Water Status

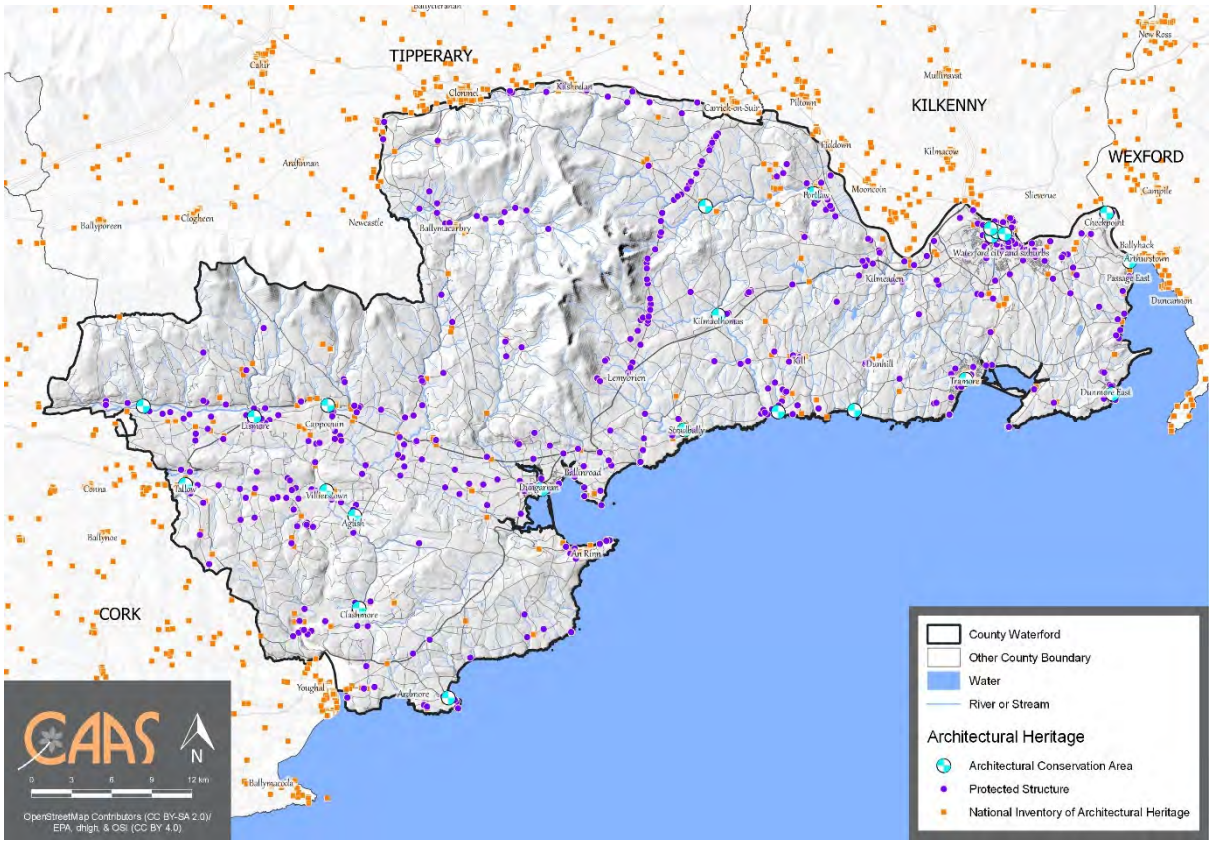


Groundwater Vulnerability

Figure 2.2 Selection of Individual Environmental Sensitivities taken into account (2 of 3)



Archaeological Designations



Architectural Designations

Figure 2.3 Selection of Individual Environmental Sensitivities taken into account (3 of 3)

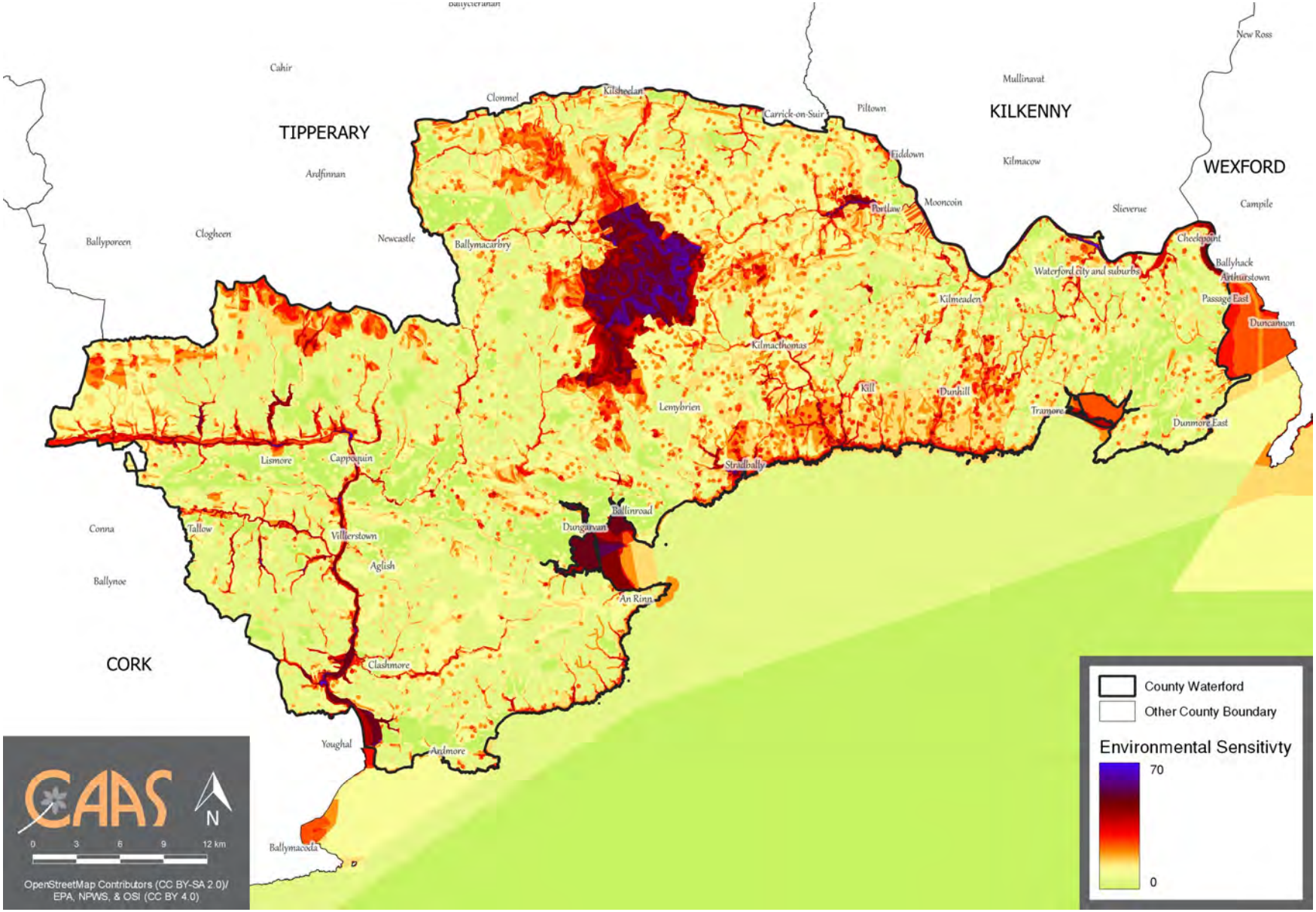


Figure 2.4 Overlay of Environmental Sensitivities

Table 2.2 Integration of Environmental Considerations

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
Various – see below	Various – see below	**Core Strategy Strategic Aims** 4. To require, where appropriate, all plans and projects to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. Protect the integrity all Natura 2000 sites, (p) NHA's and locally important Biodiversity Sites in Waterford. 8. Implement the Waterford City and County Council Climate Adaptation Strategy 2019 (as amended) and promote a climate resilient pattern of development and land uses which assists in achieving national climate change mitigation and adaption targets. 11. To enhance the sense of place throughout settlements in Waterford and deliver 10 minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning. **Core Strategy Policy Objectives** CS 06 We will require, where appropriate, all plans and projects within Waterford to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive. **Waterford City and MASP Policy Objectives** W City 26 We will ensure that the growth of the city takes place in an infrastructure led manner that is Transport-Orientated and sustainable in terms of integrated land use and transportation planning and which reduces congestion, air pollution and enhances the quality of the urban environment… UTL 21 Construction and Environmental Management Plan Construction Environment Management Plans shall be prepared in advance of the construction of relevant projects and implemented throughout. Such plans shall incorporate relevant mitigation measures which have been integrated into the Plan and any lower tier Environmental Impact Statement or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed development, including: a. location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse; b. location of areas for construction site offices and staff facilities; c. details of site security fencing and hoardings; d. details of on-site car parking facilities for site workers during the course of construction; e. details of the timing and routing of construction traffic to and from the construction site and associated directional signage; f. measures to obviate queuing of construction traffic on the adjoining road network; g. measures to prevent the spillage or deposit of clay, rubble or other debris; h. alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works; i. details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels; j. containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained (such bunds shall be roofed to exclude rainwater); k. disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, including compliance with 'Best Practice Guidelines for the preparation of Resource Management Plans for Construction & Demolition Waste Projects' EPA: 2021, (or any final updates thereof); l. a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains; m. details of a water quality monitoring and sampling plan; n. if peat is encountered - a peat storage, handling and reinstatement management plan; o. measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed); p. appointment of an ecological clerk of works at site investigation, preparation and construction phases; and q. details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity, including bats. **Corridor and Route Selection Process** New roads and other transport infrastructure projects (including greenways, blueways and cycleways) referred to by this Plan that are not already provided for by plans/ programmes other than the City and County Development Plan or are not already permitted, are subject to the undertaking of feasibility assessment, taking into account planning need, environmental sensitivities as identified in the SEA Environmental Report and the objectives of the Plan relating to sustainable mobility. Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages: Stage 1 – Route Corridor Identification, Evaluation and Selection; and Stage 2 – Route Identification, Evaluation and Selection.
Biodiversity and flora and fauna	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species,	**Regulatory Framework and Decision Making Policy Objectives** ENV 01 Through implementation of the development plan we will cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management, including compliance with EU Directives - including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC) and the Strategic Environmental Assessment Directive (2001/42/EC) – and relevant transposing Regulations. ENV 02 Lower levels of decision making and environmental assessment should consider the sensitivities identified in the SEA Environmental Report that accompanies the Plan, including the following: • Special Areas of Conservation and Special Protection Areas; • Features of the landscape that provide linkages/connectivity to designated sites (e.g. watercourses, areas of semi-natural habitat such as linear woodlands

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
	ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.	etc); • Natural Heritage Areas and proposed Natural Heritage Areas; • Areas likely to contain a habitat listed in Annex 1 of the Habitats Directive; • Entries to the Record of Monuments; • Entries to the Record of Protected Structures; • Architectural Conservation Areas; and, • Landscape/amenity designations. ENV 03 The Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out in the SEA Environmental Report and Statement. This will include the preparation of stand-alone SEA Monitoring Reports: 1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the development plan; 2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan. **Regulatory Framework and Climate Change Policy Objectives** CA 01 To support and implement the policies of the Waterford Climate Adaptation Strategy in collaboration with Waterford Climate Action Team the Climate Action Regional Office (CARO), and review/replace the strategy pursuant to the provisions of the Climate Action Plan 2021 and Low Carbon Development Act. **Flood Management Policy Objectives** FM 01 Waterford City & Council will work with the OPW, LAWPRO and other agencies at a catchment-level to identify any measures, such as natural water retention measures, that can have benefits for the Water Framework Directive, flood risk management and biodiversity objectives. FM 02 Waterford City & Council will protect floodplains of river catchments in the County and retain them for their flood protection and natural heritage values. **Biodiversity Policy Objectives** BD 01 We will protect and conserve all sites designated or proposed for designation as sites of nature conservation value (Natura 2000 Network, Ramsar Sites, NHAs, pNHAs, Sites of Local Biodiversity Interest, Geological Heritage Sites, TPOs) and protect ecological corridors and networks that connect areas of high conservation value such as woodlands, hedgerows, earth banks and wetlands. We will contribute towards the protection and enhancement of biodiversity and ecological connectivity, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, the coastline, geological and geo-morphological systems, other landscape features, natural lighting conditions, and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive. BD 02 In support of the All-Ireland Pollinator Plan we will seek to maintain and enhance Waterford's biodiversity in favourable conservation condition so that environmental resilience and net gain in biodiversity enhancement and creation are achieved during implementation of this plan. BD 03 All proposed development will be considered in terms of compliance with the standards and legal requirements of the following where they apply; • Appropriate Assessment of Plans and Projects in Ireland-Guidance for Planning Authorities Department of Housing, Local Government and Heritage (2021). • NRA Guidelines on Ecological Impact Assessment (2009) • All-Ireland Pollinator Plan (2021) • Planning for Watercourses in the Urban Environment (2020) • Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites. **Natural Heritage N2K Network Policy Objectives** BD 04 Appropriate Assessment All projects and plans arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and subsequent Appropriate Assessment where necessary, that: 1. The plan or project will not give rise to significant direct, indirect or secondary effects on the conservation objectives of any European site (either individually or in combination with other plans or projects); or 2. The plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or 3. The plan or project will have an adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000. BD 05 Protection of European Sites Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b)

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place BD 06 Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The Local Authority support the preparation and implementation of management plans for the conservation of Natura 2000 sites, pNHAs and Sites of Local Biodiversity as per appropriate. **Biodiversity Assessment Policy Objectives** BD 07 We will protect plant and animal species and habitats which have been identified by the EU Habitats Directive (1997), EU Bird Directive (1979), Wildlife Act (1976) and Wildlife (Amendment) Act 2000 and the Flora Protection Order (2015) and ensure development does not impact adversely on wildlife species or the integrity and habitat value of the site. BD 08 We will assess all proposed developments at each level of the development planning process from City & County Development Plan, Local Area Plan to project level to determine potential for significant effects on the conservation objectives and /or adverse impact on the integrity of the Natura 2000 network and ensure that the requirements of Articles 6(3) and 6(4) of the Habitats Directive are fully satisfied. BD 9 We will ensure a sufficient level of information is provided in development applications to enable a fully informed assessment of impacts on biodiversity to be made. Ecological impact assessments submitted in support of development proposals shall be carried out by appropriately qualified professionals and ecological survey work carried out at optimal survey time to ensure accurate collation of ecological data. **Sites of Biodiversity Value Policy Objectives** BD 10 We will prevent unnecessary fragmentation and promote integration of existing green infrastructure such as trees, woodlands, hedgerows, earth banks and wetlands in the design of new development. Proposed development will be encourage to retain and create green corridors within and between built up urban areas along with areas that are not subject to public access so as to promote wildlife habitat value. BD 11 We will mitigate potential adverse impacts on existing biodiversity and green infrastructure in development proposals through requirement for biodiversity enhancement measures such as habitat creation, pollinator friendly landscaping schemes and or nesting boxes for pollinators, birds and mammals. BD 12 We will continue to develop the broader network of habitats through habitat mapping and management planning in collaboration with other agencies to record the range of habitats and network of ecological corridors and integrate this information in the development planning process. BD 13 We will prevent unnecessary noise and light disturbance to wildlife habitats and species by requesting Noise Impact Assessments and Lighting Plans to support development proposals so that wildlife friendly lighting specifications and avoidance of unnecessary noise are incorporated in early design stage of development schemes. BD 14 To promote sustainable and creative proposals in lighting and display technologies. All external lighting should be down lighting and should be time limited where possible. Lighting should be avoided in sensitive wildlife areas and light pollution avoided. All external light proposals should be accompanied by a light pollution study and deviations to the objective will only be considered where the applicant can clearly show that the proposed light solution would result in a more sustainable solution. **Wetland Policy Objectives** BD 15 We will ensure that Waterford's floodplains, wetlands and watercourses are retained for their biodiversity and flood protection values and maintain good ecological status of wetlands and watercourses in support of the provisions of the Water Framework Directive and Ramsar Convention. BD 16 We will protect wetland sites listed in Appendix A11 and other wetlands that may be identified of biodiversity value from infilling and other developments that may affect the biodiversity value of these sites. BD 17 The preservation of riparian corridors is a requirement for the protection of aquatic habitats and facilitation of public access to waterways. Development proposals will be required to avoid culverting of river channels while maintaining a buffer zone of at least 15m between the development works and the top of the riverbank. We will consult with Inland Fisheries Ireland and LAWPRO on the establishment and protection of riparian habitats where appropriate. **Drainage or Reclamation of Wetlands** BD 18 We will implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011, which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such applications for permission would need to be supported by an Appropriate Assessment where necessary. **Peatlands** BD 19 We will support the implementation of any relevant recommendations contained in the National Peatlands Strategy 2015. Developments sited on peatlands have the potential to increase overall carbon losses, potentially undermining expected carbon savings (in the case of renewable energy developments) and damaging rare habitats of European importance. It is recommended that when developing project proposals for developments on peatlands assessments are undertaken that consider: • Peatland stability; • Carbon emissions balance; and • Hydrology and Ecology. **Hedgerow Policy Objectives** BD 20 To protect hedgerows in all new developments, particularly species rich roadside and townland boundary hedgerows, such features should be incorporated into the open space provisions at the concept design stage. There will be a presumption against the removal of hedgerows however where their removal is unavoidable replacement planting shall involve establishment of new hedgerows with native species of local provenance and that support pollinating species. **Trees & Woodlands Policy Objectives** BD 21 We will preserve and enhance the amenity and biodiversity value of the County and City by preserving as far as possible trees, woodlands and hedgerows and will consider Tree Preservation Orders in order to protect trees of significance throughout the City and County. Existing TPOs are listed in Appendix 11. Trees of Special Amenity

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		Value are listed in Appendix 11. BD 22 To implement the Waterford City and County Tree Management Strategy 2021 and review as appropriate. BD 23 Where development proposals require felling of mature trees a comprehensive tree survey carried out by a suitably qualified arborist shall be submitted assessing the condition, ecological and amenity value of the treestock proposed for removal and mitigation planting and management scheme. We will seek in all cases to ensure when undertaking development or when permitting development that the loss of or damage to existing trees is minimised. BD 24 To ensure when planning to undertake development or when considering the approval or authorisation of development that adequate information to assess the impact of the proposed development on existing trees, including tree surveys and planting and management schemes, is provided and that the protection, preservation and management of existing trees of amenity value, and the implementation of a planned planting and management scheme, are provided for. BD 25 We will continue to enhance our public realm and general amenity of the City and County through the continued maintenance and provision of trees in the urban environment with a view to providing continuity of tree cover where possible throughout our urban centres and promoting the use of native species where possible, with varied species and age distribution. BD 26 We will carry out an audit of all trees of special amenity value and TPOs, as listed in Appendix 11,, with a view to updating same. **Forestry Policy Objectives** F 01 We will encourage the replanting and extension of woodland cover, in particular mixed forests and broadleaf forests, in order to ensure the preservation and enhancement of the arboreal landscape in the County F 02 We will support the economic, recreational and carbon sequestration potential of forestry. Forestry as a land use and its ancillary development will be encouraged in appropriate locations subject to such development not impacting on biodiversity/protected species such as Freshwater Pearl Mussel, interfering with significant views or prospects or being unduly obtrusive in the landscape. F 03 We will promote a greater mix of species in Forestry Plantations and to encourage greater structural and spatial diversity in plantation design and enhanced biodiversity and habitat value. We will facilitate afforestation in appropriate locations in co-operation with the Forest Service and Coillte and in accordance with the principles of Sustainable Forest Management codes of best practice and the Waterford Climate Adaptation Strategy and updates of these. F 04 We will co-operate with landowners, Coillte and the Forest Service in promoting greater public access and recreational use of state and privately owned forests in Waterford. F 05 To ensure that linear felling of trees is not encouraged in exposed or scenic areas and also promote phased rather than clear felling. **Invasive Species Policy Objectives** BD 27 We will support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non-native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required. Where development is approved for sites containing known invasive species, we will consider, where appropriate, the use of conditions for control and removal of invasive species. BD 28 We will promote awareness of invasive species and appropriate management, and work with other agencies to address the issue. **Blue Green Infrastructure Policy Objectives** BGI 01 To conserve, manage and enhance the natural heritage, biodiversity, landscape and environment of Waterford in recognition of its importance as a non-renewable resource and as a natural asset for health and well-being of our communities. BGI 02 To establish BGI as a key component in the planning process and designing the future for Waterford so that environmental resilience is achieved through implementation of this plan. BGI 03 We will develop a BGI Strategy the City and County during the lifetime of this plan. BGI 04 We will assess all proposals for development with the aim of no net loss of biodiversity and to achieve gain for BGI and ecosystem services. In particular we will: • Promote the retention and creation of open drainage ditches instead of underground pipes where appropriate as these provide additional habitats and water source for wetland species; and, • Promote the integration of Sustainable Drainage Systems (SuDS) in design concept and layout. BGI 05 We will continue to invest in the maintenance and enhancement of BGI and support the provision of new parks, green space corridors and other public open spaces across our urban and rural settlements. **Amenity Asset Management Policy Objective** BGI 12 We will commission an integrated management plan and management structure addressing recreation, conservation, landscape and socio-economic development issues in Waterford's uplands. BGI 16 Visitor and Habitat Management Where relevant, the Council and those receiving permission for development under the Plan shall seek to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for proposed projects as relevant and appropriate. BGI 17 Increases in Visitor Numbers to Semi-Natural Areas Seek to manage any increase in visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that new any projects, such as greenways, are a suitable distance from ecological sensitivities, such as riparian zones.

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Population and human health	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	ECON 20 SEVESO III Sites We will take into account the provisions of the Major Accidents Directive, relating to the control of major accident hazards involving dangerous substances, and the recommendations of the Health and Safety Authority in the assessment of all planning applications located within the consultation distance of such sites.
Soil	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.	**Natural Heritage and Environmental Quality Policy Objectives** ENV 05 Soil Protection, Contamination and Remediation Ensure that adequate soil protection measures are undertaken where appropriate. Adequate and appropriate investigations shall be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed. The EPA's publication Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (2007) shall be taken into account as relevant by proposals for development within or adjacent to old landfill sites. All undeveloped, contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant remediation incorporating international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Treatment/management of any contaminated material shall comply as appropriate with the Waste Management Act 1996 (waste licence, waste facility permit), as amended, and under the EPA Act 1992 (Industrial Emissions licensing, in particular the First Schedule, Class 11 Waste), as amended. These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk. Prior to the grant of approval on contaminated sites, developers will be required to carry out a full contaminated land risk assessment to demonstrate: • How the proposed landuses will be compatible with the protection of health and safety (including the durability of structures and services) - during both construction and occupation; and • How any contaminated soil or water encountered will be appropriately dealt with. **Geology Policy Objectives** G 01 We will contribute towards the appropriate protection and maintenance of the character, integrity and conservation value of features or areas of geological interest. We will protect from inappropriate development the scheduled list of Geological Heritage Sites detailed in Appendix 11. G 02 We will protect and promote the geological heritage of the UNESCO Copper Coast Geopark and support the work of the Geopark to ensure it retains and adds value to its designation status as a UNESCO Geopark.".
Water	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.	**Natural Heritage and Flood Management Policy Objectives** NH 05 Waterford City & Council will work with the OPW, LAWPRO and other agencies at a catchment-level to identify any measures, such as natural water retention measures, that can have benefits for the Water Framework Directive, flood risk management and biodiversity objectives. NH 06 Waterford City & Council will protect floodplains of river catchments in the County and retain them for their flood protection and natural heritage values. **Natural Heritage and Water Quality Policy Objectives** NH 07 Water Framework Directive and associated legislation We will contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, the coastline, groundwater and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations 2010 (as amended) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development. NH 08 In order to maintain water quality at high status and a return to good status for rivers that are not meeting this threshold at present we will: • Provide for the efficient and sustainable use and development of water resources and water services infrastructure. • Manage and conserve water resources in a manner that supports a healthy society, economic development requirements and a cleaner environment. • Ensure that all development does not negatively impact on water quality and quantity, including surface water, ground water, designated source protection areas, river corridors and associated wetlands, estuarine waters, coastal and transitional waters. • Ensure new development complies with the relevant EPA Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (2009) or any amendments thereto. • Screen planning applications according to their Water Framework Directive status and have regard to their status and objectives to achieve 'good' status or protect and improve 'high or good status'. A catchment based approach shall be applied to the assessment of planning applications which may impact on water quality, and to ensure that the development would not result in a reduction in the water quality status of a waterbody in that catchment. • Seek to protect, enhance and restore all groundwaters and ensure a balance of abstraction and recharge, with the aim of achieving good groundwater status and to reverse any significant and sustained upward trends in the concentration of pollutants in groundwater. • Work with the Local Authority Waters Programme and other relevant State agencies and local communities to achieve the objectives for the Areas for Action identified in the River Basin Management Plans 2018-2021 and 2022-2027 to ensure that new development do not result in a deterioration of water quality

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		in these areas. • Develop the associated Blue Dot Catchment network programme under the River Basin Management Plan 2018-2021 to protect and maintain the excellent quality of 'High' status water bodies. NH 09 River Basin Management Plan Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and associated Programme of Measures, or any such plan that may supersede same during the lifetime of the plan. Proposed plans, programmes and projects shall not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated woodlands. Also, to have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive. NH 10 Catchment-sensitive farming practices We will encourage the use of catchment-sensitive farming practices, in order to meet Water Framework Directive targets and comply with the River Basin Management Plan. NH 11 We will maintain Bathing Water standards in line with the EU Bathing Water Directive and increase the number of blue flag beaches.
Air and Climatic Factors	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	**Natural Heritage and Environmental Quality Policy Objectives** ENV 01 Air and Energy We will contribute towards compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage. ENV 02 CAFE Directive Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).
Material Assets	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the	UTL 02 Water Services To collaborate support and work, in conjunction with Irish Water, to ensure the timely delivery and provision, extension and upgrading of existing and new high quality, climate resilient, water services infrastructure, in order to facilitate the sustainable growth and development of our City and County, in accordance with an ecosystem services and integrated catchment management approach, and the Development Plan Core and Settlement strategies. UTL 03 Water Supply and Drinking Water Regulations We will collaborate with Irish Water in contributing towards compliance with the European Union (Drinking Water) Regulations Drinking Water Regulations 2014 (as amended) and compliance of water supplies with the parameters identified in these Regulations. All new developments must be satisfactorily served by either a mains water supply, or by a private water supply. The preferred option will always be a public water supply and drainage solution. It will be the responsibility of the developer to demonstrate that any new supply is adequate to serve the proposed development and that for domestic use, it is safe to be consumed as drinking water. Groundwater abstractions must comply with EPA policies and guidelines. UTL 04 Drinking Water Report for Public Water Supplies In conjunction with Irish Water, we will have regard to the EPA 2020 publication "Drinking Water Report for Public Water Supplies 2019" (and any subsequent update) in the establishment and maintenance of water sources in the County. UTL 05 EPA's Remedial Action List In conjunction with Irish Water, undertake recommendations made by the EPA arising from any failure to meet drinking water standards and any enlistment on the EPA's Remedial Action List. UTL 06 Urban Waste Water Treatment Regulations We will collaborate with Irish Water in contributing towards compliance with the relevant provisions of the Urban Waste Water Treatment Regulations 2001 and 2004 and the Waste Water Discharge (Authorisation) Regulations 2007 as amended. It is the Council's preference that all new development connect to existing public wastewater treatment facilities without the need for upgrades being required to the facilities, and wastewater network connections are provided by the developer. Development will only be permitted in instances where there is sufficient capacity for

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	mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.	appropriate collection, treatment and disposal (in compliance with the Water Framework Directive and River Basin Management Plan) of waste water. All new developments shall ensure that: • A separate foul and surface water drainage system is provided - the discharge of additional surface water to existing combined (foul and surface water) sewers is prohibited in order to maximise the capacity of these collection systems for foul water. • Where permitted, private wastewater treatment plants, are operated in compliance with: - 2021 Code of Practice for Domestic Waste Water Treatment Systems EPA, as may be amended. - EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (1999) and EPA Guidance on the Authorisation of Discharges to Groundwater (EPA 2011), as may be amended. Where a connection to public drainage infrastructure is demonstrated to be unfeasible, and/ or is not available, alternative developer-provided infrastructure, developed in collaboration with the Local Authority or otherwise, may be required/ facilitated if it is satisfactorily demonstrated that disposal of foul water can be achieved without negative impacts on public health, amenity or the environment. The detailed design of any such alternative developer provided infrastructure to service new development within our settlements should meet the technical requirements of Irish Water and may be considered in the following order of priority preferences: i. Where the proposed development exceeds the capacity of the existing treatment plant, the developer shall provide for the upgrade of the treatment plant and connection to the public network. This may be best achieved in settlements such as Lemybrien where the existing ICW can be extended as a low tech/low risk design solution. (Note from table 1 attached the Irish Water proposal to upgrade the WWTP in Lemybrien as part of the STVGP) ii. Where no existing public treatment system exists (certified or otherwise), the developer shall be responsible for developing a new ICW – preferably outside the respective settlement boundary. Such provision will involve the laying of a new network. iii. Where no, or inadequate, public waste-water treatment facilities exist, serviced sites within or immediately adjoining the settlement may be supported. In such instances, serviced site developments on 0.20 hectares (½ acre) plots with individual treatment systems will be required as a temporary measure, until such time as waste-water facilities become available. The serviced sites must be designed to permit the subdivision of each of the 0.20 hectare plots into two 0.10 hectare sites once adequate services become available. The residual land can then be developed for additional serviced sites in the future. Risk and maintenance lies with the individual home owner. Planning permission may be granted on the condition that private drainage infrastructure may be used temporarily, with the requirement to connect to public drainage infrastructure when it becomes available. Note: As per Section 5.3 of the Draft Water Services Guidelines for Planning Authorities, 'Alternative solutions such as private wells or waste water treatment plants should not generally be considered by planning authorities. UTL 07 Water Conservation To require that developments incorporate demand management and water conservation measures such as rain water harvesting and grey water use, among all users, to minimise wastage of water supply, and as viable alternatives to attenuation, and to support Irish Water in implementing water conservation measures such as leakage reduction and network improvements. UTL 08 Protection of Water Resources To work together with Irish Water towards a common goal of protecting our drinking water sources. This will be achieved by: • Supporting the preparation and implementation of Drinking Water Protection Plans by Irish Water, to protect sources of public water supply, in accordance with the requirements of the Water Framework Directive; • Having regard to the EPA 2019 publication 'Drinking Water Report for Public Water Supplies 2018' (and any subsequent update) in the establishment and maintenance of water sources in the County in conjunction with Irish Water; • Protecting both ground and surface water resources including taking account of the impacts of climate change, the cumulative impacts of septic tanks and waste water treatment systems, and to work with and support Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing catchment. UTL 09 Storm and Surface Water Management To require the use of Nature Based Solutions and Sustainable Drainage Systems to minimise and limit the extent of hard surfacing and paving, and require the use of SuDS measures to be incorporated in all new development (including roads and public realm works and extensions to existing developments). Surface water drainage must be dealt with in a sustainable manner, in ways that promote its biodiversity value, and in ways that avoid pollution and flooding, through the use of an integrated SuDS (including integrated constructed wetlands), where appropriate. This includes runoff from major construction sites. Development proposals shall be accompanied by a SuDS assessment, which includes details of run-off quantity and quality and impacts on habitat and water quality, and shall demonstrate how runoff is captured as close to source as possible with subsequent slow release to the drainage system and watercourse, as well as the incorporation of appropriate measures to protect existing water bodies and remove pollutant materials. The detail of the assessment should be commensurate with the scale of the development proposed. Storm/ surface water management and run-off design should be carried out in accordance with Sustainable Urban Drainage Systems (SuDS) standards such as: • 'The SuDS Manual "(CIRIA, 2015), "Sustainable Drainage: Design and Evaluation Guide" (McCloy Consulting & Robert Bray Associates); • "Dublin Corporation Stormwater Management Policy Technical Guidelines"; • "Greater Dublin Regional Code of Practice for Drainage Works" incorporating "Greater Dublin Strategic Drainage Study, Volume 2, New Development" or any future updates; and • The capacity and efficiency of the strategic road network drainage regimes in County Waterford will be safeguarded for national road drainage purposes. In all instances the use of Nature Based Solutions is preferred to engineered solutions. Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas: Water Sensitive Urban Design Best Practice Interim Guidance Document

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		2022 (DHLG&H) and updates of same. UTL 10 Flooding/ SFRA To reduce the risk of new development being affected by possible future flooding by: • Avoiding development in areas at risk of flooding, • Where possible, reducing the causes of flooding to and from existing and future development; • Increase the application of SuDS such as permeable paving, bioretention/infiltration ponds, swales and Natural Water Retention Measures, and the identification of existing areas which may be suitable for temporary storage/overflow of water during heavy storms; • Where development in floodplains cannot be avoided, taking a sequential approach to flood risk management based on avoidance, reduction and adaptation to the risk; and, • Ensuring that all proposals for development falling within Flood Zones A or B are consistent with the "The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009", "Climate Action and Low Carbon Development Act" (2021), and any amendment thereof, and the "Waterford Strategic Flood Risk Assessment" (2021) as included in Appendix 13 • To support the making of Local Area Plan for larger urban centres we will prepare surface water management plans where adequate data exists to support their preparation. Where data is lacking we will carry out a data review gap analysis and prepare conceptual surface water management plans as an initial step. Proposals for development identified as being vulnerable to flooding must be supported by a site specific Flood Risk Assessment, and demonstrate to the satisfaction of the Planning Authority that the development and its infrastructure will avoid significant risks of flooding and not exacerbate flooding elsewhere. We will support the development of new flood relief schemes by the OPW, in particular those at Aglish, Ballyduff and Dungarvan & Environs while protecting public investment in flood relief schemes as detailed in section 4.4.3 of the SFRA (Appendix 13). UTL 11 Flood Plains To contribute towards the improvement and/or restoration of the natural flood risk management functions of flood plains subject to compliance with the environmental legislation and availability of resources, and ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time. UTL 17 Waste Services (Infrastructure & Management) The Council will continue to promote and facilitate the principles of the circular economy in minimising waste going to landfill and maximise waste as a resource, with prevention, preparation for reuse, recycling and recovery prioritised in that order, over the disposal of waste. This will be assisted by: Promoting and facilitating high quality sustainable waste recovery and disposal infrastructure/ technology at appropriate locations in Waterford, subject to the protection of the amenities of the surrounding environment including European Sites, guidelines incorporated into the new Regional Waste Management Plan, the siting guidance 'Waste Management Infrastructure – Guidance for Siting Waste Management Facilities' that will be incorporated into the new National Waste Management Plan for a Circular Economy and in keeping with the EU waste hierarchy; • Continuing to facilitate and promote the provision of civic amenity sites, including 'bring centres' for the purposes of providing a collection point for the recycling of domestic waste, subject to siting, location, compatibility with adjacent land uses and other relevant development management criteria. • Requiring the facilitation of bring centres in larger retail developments. • Requiring, where necessary, Project Construction and Demolition Waste Management Plans as part of applications for development in accordance with "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects" (DoEHLG, 2006). Such plans should be submitted for developments above the thresholds stated in these guidelines, and as required by the Planning Authority. • Ensuring all developments have adequate space to facilitate storage and segregation of waste arising from the development. • Supporting the implementation of the Southern Region Waste Management Plan 2015-2021 (SRWMP) and any updates made thereto, including through the assessment of planning applications by reference to the SRWMP siting and development guidelines for waste infrastructure. UTL 20 Waste Management Regulations and Closed Landfills The Council shall continue to fulfil its duties under the Waste Management (certification of historic unlicensed waste disposal and recovery activity) Regulations 2008 (S.I. No 524 of 2008), including those in relation to the identification and registration of closed landfills. UTL 22 We will safeguard the environment by seeking to ensure that residual waste is disposed of appropriately. All waste arising during construction will be managed and disposed of in a way that ensures the provisions of the Waste Management Acts and the Southern Waste Management Plan 2015-2021. UTL 23 We support the minimisation of waste creation and promote a practice of reduce, reuse and recycle where possible.
Cultural Heritage	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities	**Heritage Strategic Objectives** • To identify, protect, manage and enhance the rich qualities of the built, cultural and natural heritage of the City and County, and to encourage its sensitive and appropriate integration into the sustainable development of our places for the benefit of present and future generations. The Plan seeks to achieve a balance between the foregoing and economic prosperity and social integration. • To seek the protection, sustainable management and enhancement of Waterford's built heritage; to promote the appropriate regeneration and reuse of our historic structures which strengthen a sense of place; to promote awareness and enjoyment of our built heritage for the present and future generations. **Heritage Policy Objectives** Heritage 01To implement and review the Waterford Heritage Plan in partnership with all relevant stakeholders and subject to available resources. Heritage 02To support the objectives of Heritage Ireland 2030 in relation to Communities and Heritage, Leadership and Heritage and Heritage Partnerships.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		Built Heritage Policy Objectives BH 01 We will promote the protection of the architectural heritage of the City and County through the identification of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, by the inclusion of such structures on the Record of Protected Structures (RPS) and by taking such steps as are necessary to ensure the protection of those structures, their maintenance, conservation, enhancement, and appropriate active use. To this end we will contribute towards the protection of architectural heritage by complying, as appropriate, with the legislative provisions of the Planning and Development Act 2000 (as amended) in relation to architectural heritage and the policy guidance contained in the Architectural Heritage Protection Guidelines 2011 (and any updated/superseding document). BH 02 It is the policy of the Council: • To promote the sustainable reuse of protected structures for any such purpose compatible with the character of the structure. The Planning Authority may, where considered appropriate, relax use zoning and other site development restrictions and may grant exemption from or reduce the amounts of development contributions payable in order to secure the protection and conservation of protected structures or historic structures within ACAs and by way of reduction of development levies for improvements to Protected Structures. These restrictions may be relaxed and development contributions reduced or exempted where the protected structure will be rehabilitated to a high standard, where the special interest, character and setting of the building is protected and where the proposed use and development is consistent with conservation policies and the proper planning and sustainable development of the area. In such cases the proposed development shall be open for consideration notwithstanding the current zoning objective for the site and therefore shall be considered as not materially contravening the Development Plan. • To administer incentives for the protection of the architectural heritage of the City and County through administration of the Built Heritage funding schemes or similar Department of Housing Local Government and Heritage funding schemes • To advise with regard to best conservation practice as per Architectural Heritage Protection Guidelines for Planning Authorities 2011 available on https://www.waterfordcouncil.ie/departments/culture-heritage/heritage/protected-structures.htm and Department of Housing Local Government and Heritage Advice Series available on https://www.buildingsofireland.ie/resources/. BH 03 We will issue Section 57 Declarations on request to owners or occupiers of protected structures detailing the type of works that it is considered would or would not materially affect the character of the structure or of any element of the structure which contributes to its special interest. BH 04 Proposals for the demolition of a Protected Structure may be considered in exceptional circumstances and the onus will be on the developer to provide the strongest justification for such an action as per the Heritage Protection Guidelines for Planning Authorities and other guidance. BH 05 It is the policy of the Council to: • Achieve the preservation of the special character of places, areas, groups of structures setting out Architectural Conservation Areas (ACA). • Protect the special heritage values, unique characteristics and distinctive features, such as shopfronts within the ACA from inappropriate development which would detract from the special character of the ACA. • Prohibit the demolition of historic structures that positively contributes to the distinctive character of the ACA. • Encourage the undergrounding of overhead services and the removal of redundant wiring/cables within an ACA and to assesses all further cable installations against its likely impact on the character of the ACA as the cumulative impact of wiring can have a negative impact on the character of ACAs. • Provide guidelines on appropriate development to retain its distinctive character; and protect elements of the streetscape such as rubblestone boundary walls, planting schemes and street furniture such as paving, post boxes, historic bollards, basement grills, street signage/plaques, etc. which make a positive contribution to the built heritage; • Retain or sensitively reintegrate any surviving items of historic street furniture and finishes such as granite kerbing and paving that contribute to the character of an ACA. BH 06 It is the policy of the Council when considering development which may have a significant impact on a protected structures, its setting or curtilage or have an impact on an ACA, that the proposal be accompanied by an architectural heritage impact assessment (AHIA) detailing the potential impact of the development on the architectural heritage. The report should be compiled in accordance with the details set out in Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities, Department of the Environment. BH 07 It is the policy of the Council • to identify and implement measures for promoting the character of the historic cores of the city, towns and villages, their unique identity and their architectural, archaeological, historical and cultural, social interest and diversity in order for them to be a good area to work, live and visit. BH 08 It is a policy of the Council • To encourage sympathetic development or reuse of historic buildings to promote heritage led economic growth and regeneration whilst not adversely detracting from the building or its setting. Any proposals shall respect features of the special architectural and historic character by appropriate design, materials, scale, and setting. BH 09 Ecological Impact Assessment It is the policy of the Council to request an ecological impact assessment where development may have an adverse impact on protected wildlife species such as bats or nesting birds. The incorporation of biodiversity enhancement measures shall be a requirement in repair works to existing or design of new developments". BH 10 It is the policy of the Council • To facilitate appropriate, high-quality design solutions for adaptations of Protected Structures and historic buildings in an ACA that carefully consider the design, height, scale, massing, and finishes of adjacent buildings.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		BH 11 It is the policy of the Council • To protect structures and curtilages included in the RPS or historic structures within ACA, from any works which would visually or physically detract from the special character of the main structure, any structures within the curtilage, or the streetscape or landscape setting of the ACA. BH 12 It is the policy of the Council • To ensure the protection of the settings and vistas of Protected structures, and historic buildings within and adjacent to ACAs from any works which would result in the loss or damage to their special character. BH 13 It is the policy of the Council • To encourage the sensitive redevelopment of vacant or derelict sites within the ACA and historic cores of the city, towns and villages whilst promoting a high standard design which respects urban plots, roof lines vistas and streetscape. BH 14 It is the policy of the Council to: • Encourage the sensitive redevelopment and reuse of the ground floor shop units of Protected structures or buildings in the historic cores for other uses including residential whilst retaining the shopfront façade, windows and doorways to upper floors • Promote the sustainable reuse and refurbishment of vacant upper floors of buildings in the historic core for residential use through incentives such at the Repair and Lease Scheme. BH 15 It is the policy of the Council to • Ensure that all original and traditional shopfronts which contribute positively to the appearance and character of a streetscape are retained and restored and new shopfronts are well designed, through the sympathetic use of scale, proportion and high quality materials. BH 16 It is the policy of the Council to • Promote and ensure the conservation and reuse of traditional materials and features. Original building fabric such as rubblestone and brick walls, lime mortar render, natural slate, thatch, chimneys, brick detailing, ironwork and joinery details such as timber sash windows, shopfronts, doorways and bargeboards shall be retained. Where traditional features such as timber sliding sash windows have been removed, their reinstatement shall be encouraged. • Encourage the retention and development of the traditional skills base in County Waterford and maintain the Conservation Skills register. BH 17 We will publish guidelines for best practice in the care of historic shopfronts during the lifetime of the development plan. BH 18 It is a policy of Council to: • Protect and promote the setting and visual amenity of historic gardens and designed landscapes. • Protect all elements of historic gardens and designed landscapes including structures, tree planting schemes, manmade features such as waterways, boundary features within the attendant grounds of Protected Structures. • Proposed development which have the potential to visually or physically impact on the character and/or the appearance of an historic designed landscape should be justified through a Design Landscape Assessment /Architectural Heritage Impact Assessment. BH 19 We will assess the need to establish additional areas for designation as ACA for Demesnes and to extend the boundaries of the existing ACAs having regard to their special architectural, historic, archaeological, artistic, cultural, scientific, social or technical interest or value or contribution to the appreciation of protected structures and settings and vistas. BH 20 It is a policy of the Council • To protect and promote the sustainable reuse and development within large complexes such as workhouses, school, barracks, convents, abbeys, hospitals included in the RPS, and that such proposals would be justified through an overall Conservation Plan. BH 21 It is the Policy of the Council to • identify, protect and encourage the sympathetic reuse of elements of the industrial heritage and to encourage sustainable reuse of underutilised/vacant industrial buildings for residential, commercial or tourism use. • All development proposals for industrial buildings and sites of industrial archaeological importance must be accompanied by an archaeological assessment of the building(s) and their surrounding environment. In all cases the retention and/or incorporation of industrial buildings will be encouraged and only in exceptional circumstances will demolition be considered. BH 22 During the life of the development plan we will: • Update the Industrial Heritage of Waterford Survey (2008) • Survey our maritime heritage which includes quays, harbours, river quays and walls, and navigation aids. BH 23 It is the policy of the Council to: • Support and implement the objectives of: o The Climate Change Sectoral Adaptation Plan (2019) for built and archaeological heritage, o The Waterford Climate Action Plan (2019) in building resilience for our historic sites and buildings from climate change. o Department of Environment, Heritage and Local Government's publication on 'Energy Efficiency in Traditional Buildings' (2010). o The Irish Standard IS EN 16883:2017 'Conservation of Cultural Heritage - Guidelines for Improving the Energy Performance of Historic Buildings' (2017). o Any future advisory documents in assessing proposed works on Protected Structures. • Promote the just transition to a low carbon and climate resilient society in the interest of sustainability and to reduce landfill by acknowledging the embodied energy retention and reuse of our historic building stock. • Promote the appropriate rehabilitation, revitalization and reuse of vernacular buildings, and town houses, wherever feasible, employing best conservation practice and using traditional building methods and materials such as timber windows in the interest of sustainability, good conservation practice and

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		maintaining the long-term viability of such buildings and their associated features and improve their resilience to climate change • Ensure that measures to upgrade the energy efficiency of historic buildings acknowledge their inherent characteristics, techniques and materials and do not have a detrimental physical or visual impact on the building or its character • Support appropriate and well-informed energy efficiency upgrades to structures on the Record of Protected Structures and historic buildings through the dissemination of factual and relevant information to the general public. • Identify the built and archaeological heritage in local authority ownership and areas at risk from climate change including, but not necessarily restricted to, the Record of Monuments and Places, protected structures and architectural conservation areas designated in the development plan. BH 24 It is the policy of the Council to: • Protect, maintain and enhance the historic character and setting of vernacular buildings, farmyards and settlements • Encourage appropriate revitalisation and reuse of such structures (see rural diversification/tourism). There will be a presumption against the demolition of vernacular buildings where restoration or adaptation is a feasible option. • Promote the protection and maintenance of thatched buildings (domestic or non-domestic), particularly those with historic layers and roof structures. BH 25 During the life of the development plan we will: • Update the Thatch House survey of County Waterford • Promote available grant schemes and facilitate engagement with owners in the maintenance of these buildings. BH 26 It is a policy of the council to • Encourage and facilitate the sensitive reuse of vernacular houses or farm buildings for farm diversification, agritourism and rural development, including self-catering accommodation, arts or craft workshops and small-scale manufacturing. Guidance and information can be found in Traditional Buildings for Irish Farms (2005) published by the Heritage Council and Teagasc, and Reusing Farm Buildings: A Kildare Perspective (2006) published by Kildare County Council. BH 27 It is the policy of the Council where proposals for sensitive rehabilitation of disused vernacular buildings in the open countryside are being considered they will not be required to establish a rural housing need provided that their vernacular character is enhanced and that their fabric is repaired using appropriate techniques and materials. Where the subject structure is demolished a rural housing need will be required. BH 28 It is the policy of the Council to ensure that where permission is sought to demolish a structure which is considered of vernacular significance, on the grounds of structural defects or failure, or that it is not reasonably capable of being made structurally sound, the developer will be required to submit a report by a professional with appropriate conservation expertise and an understanding of vernacular buildings which demonstrate substantial reasons for the demolition. It must be satisfactorily demonstrated that every effort has been made to continue the present use or find a suitable new use for the structure(s). BH 29 It is the policy of the council to ensure that where it is proposed to extend an existing vernacular house/ building, the design, scale, footprint and materials should be sympathetic to the existing building and its setting. Extensions should: • generally be located to the rear and not obscure the form or layout of the existing building; • substantial removal of walling should be avoided; • connecting the existing building and extension should minimise the number of new openings and ideally use existing openings; and, • Where feasible outbuilding contiguous to a dwelling can sometimes be successfully incorporated. BH 30 It is the policy of the Council to: • To promote a high standard of civic amenity and design and to respect existing open spaces, urban spaces, settings, vistas street furniture and streetscape within historic cores. The Council shall consider the receiving environment when erecting signage, undertaking road markings, providing traffic control measures bike lanes, parking spaces, planting and road and footpath access works, and ensures that all such works are sensitive to the to the distinctive character of the area and streetscape. • Preserve the retention of historic items of street furniture where these contribute to the character of the area, including items of a vernacular or local significance. • Ensure street furniture and signage is kept to a minimum, is of high quality design and material and that any redundant street furniture is removed. BH 31 We will protect and preserve the integrity and enhance elements of the built heritage such as limekilns, quays, bollards, bridges and their settings. BH 32 It is a policy of the Council • To demonstrate best practice with regard to Protected Structures, Recorded Monuments and other elements of architectural and archaeological heritage in the ownership and care of the Council and to ensure appropriate materials and methodologies are used for the repair works. BH 33 During the life of the development plan we will carry out an audit of all protected structures in our ownership with a view to securing uses that are compatible with the character of the individual protected structure. BH 34 It is the policy of the Council to promote public awareness of the value of the our historic built heritage and our archaeology and the positive contribution protected structures, historic structures and archaeology make to the built environment, the sense of place, distinctiveness and authenticity of an area and the tourism potential to Waterford and to develop specific measures to achieve such awareness. BH 35 We will continue the publication of architectural/archaeological guides series such Historic Waterford – The Coast , Architectural Waterford, Heritage Tourism Guides on line (or via app). **Archaeological Heritage Policy Objectives** AH 01 It is the policy of the Council to protect, and enhance in an appropriate manner all elements of the archaeological heritage including the following categories: a) Sites and monuments included in the Sites and Monuments Record as maintained by the Department with responsibility for the protection of Ireland's archaeological heritage.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		b) Monuments and places included in the Record of Monuments and Places (RMP) as established under the National Monuments Acts. c) Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts. d) National Monuments subject to Preservation Orders under the National Monuments Acts and National Monuments which are in the ownership or guardianship of the Minister with responsibility for archaeological heritage or a local authority. e) Archaeological objects within the meaning of the National Monuments Acts. f) Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service, underwater archaeology, riverine, coastal or lacustrine locations. g) Archaeological features not as yet identified but which may be impacted on by development. And where feasible, appropriate and applicable to promote access (including disabled access) to and signposting and interpretive material of such sites and monuments and provide appropriate forms of virtual access where physical access is not possible. AH 02 We will contribute, as appropriate, towards the protection and sympathetic enhancement of archaeological heritage, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended) and the National Monuments Act, 1930 (as amended). We will ensure that archaeological excavation is carried out according to best practice as outlined by the National Monuments Service, Department of Housing, Local Government and Heritage, the National Museum of Ireland and the Institute of Archaeologists of Ireland. We will consult with the National Monuments Service as relevant in relation to proposed developments, including those adjoining archaeological sites. AH 03 It is the policy of the Council • Waterford City & County Council shall, in an appropriate manner, secure either by preservation in-situ or preservation-by-record, the archaeological heritage. In this regard priority shall be given to the preservation in-situ of any archaeological monument/site/place as the first option considered. If preservation in-situ cannot be achieved, or can only be achieved in-part, then preservation-by-record of elements of the archaeological heritage will be required –this will require the full archaeological excavation and recording of the monument/site, according to best professional practice. Where excavation is required this shall also include the preparation of appropriate reports, post-excavation analyses and publications. The costs of assessing and mitigating archaeological impacts shall form part of development costs as borne by the developer. AH 04 It is the policy of the Council to: Ensure that development in the vicinity of a site of archaeological interest shall be designed and sited sympathetically and shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing. • When considering development in the vicinity of all archaeological sites including remnants of the city and town walls, the planning authority will require the preparation of an archaeological assessment detailing the potential impact of any development on upstanding structures, buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains. • Proposed developments will be required to retain the existing street layout, including laneways, historic building lines and traditional plot widths where these derive from medieval or earlier origins. • When considering development in the vicinity of upstanding archaeological/historical monuments, to aim to achieve a satisfactory buffer area between the development and the monument in order to ensure the preservation and enhancement of the amenity associated with the presence of upstanding monuments within the historic urban pattern. • For all developments, which have potential to impact on riverine, intertidal and sub-tidal environments to require an archaeological assessment prior to works being carried out. In addition to planning permission, development works at National Monuments of which the Minister or local authority is owner of, guardian of or in respect of which a preservation order is in force, may also require Ministerial Consent under Section 14 of the National Monuments Act 1930 (as amended) and this will be determined by the relevant authority (Department of Housing, Local Government & Heritage) on application. AH 05 We will protect the essential character and setting of the City Walls and Towers through the control of the design, location and layout of new development in their vicinity and through the control of changes of use of lands, by the protection of adjoining streetscapes and site features where appropriate and by protecting important views to and from the walls and towers from obstruction and/or inappropriate intrusion by new buildings structures, plant and equipment, signs and other devices; and where opportunities arise to create additional views of the walls and towers. We will continue to protect enhance and promote the City Walls by updating the City Walls Plan (2014) and implement an Interpretation Plan for Waterford Medieval City Walls and Towers. AH 06 We will deliver the actions of the Woodstown Viking Site Conservation Management Plan 2020, in collaboration with the Woodstown Steering Committee and all relevant Stakeholders. AH 07 It is a policy of the Council to • Utilise Waterford's archaeology such as its City Walls and Towers as an educational and tourism resource and to facilitate the publication and dissemination of interpretative material to the general public, and to facilitate public access to the walls and towers and other sites of interest. • Promote the incorporation of or reference to significant archaeological finds in a development, where appropriate, through layout, displays, signage, plaques, information panels or use of historic place names. AH 08 It is the policy of the Council • to apply best practice in the care and management of historic graveyards as detailed in the guidance document on the "Care, Conservation and Recording of Historic Graveyards in County Waterford" published by Waterford County Council in 2009 and the Department of Housing, Local Government and Heritage Advice Series Places of Worship available on https://www.buildingsofireland.ie/app/uploads/2019/10/Places-of-Worship-The-Conservation-of-Places-of-Worship-2011.pdf

Topic	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		AH 09 We will promote community archaeology projects such as the Adopt a Monument Scheme and avail of funding to support same in the interests of conserving sites and monuments in the city and county.
Landscape	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	**Landscape Policy Objectives** L 01 National Landscape Strategy We will support provisions of the 2014 National Landscape Strategy and provide for the sustainable management of all of County Waterford's landscapes including archaeological landscapes, waterway corridors, coastal, upland, rural and peri-urban landscapes. L 02 Protecting our Landscape and Seascape We will protect the landscape and natural assets of the County by ensuring that proposed developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area and ensuring that such proposals are not unduly visually obtrusive in the landscape, in particular, in or adjacent to the uplands, along river corridors, coastal or other distinctive landscape character units. L 03 Landscape and Seascape Character Assessment We will assess all proposals for development outside of our settlements in terms of the 2020 Landscape and Seascape Character Assessment (Appendix 8) and the associated sensitivity of the particular location. We will require a Landscape and Visual Impact Assessment (LVIA) for proposed developments with the potential to impact on significant landscape features within the City and County. Proposals for significant development (e.g. renewable energy projects, telecommunications and other infrastructure and the extractive industry) shall be accompanied by a LVIA which includes Zones of Theoretical Visibility (ZTV) which indicate the landscape impact zone within which the proposed development may be seen. There will be a presumption against developments which are located on elevated and exposed sites and where the landscape cannot accommodate such development with reasonable and appropriate mitigation. LS 04 Scenic Routes and Protected Views We will protect the scenic routes and specified protected views identified in our Landscape Character Assessment (Appendix 8), including views to and from the sea, rivers, landscape features, mountains, landmark structures and urban settlements from inappropriate development that by virtue of design, scale, character or cumulative impact would block or detract from such views.

Section 3 Environmental Report and Submissions/ Observations

3.1 Introduction

This section details how both the Environmental Report and submissions and observations made to Waterford City and County Council on the Environmental Report and SEA process have been taken into account during the preparation of the Plan and the SEA.

3.2 SEA Scoping Notices and Submissions

As part of the scoping process for preparation of the Plan, environmental authorities[3] were notified that a submission or observation in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to the Council.

Submissions were made by the Environmental Protection Agency, the Department of Communications, Climate Action and Environment and the Department of Culture, Heritage and the Gaeltacht in response to the SEA Scoping Notices. The issues raised in these submissions and how these issues have been taken into account during preparation of the Plan and the SEA are provided on Table 3.1 below. Taking into account these submissions included integrating environmental considerations into the Plan, including through the selection of Plan provisions identified on Table 2.2).

[3] The following authorities were notified (the names of some of the authorities have changed since notification was provided as a result of changes in Ministerial responsibilities across Departments): Department of Agriculture, Food and the Marine; Department of Culture, Heritage, and the Gaeltacht; Department of Communications, Climate Action and Environment; Department of Housing, Planning and Local Government; Environmental Protection Agency; Cork County Council; Tipperary County Council; Kilkenny County Council; and Wexford County Council.

Table 3.1 Taking into account SEA Scoping Submissions

No.	Submission text	Response
1 SEA scoping submission from the Environmental Protection Agency		
A	We acknowledge your notice in relation to the Pre-Draft Public Consultation on the proposed Waterford City and County Development Plan 2021-2027 (the 'Plan').	Noted.
B	The EPA is one of five statutory environmental authorities under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.	Noted.
C	As a priority, we focus our efforts on reviewing and commenting on key sector plans. We again attach our guidance document '*SEA of Local Authority Land Use Plans – EPA Recommendations and Resources*'. This document is updated regularly and sets out our key recommendations for integrating environmental considerations into Local Authority land use Plans. We recommend that you take this guidance document into account in preparing the Plan and SEA.	The *'SEA of Local Authority Land Use Plans – EPA Recommendations and Resources' document* have been considered in the preparation of this SEA Scoping Report and will be kept on file for reference throughout the SEA process.
D	**Available Guidance & Resources** Our website contains various SEA resources and guidance, including: - SEA process guidance and checklists - Inventory of spatial datasets relevant to SEA - topic specific SEA guidance (including Good practice note on Cumulative Effects Assessment (EPA, 2020), Guidance on SEA Statements and Monitoring (EPA, 2020), Integrating climatic factors into SEA (EPA, 2019), Developing and Assessing Alternatives in SEA (EPA, 2015), and Integrated Biodiversity Impact Assessment (EPA, 2012) You can access these resources at: www.epa.ie/monitoringassessment/assessment/sea/	Available online EPA resources, including mapping resources, and guidance have been considered in the preparation of this report and will be considered throughout the SEA and AA processes.
E	***State of the Environment Report – Ireland's Environment 2016*** In preparing the Plan and SEA, the recommendations, key issues and challenges described within our most recent State of the Environment Report Ireland's Environment – An Assessment 2016 (EPA, 2016) should be considered, as relevant and appropriate to the Plan.	The recommendations, key issues and challenges described within Ireland's Environment will be considered in the preparation of the Plan.
F	**Transition to a low carbon climate resilient economy and society** You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, as well as relevant sectoral, regional and local adaptation plans.	The SEA will seek to ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, as well as relevant sectoral, regional and local adaptation plans.
G	***EPA SEA WebGIS Tool*** Our SEA WebGIS Tool, available through the EDEN portal (https://gis.epa.ie/EIS_SEA/), allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area. It is intended to assist in SEA screening and scoping exercises.	Available online EPA resources, including mapping resources, and guidance have been considered in the preparation of this report and will be considered throughout the SEA and AA processes.
H	**Environmental Authorities** Under the SEA Regulations, you should also consult with: • The Minister for Housing, Planning and Local Government, • The Minister for Agriculture, Food and the Marine, and the Minister for Communications, Climate Action and Environment, where it appears to you as the competent authority that the plan or programme, or modification to a plan or programme, might have significant effects on fisheries or the marine environment, • The Minister for Culture, Heritage and the Gaeltacht where it appears to you as the competent authority that the plan or programme, or modification to a plan or programme, might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, and • any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.	Notice has also been given to relevant environmental authorities as part of the SEA scoping process.

No.	Submission text	Response
2 SEA Scoping Submission from the Department of Communications, Climate Action and Environment (Geological Survey Ireland)		
A	We note, with appreciation, that the SEA Scoping document makes reference to the Copper Coast Geopark and its County Geological Sites under the section 3.4 Soil. Since the adoption of the current Waterford City and County Development Plan, Geoparks have been elevated to UNESCO Global Geoparks, thus making them equal in status to World Heritage Sites. We suggest making the reference to the Geopark and the County Geological Sites more prominent as this is a major international status to have in the County. In addition to Geoheritage data, Geological Survey Ireland provides information on all aspects of the geology of Ireland on our Map Viewer available on the GSI website www.gsi.ie. There are multiple layers of data available including Geology, Groundwater, Quaternary (landscape features), Landslides, and the Tellus data. The Tellus geophysical survey took place over Waterford since the adoption of the current CDP also and it gives information suitable for this report. Our newest map is the Physiographic Units map and this is especially designed to give information on land use. We would encourage the use of our Map Viewer when preparing the SEA, as well as looking at the section on County Waterford to see all our publications related to the County. We would be happy to assist in any sections related to the data sets we hold. Geological Survey Ireland is the national earth science agency and has datasets on Bedrock Geology, Quaternary Geology, Geological Heritage Sites, Mineral deposits, Groundwater Resources and the Irish Seabed. These comprise maps, reports and extensive databases that include mineral occurrences, bedrock/mineral exploration groundwater/site investigation boreholes, karst features, wells and springs. Please see our website for data availability.	To provide additional information on the Geopark AND County Geological Sites in the SEA Environmental Report, including mapping and the following description: United Nations Educational, Scientific and Cultural Organisation (UNESCO) Global Geoparks are single, unified geographical areas where sites and landscapes of international geological significance, managed with a holistic concept of protection, education and sustainable development. They strive to raise awareness of geodiversity and promote protection, education and tourism best practices. The Copper Coast UNESCO Global Geopark covers geological and cultural heritage of the historic 19th century metal mines, extending approx. 17 km along the coast in County Waterford. Whilst Global Geopark is not a legislative designation, the key heritage sites within a Geopark must be protected under local, regional and national legislation as appropriate. To reference relevant GIS datasets in the SEA ER and provide mapping of Groundwater Resources.

No.	Submission text	Response
3 SEA Scoping Submission from the Department of Culture, Heritage and the Gaeltacht		
A	It is recommended that all such relevant and appropriate assessment contain a detailed Cultural Heritage Section that looks to assess all aspects of each individual area within Waterford County and City and its Environs (both for terrestrial and underwater cultural heritage) and thus provide a comprehensive archaeological assessment that will then form part of a strategic assessment process to inform the DP generally and cover potential developments or works that may not be subject to the normal planning process. The potential for previously unrecorded archaeology, and particularly that from an underwater environment, is high for a coastal county such as Waterford, with the earliest city built by the sea and its rivers used as strategic routeways over the centuries. The Waterford landscape, which is primarily a maritime one, is rich in both National Monuments and recorded monuments that are subject to statutory protection under the National Monuments Acts 1930-2014. Appropriate Archaeological Impact Assessments (AIA) or Underwater Archaeological Impact Assessments (UAIA) would be particularly relevant where any Flood Risk Management Scheme is proposed or is to be extended. It is therefore recommended that the SEA and any proposed Flood Risk Management Assessments include assessment of the known and potential cultural heritage in *all areas* to be covered by the DP. This shall include the known and potential terrestrial and underwater archaeological heritage of all areas that may be the subject of proposed works in the future, including estuarine, marine, riverine and lacustrine locations, etc. An AIA/UAIA can be desk based in the first instance, with the more detailed fieldwork or underwater assessments carried out as part of the statutory planning process, a general assessment, undertaken by a suitably qualified and suitably experienced archaeologist (with underwater/maritime experience regarding the UCH), that shall ensure that future proposed works that fall under both statutory and non-statutory regulations with regard to the planning process, will be addressed. This will inform on the protection of all aspects of the cultural heritage when Waterford County Council considers works or zoning under the new DP. **Terrestrial & Underwater Archaeology:** In ***The Record of Monuments and Places*** **(RMP)** recorded archaeological sites are to be found within the areas addressed for the proposed DP. These Recorded Monuments are protected under the National Monuments (Amendment) Act 1994. The RMP is not an exhaustive list of all archaeology in existence, and in this regard DCHG would like to draw the applicant's attention to the Department's published policy in relation to the archaeological assessment of large-scale developments on sites where there are no previously recorded monuments (*Framework and Principles for the Protection of the Archaeological Heritage* – Published by Dúchas The Heritage Service). Similarly, contained within the areas covered are underwater environments, including riverine and estuarine environments. These may contain known and previously unknown underwater archaeological heritage that should be considered in any appropriate assessment to inform the DPs. Such sites can include fortifications with associated slipways, quays, etc., wrecks, fishtraps, lakeside dwellings, fording points, clapper bridges, bridges, causeways, logboats, singular sites such as rock cut platforms and steps, and of course artefactual material associated with sites or as individual cultural objects deposited in underwater environments. It is the policy of national Monuments Service of this Department that proposed developments, due to their location, size, or nature, that may have implications for the archaeological heritage should be subject to archaeological assessment. This should be included in the DP. Such developments include those that are located at or close to an archaeological monument or site, those that are extensive in terms of area (1/2 hectare or more) or length (1 kilometre or more), those that may impact the underwater environment (marine, intertidal/foreshore, riverine or lacustrine) and developments that require an Environmental Impact Statement. Archaeological heritage includes: • National Monuments in the ownership or care of the State or Local Authority; it shall be noted that these will have Consent requirements and will need to be addressed directly with the National Monuments Service in this regard. • Archaeological and Architectural monuments/sites in the Record of Monuments and Places. • Monuments in the Register of Historic Monuments • Zones of Archaeological Potential in Historic Towns • Underwater Archaeological Heritage, including Historic Wrecks • Previously unknown and unrecorded archaeological sites (including subsurface elements with no visible surface remains and potential sites underwater in rivers, lakes or the sea, that can include wharves, jetties, quays, piers, fish traps, anchorages, bridges, fording points, rockcut steps or sea caves) • Potential sites located in the vicinity of large complexes of site or monuments • Present or former wetlands, unenclosed land, rivers or lakes, reclaimed areas, or the inter-tidal zone.	To provide an extensive baseline section, a Strategic Environmental Objective, indicators and targets to address these cultural heritage issues as relevant in the SEA Environmental Report. To provide extensive plan provisions providing for the appropriate management and protection of cultural heritage.

3.3 Submissions on the Environmental Report for the Draft Plan

Various submissions were made on the Draft Plan, Proposed Material Alterations and/or associated environmental assessment documents while these documents were on public display.

Updates made on foot of submissions include:

- In the SEA Environmental Report, to add further detail to the compatibility criteria described at footnote no. 86 under Section 8.8 "Detailed Evaluation".

- In the SEA Environmental Report, to clarify that the information is sourced on Table 4.4 is from EPA's 2019 Annual Environmental Reports.4.4 "Note that as part of the Plan preparation process, a submission was received identifying periodic discharge of sewage at Tramore Pier. Measures have been integrated into the Plan as adopted related to water services, including those related to waste water."

- In the SEA Environmental Report, to replace the reference to 47 County Geological Sites to 55 County Geological Sites, including two overview sites of the Copper Coast and Comeragh Mountains.

For further information on how submissions were considered, refer to the Chief Executive's Report on submissions received on the Draft Plan and associated documents and the Chief Executive's Report on submissions received on the Proposed Material Alterations and associated documentation – both available at https://consult.waterfordcouncil.ie/.

All parts of the Plan-preparation process were informed by the SEA, AA and SFRA processes - this includes the preparation of the Chief Executive's Draft Plan, Members' Amendments to that Plan in advance of public display, Proposed Material Alterations and Further Modifications. The mitigation integrated into the final, adopted Plan includes that identified in Section 9 of this report. There were no Material Alterations to the Draft Plan, modified or otherwise, that were advised against by the SEA and adopted as part of the final Plan.

3.4 SEA documents including SEA Environmental Report

The Draft Plan and accompanying documents (including SEA Environmental Report and AA and SFRA documents) were placed on public display, having integrated various recommendations arising from the SEA, AA and SFRA processes. Responses to submissions made during the period of public display of a Draft Plan were integrated into a Chief Executive's Report and considered by Waterford City and County Council.

A number of material alterations were proposed after public display of the Draft Plan. The Proposed Material Alterations were subject to Screening for SEA and AA and a selection of Alterations were subject to SEA and Stage 2 AA.

On adoption of the Plan, the Environmental Report that had been placed on public display alongside the Draft Plan was updated to become a final Environmental Report that is consistent with the adopted Plan, taking into account all changes that were made to the original Draft Plan that was placed on public display.

Section 4 Summary of Alternatives considered

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Available reasonable alternatives for the City and County Development Plan are provided below.

4.2 Limitations in Available Alternatives

The Plan is required to be prepared by the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan. The alternatives available for the Plan are limited by the provisions of higher-level planning objectives, including those of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Region and associated Waterford Metropolitan Area Strategic Plan (MASP). These documents set out various requirements for the content of the Plan including on topics such as settlement typology, land use zoning and the sustainable development of rural areas.

4.3 Assessment of Alternatives for an Ecosystem[4] Services Approach to the Plan

Alternative A: "A Plan that takes a more focused Ecosystems Services Approach" would integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Principles that would be integrated throughout the Plan, in a coordinated and comprehensive manner, would include:

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function;
- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation or recreation, culture and quality of life; and
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

This would mean that there would be:

- An increased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues, such as the management of air quality, noise pollution, light pollution, pollination, flood risk, water bodies and river basins and natural resources supporting energy production and recreation; and
- A decreased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Alternative B: "A Plan that does the basics but takes a less focused Ecosystems Services Approach" would not integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

A less-interventionist approach to Ecosystems Services would provide less focus and attention to Ecosystem Services than would be the case under Alternative A and would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

[4] Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing

As has been the case over previous plan periods, many natural capital and ecosystem service issues would be integrated into individual Plan Policy Objectives and into decision making at lower tiers of plan preparation and development management. However, this approach would be less coordinated and comprehensive than would be the case under Alternative A.

This would mean that there would be:

- A decreased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues; and
- An increased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Selected Alternative: Alternative A.

4.4 Assessment of Alternatives for an infrastructure led approach to the Plan

In terms of infrastructure led approach to the plan, two alternatives can be considered:

- **Alternative A:** A Plan that takes a strict infrastructure led approach.

  It is essential that development under the Plan is adequately served by infrastructure. An infrastructure led approach would support achieving the objectives of the NPF and RSES and associated Waterford MASP. An infrastructure led approach would provide a strategy for sustainable compact growth in all settlements, contribute to carbon reduction targets and achieve environmental enhancement and economic growth.

  This alternative ensures that the sustainable development of settlements occurs, with new development accompanied by adequate and appropriate infrastructure.

  This alternative would also facilitate the development of a concentric Waterford City, both north and south of the River Suir, and other key enablers for the MASP area.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the most and would provide the highest levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be more likely to be successful, and residual adverse effects would be least likely. This approach would also contribute towards compliance with the objectives of the RSES and NPF.

- **Alternative B**: A Plan that does not takes a less strict infrastructure led approach.

  This alternative considers existing and future demand and capacity in infrastructure but the allocation of growth and associated policy responses are looser than under Alternative A. Decisions relating to infrastructure assessment are left to project level wherever this is possibly.

  This alternative would benefit the efficient provision of infrastructure and the environment (including water, human health, ecology and air/climate) the least and would provide reduced levels of certainty and coherence to both decision makers and stakeholders, including residents and potential developers. Applications for developments would be less likely to be successful, and residual adverse effects would be more likely. Taking a less strict infrastructure led approach would not contribute towards achieving policy objectives of the RSES or NPF to the same degree as Alternative A.

Selected Alternative: Alternative A.

4.5 Assessment of Alternatives for Rural Waterford

(i) Rural Areas under Strong Urban Influence/Pressure

- **(i) Alternative A:** Designate Rural Areas under Strong Urban Influence/ Pressure

  The methodology behind Alternative A, would build on the current policy framework set out in the Waterford County Development Plan 2011 – 2017, and would be consistent with the strategy and policy objectives of the NPF and RSES, and Section 28 Ministerial guidelines.

  Alternative A provides for a robust and transparent policy approach to manage rural housing.

  Restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres.

  Single dwellings in rural areas would be facilitated as appropriate and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

- **(i) Alternative B:** Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.

  In terms of aligning the SEA, AA, SFRA and the Plan Policy Objectives, pursuing Alternative B would raise significant challenges in assessing the full impacts and effects of the alternative strategy approach on the environment, particularly water quality, biodiversity, loss of productive capacity, road capacity and carbon footprint. Furthermore, such an Alternative would be contrary to the NPF, RSES and Ministerial guidelines.

  Alternative B Provides a vague and unclear policy approach to rural housing and risks facilitating a significant increase in urban-generated one-off housing in the open countryside which will undermine the role of small towns and villages and have consequences for the environment.

  Not restricting the development of single dwellings in rural areas that are under strong urban influence/pressure would adversely impact upon the protection and management of the environment and sustainable development. The absence of restrictions would result in increased levels of greenfield development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres.

  Urban generated housing development would occur within rural areas outside of established settlements. This alternative would result in low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

  It is considered that Alternative A is the most appropriate means of ensuring that a sustainable approach to rural housing need and demand can be met, in a manner that considers the requirements of communities, and those of the NPF and RSES.

Selected Alternative: Alternative A.

(ii) Villages/Clusters/Nodes and Serviced Sites

- **(ii) Alternative A:** Provide focus to and targeted policies/objectives for rural villages, clusters and nodes to act as a viable alternative to one-off housing in the open countryside.

  Alternative A, by providing focus to and targeted policy objectives for the rural villages, clusters and nodes would facilitate a viable alternative to one-off housing in the open countryside. Development within these settlements would be more likely to be served by infrastructure (including water services infrastructure) and more likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Development would be required to be subject to siting, design, protection of residential amenities and normal development management criteria, subject to the satisfactory provision of infrastructure and services and in keeping with the character of the settlement.

  The identification of rural villages, clusters and nodes to facilitate a choice in providing for the housing and community needs of rural areas is an important element of supporting a choice and mix of housing within Waterford. This alternative would facilitate this by way of identifying such locations, and setting out development boundaries within which development may take place.

- **(ii) Alternative B:** Rural villages, clusters and nodes are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside

  Alternative B, by not providing a focus to and targeted policy objectives for rural villages, clusters and nodes would be less likely to provide a viable alternative to one-off housing in the open countryside. Development within the open countryside would be less likely to be served by infrastructure (including water services infrastructure) and less likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Alternative B would the least sustainable of these two alternatives and would be most harmful to the environment.

  Identifying areas within existing villages and nodes to support clustering of residential development across rural Waterford is an important element of providing choice in the housing market outside of urban settlements, in a manner consistent, in principle, with the NPF and RSES. Alternative A is therefore preferred.

Selected Alternative: Alternative A.

4.6 Assessment of Alternatives for Densities

Alternatives identified relating to densities comprise:

Alternative A: Application of a single standard residential density across all settlements.

The application of a low net singular residential density across the City and County would have the potential to push new development towards more environmentally sensitive lands that are less well-serviced and less well-connected, resulting in unnecessary potentially significant adverse effects on all environmental components.

The application of a singular high net residential density could result in a potential mis-alignment between the supply of zoned land to meet the projected demand for new housing. This could result in a misalignment between new development and essential services provision with associated potential for adverse effects on environmental components.

Alternative B: The Application of different densities at different locations, as appropriate, would provide for the most sustainable development, which would contribute towards environmental protection and management the most.

> Higher densities would be provided where sustainable transport mode opportunities are available and lower densities would be provided where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network. This approach would contribute towards national and regional strategic outcomes including the efficient use of land, compact growth and the transition towards a low carbon and more climate resilient society.
>
> Alternative B would help to ensure compact, sustainable development within and adjacent to the existing built-up footprint and would conflict with the protection and management of environmental components the least. Alignment between new development and essential services provision would be most likely under Alternative B.

Taking cognisance of the range and diversity of settlements across the functional area of the development plan, and the settlement typology/ hierarchy, it is considered that Alternative B is the most sustainable option for delivering on the principles of compact growth, while facilitating placemaking, and the development of diverse rural areas a range of options for the housing market in terms of house type mix, tenure, design and cost, and delivering the Housing Strategy. Alternative B takes into account the objectives of the higher-level NPF and Southern RSES, and the need to comply with the densities set out in Ministerial Guidelines, including those related to *Sustainable Residential Development in Urban Areas (2009)* and *Urban Development and Building Heights (2018)*.

Selected Alternative: Alternative B.

4.7 Assessment of Alternatives for Land Use Zoning

Alternatives for Land Use Zoning are assessed on Table 4.1.

Table 4.1 Assessment of Alternatives against Strategic Environmental Objectives

Town	Alternative (selected alternatives in **bold**)	Commentary
Waterford City & Suburbs	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the City and suburbs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the City and suburbs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Dungarvan/ Ballinroad	Alternative A: More Compact **see note below**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise

Town	Alternative (selected alternatives in **bold**)	Commentary
		and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Clonmel Environs	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of Clonmel Environs, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Clonmel Environs and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Tramore	Alternative A: More Compact **see note below**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact **see note below**	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Dunmore East	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Portlaw	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Lismore	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

Town	Alternative (selected alternatives in **bold**)	Commentary
Gaeltacht na nDéise	**Alternative A: More Compact**	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the Gaeltacht na nDéise, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components.
	Alternative B: Less Compact	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the Gaeltacht na nDéise and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

4.8 Reasons for Selecting Chosen Alternatives

Selected alternatives for the Plan from each of the various types of alternatives that emerged from the planning/SEA process are indicated above.

These alternatives have been incorporated into the Plan having regard to both:

1. The environmental effects which are identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects

Section 5 Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Plan.

Monitoring can both demonstrate the positive effects facilitated by the Plan and can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

The occurrence of significant adverse environmental effects not predicted and mitigated by this assessment, which are directly attributable to the implementation of the Plan, would necessitate consideration of these effects in the context of the Plan and potential remediation action(s) and/or review of part(s) of the Plan.

5.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in the main SEA Environmental Report and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions. Given the position of the Development Plan in the land use planning hierarchy beneath RSES, the measures identified in the RSES SEAs, including the Southern RSES SEA, have been used – as they are or having been slightly modified – in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 5.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

Monitoring is an ongoing process and the programme allows for flexibility and the further refinement of indicators and targets. The Monitoring Programme may be updated to deal with specific environmental issues – including unforeseen effects – as they arise.

5.3 Sources

The Plan forms part of the wider land use planning framework comprising a hierarchy of policies, plans, programmes, etc. This wider framework, including the National Planning Framework and the Southern RSES, is subject to its own SEA (and associated monitoring) requirements. At lower tiers of the hierarchy, Local Area Plans and individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme the Council will take into account this hierarchy of planning and environmental monitoring.

Sources for indicators may include existing monitoring databases (including those maintained by planning authorities and national/regional government departments and agencies) and the output of lower-tier environmental assessment and decision making (including a review of project approvals granted and associated documents and the output of any EIA monitoring programmes).

5.4 Reporting and Responsibility

As provided by Policy Objective NH03 "Monitoring and Management", the Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out in the SEA Environmental Report and Statement. This will include the preparation of stand-alone SEA Monitoring Reports:

1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the Development Plan; and

2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan.

Reporting will seek to address the indicators set out on Table 5.1. The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports (reports will be made available to the public) and, if necessary, the carrying out of remedial action.

Table 5.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). [5] • DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years) [6] • Consultations with the NPWS [7]	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
	• Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, County Heritage Plan 2017-2022	• Internal review of local land use plans	• Review internal systems
	• SEAs and AAs as relevant for new Council policies, plans, programmes etc.	• Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.	• Internal monitoring of preparation of local land use plans	• Review internal systems
	• Status of water quality in the City and County's water bodies	• Included under Water below	• Included under Water below	• Included under Water below
	• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 9 "Climate Action, Biodiversity and Environment"	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
Population and Human Health	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail"	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy, Tourism, Education and Retail" • By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)	• Internal review of progress on implementing Plan objectives • Consultations with DECC	• Review internal systems • Consultations with DECC
	• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	• Consultations with the Health Service Executive and EPA	• Consultations with the Health Service Executive and EPA
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
	• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping	• Internal review of local land use plans	• Review internal systems

[5] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[6] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

[7] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

Environmental Component	Indicators	Targets	Sources	Remedial Action
Soil (and Land)	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Maintain built surface cover nationally to below the EU average of 4% • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels across the City and County	• EPA Geoportal • Compilation of greenfield and brownfield development for the DHLGH • AA/Screening for AA for each application	• Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
	• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements	• Internal review of grants of permission where contaminated material must be disposed of	• Consultations with the EPA and Development Management
	• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	• Internal monitoring of grants of permission	• Review internal systems
Water	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan	• EPA Monitoring Programme for WFD compliance	• Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
	• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• Internal monitoring of likely significant environmental effects of grants of permission	• Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	• Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health	• Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Irish Water • DHLGH in conjunction with Local Authorities	• Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.

Environmental Component	Indicators	Targets	Sources	Remedial Action
Air	• Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% • NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels • Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter	• CSO data • Data from the National Travel Survey • EPA Air Quality Monitoring • Consultations with Department of Transport and Department of Environment, Climate and Communications	• Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
	• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	• Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024 • EPA Annual National Greenhouse Gas Emissions Inventory reporting • Climate Action Regional Office • Consultations with DECC	• Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
	• Share of renewable energy in transport	• Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan		
	• Carbon dioxide (CO_2) emissions across the electricity generation, built environment and transport sectors	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors		
	• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating		
	• Proportion of journeys made by private fossil fuel-based car compared to 2016 levels	• Decrease in the proportion of journeys made by residents of the City and County using private fossil fuel-based car compared to 2016 levels	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
	• Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• CSO data • Monitoring of Waterford City and County Council's Climate Change Adaptation Strategy 2019-2024	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
Cultural Heritage	• Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals visitor pressure is causing negative effects on key tourist features along these routes, the Council will work with Regional Assembly, Fáilte Ireland and other stakeholders to address the pressures through additional mitigation tailored to the plans.
	• Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Consultation with DHLGH	
Landscape	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation

Appendix 20

Habitats Directive Natura Impact Report

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Waterford City and County Development Plan 2022-2028

Appropriate Assessment

Natura Impact Report

June 7th 2022

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1 Introduction

1.1 The European Habitats Directive and requirement for Appropriate Assessment

The aim of the European Habitats Directive (Council Directive 92/43/EEC on the conservation of wild habitats and of wild fauna and flora) was to create a network of protected wildlife sites in Europe, maintained at a favourable conservation status[1]. Each member state was required to designate their most important natural areas as Special Areas of Conservation. The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for damaging a site. The network of sites is referred to as NATURA 2000 and includes SACs (Special Areas of Conservation) for protected habitats and species and SPAs (Special Protection Areas) for protected bird habitats. Wild bird species in SPAs and habitats and species listed on Annexes I and II of the Habitats Directive in SACs in which they are designated features have full European protection. Species listed on Annex IV of the Habitats Directive are strictly protected wherever they occur, whether inside or outside the Natura 2000 network. This protection is afforded to animal and plant species by Sections 51 and 52 of the Habitats Regulations. Annex I habitats outside of SACs are still considered to be of national and international importance and, under Article 27(4)(b) of the Habitats Regulations, public authorities have a duty to strive to avoid the pollution or deterioration of Annex I habitats and habitats integral to the functioning of SPAs.

The European Habitats Directive (Council of the European Communities 1992) was transposed into Irish legislation by the European Communities (Natural Habitats) Regulations 1997 and amended in 1998, 2005 and 2011. The (Natural Habitats) Regulations 2011 addressed transposition issues raised in judgements of the ECJ against Ireland in 2008 and along with provisions of the Planning and Development Act 2000 (as amended) (Part XAB), clarified the obligations of planning authorities under the Birds and Habitats Directives.

Article 6 of the Habitats Directive provides a strict assessment procedure for any plan or project not directly connected with or necessary to the management of a designated European site but which has the potential to have implications for the site in view of the site's conservation objectives. The Waterford City and County Development Plan 2022-2027, therefore, falls under the remit of Article 6.

The Regulations and the Planning and Development Act 2010 (as amended) require planning authorities when considering an application for a development that is likely to have a significant effect on a SAC/SPA, to ensure that an appropriate assessment of the implications of the development for the conservation status of the site is undertaken. Similarly land use plans are required to be subject to an appropriate assessment screening as set out in Section

[1] The conservation status of a species can be taken as "favourable" when population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future and there is and will continue to be a sufficiently large habitat to maintain its populations on a long-term basis. Article 1 (i) of the Habitats Directive 92/43/EEC

The conservation status of a habitat can be taken as "favourable" when its natural range and area it covers within that range is stable or increasing and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

177 U of the Act. “The competent authority shall determine that an appropriate assessment of a draft land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.”

1.2 Appropriate Assessment: Purpose and Process

The Department of Environment, Heritage and Local Government published *Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities* in December 2009. This guidance document sets out the steps and procedures to be followed in undertaking an appropriate assessment of statutory land use plans within the framework of current planning legislation.

Section 4.10 of the Guidance states “ It is the competent authority’s responsibility to carry out the appropriate assessment of the plan. The Statement of AA of plans should be based on best available information, objective criteria, best scientific knowledge and expert judgment in relation to its impact on the integrity of a Natura 2000 site with respect to the conservation objectives of the site and to its structure and function. There should be no reasonable scientific doubt as to the absence of effects.”

It is recommended that the Department be consulted by a planning authority at every stage of the plan making process (i.e. at the pre-draft, draft and proposed amendments stages). The Department’s comments should be taken into account by the planning authority before the plan is adopted. In each iteration of the plan, earlier observations from the Department should be carried forward.

Section 4.8 of the guidance states “The key to deciding if an appropriate assessment of a plan would be required is determined by an assessment of whether the plan and its policies and objectives are likely to have a significant effect on a Natura 2000 site. The decision will be influenced by the nature and extent of the development likely to be proposed in the plan, and the plan’s area *in situ, ex situ* and in combination relationship to adjoining the Natura 2000 sites and the wider Natura 2000 network.

When screening the plan and its policies and objectives there are two possible outcomes:

The plan poses no risk of a significant effect and as such requires no further assessment; and the plan has potential to have a significant effect (or this is uncertain) and AA of the plan is necessary.

Screening can be used to establish which policies and objectives have potential to have significant effects, and therefore the ones that require further attention at the AA stage.

The European Commission methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive sets out the four stages for the assessment.[2]

Stage 1. Screening — the process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant;

Stage 2. Appropriate assessment — the consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. The output of the AA is a Natura Impact Report;

Stage 3. Assessment of alternative solutions — the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

Stage 4. Assessment where no alternative solutions exist and where adverse impacts remain — an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

1.3. Procedure for stage one screening

This report consists of Natura Impact Report following a screening for Habitats Directive Assessment of the Development Plan for Waterford City and County 2022-2028.

The screening stage examined the likely effects of the Waterford City and County Development Plan on Natura 2000 sites in Waterford and within a 15km radius of the City and County and considers whether it could be objectively concluded that these sites would not be significantly impacted by policies, objectives and zonings in the Plan. This assessment comprised four steps:-

Step 1: determining whether the project or plan is directly connected with or necessary to the management of the site: -

The Waterford City and County Development Plan 2022-2028 is a spatial planning framework for Waterford City and County and is not directly connected to the management of any Natura 2000 sites.

Step 2: describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site;

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[2] *Assessment of plans and projects significantly affecting Natura 200 sites- methodological guidance on the provisions of Article 6(3) and 6 (4) of the Habitats Directive 92/43/EEC.*
Managing Natura 2000 sites The provisions of Article 6 of the Habitats Directive 92/43/EEC.
European Commission (2018)

The objective of the Waterford City and County Development Plan 2022-2028 is to provide a strategic planning framework for the development of Waterford City and County. The Plan is intended to be a framework for local authority development and will address issues such as settlement, transportation, economic development, placemaking, heritage, conservation, climate action and environmental protection.

With a total population in excess of 116,000 (Census 2016), Waterford City and County encompasses 2.3% of the state population. One of the key assets of the City and County is its diversity of landscapes from uplands to woodlands, rivers and the coast providing for a strong tourism base. Waterford is characterised by two significant waterway corridors, the River Blackwater and River Suir and a number of other smaller rivers. The county has 147km of coastline and mountain ranges in the Comeraghs and Knockmealdowns. Waterford contains several sites designated for their nature conservation value especially along the coast. There are 14 Natura 2000 sites within the County comprising six Special Protection Areas and nine Special Areas of Conservation and 3 sites within 15km of the Waterford boundary with other counties.

<u>Step 3:</u> Identifying the potential effects on the Natura 2000 site;

The DoEHLG Guidance on Appropriate Assessment on Plans and Projects in Ireland (December 2009) states that all Natura 2000 sites within or adjacent the City & County must be mapped and tabulated, and site integrity and site conditions necessary to support the site integrity must be indicated.

The information presented in Table 1 details the Natura 2000 site within Waterford City & County. Table 2 details sites outside the Plan area and within a 15km buffer of the City & County .

The Natura 2000 sites are listed by designation; Special Areas of Conservation / Special Protection Areas. The following information is listed for each Natura 2000 site:

- Site code
- Site name
- Qualifying interests
- Conservation objectives
- Threats to site integrity

<u>Step 4:</u> Assessing the significance of any effects on the Natura 2000 site.

The screening stage involves application of the precautionary principle proportional to the policy/objective and the Natura 2000 site in question. Objectives and policies from the Waterford City & County Development Plan and their impact on Natura sites have been screened to ascertain if the policies / objectives are likely to have significant effects on any Natura 2000 sites, using the following framework.

- Development Plan zoning/policy/objective

- Natura 2000 site
- Qualifying interests
- Threats to site integrity
- Potential impacts from the Waterford City & County Development Plan 2013-2019
- Risk of significant impact (Y/N)
- Potential 'in combination' impacts
- Risk of significant impacts (Y/N)
- Avoidance and (then) mitigation measures
- Action required: Policy change needed / rewording / additional CDP objective

Where no significant effects are found, then policies or objectives are accepted. If all the policies / objectives/zonings in the Waterford City and County Development Plan are found not to have a significant effect on any Natura 2000 site no further assessment is required. Where a policy / objective as worded does have potential for a significant effect, a Stage 2 Appropriate Assessment and preparation of a Natura Impact Report is required.

The following guidance documents informed the assessment methodology:

EC (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission.

EC (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. European Commission, Brussels.

DEHLG (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin.

NPWS (2010a) *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular Letter NPWS 1/10 & PSSP 2/10. Department of the Environment, Heritage and Local Government, Dublin.

1.4 Data Sources

National Parks and Wildlife Service published a series of Conservation Objectives for the range of Natura 2000 sites in Waterford which set out targets and indicators for maintenance or restoration of the favourable conservation status of the qualifying habitats and species of the Natura 2000 Network.

The overriding objective of the Habitats Directive is to ensure that the habitats and species covered achieve ‘favourable conservation status’ and that their long-term survival is secured across their entire natural range within the EU (EU Commission, 2010). In its broadest sense, favourable conservation status means that an ecological feature is being maintained in a satisfactory condition, and that this status is likely to continue into the future.

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

• the population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and

• the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and

• there is, and will probably continue to be, a sufficiently large habitat to maintain its populations

For coastal SPA sites, conservation objectives are defined for attributes relating to bird species populations, and for attributes related to the maintenance and protection of habitats that support them. These attributes are:

• Population trend;
• Population distribution;
• Habitat range and area (extent).
Appendix 1 details the Conservation Objections for the Natura 2000 Network in Waterford.

Some sites within the Natura 2000 Network were the subject of Conservation Management Plans prepared by NPWS which although were not all published provide useful baseline information on habitat mapping and habitat management issues pertaining to those sites. Plans were prepared for Ardmore Head, Tramore Dunes and Back Strand and the Comeragh Mountains.

A number of habitat and species specific surveys commissioned by NPWS contain valuable habitat data and condition status assessments relevant to a number of sites within the Natura 2000 Network in Waterford. These include;

Conservation Objectives Supporting Documents for Waterford's Natura2000 Network
National Survey of Native Woodland 2003-2008
National Survey of Upland Habitats (Pilot Survey Phase, 2009-2010) Site Report No. 3: Comeragh Mountains cSAC
Saltmarsh Monitoring Project 2007-2008
The Status of EU Protected Habitats and Species in Ireland 2019
Waterford Chough Survey 2008
Widlife Manual 78 The Irish Semi-natural Grasslands Survey 2007-2012
Widlife Manual 105 Calaminarian Grassland Monitoring 2018
Wildlife Manuals 108 Saltmarsh Monitoring Project 2017-2018

Other reports that contain valuable baseline data and analysis of trends in conservation status include;

2. Overview of Waterford City and County Development Plan and the Receiving Environment

2.1 Overview of Waterford City and County Development Plan

The Waterford City and County Development Plan is a land use plan and overall strategy for the proper planning and sustainable development of Waterford City and County over the six year period 2022-2028. The Development Plan is structured as follows;
Volume 1- Written Statement detailing Context and Strategy, policies for Waterford City and County in relation to; Economy, Education and Retail, Transport and Mobility, Utilities and Infrastructure, Energy and Communication, Housing and Sustainable Communities, Placemaking, Climate Action, Biodiversity and Environment, Landscape, Coast, Marine and Green Infrastructure and Heritage.
Volume 2 contains appendices detailing protected sites, landscape and seascape character assessment, flood risk assessment, zoning and settlement maps, SEA Environmental Report and Natura Impact Report.

2.2 Waterford City and County Development Plan Themes and Objectives

The vision of the Plan is that by 2028 Waterford City and County will have continued to grow and will be evolving to become an even more attractive, prosperous, resilient and sustainable place anchored by Waterford City as a Living and Learning City and City Region driver. It will be an excellent place to live, visit and do business. It will be recognised for enterprise and inventiveness in the knowledge economy and high-value markets with a particular focus on biopharmaceuticals, technological innovation, tourism, food and drink, fishing and the primary industries and the City and County's unique built, historic, cultural and natural environment, which will be protected and, where appropriate , enhanced as a key asset in underpinning a high quality of life and place. Decision makers will have acted confidently and taken the courageous decisions necessary to further develop a robust and diversified economy. The council will have taken a proactive approach towards development that promotes and facilitates appropriate development that nonetheless; ensures the sustainable use of natural resources, can deal with climate change and creates a more, open inclusive society.

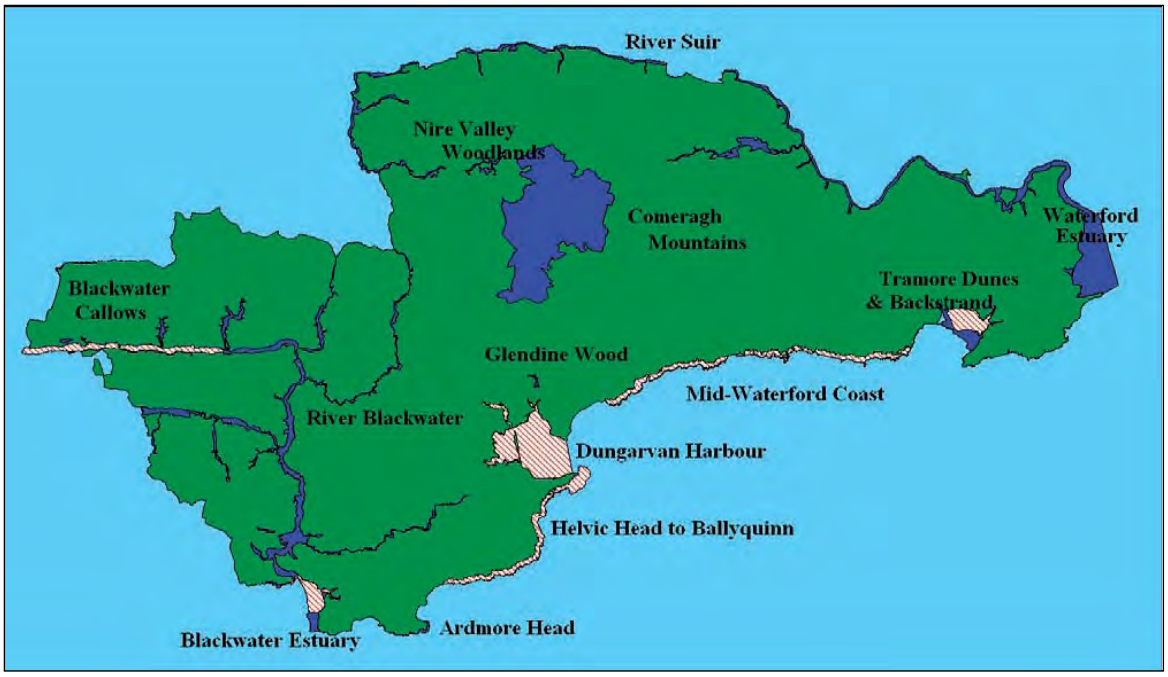
The Core Strategy Strategic Aims of the Plan are as follows;

1. Based on the population /employment targets and policy objectives of the NPF, RSES & MASP, provide a local policy framework to support development where it is consistent with the principles of sustainable development, and which is applied through planning decisions which are clear, consistent, robust and risk adverse.

2. Identify investment priorities to deliver and support the settlement strategy and hierarchy, founded on the principle of infrastructure-led development.
3. Counteract imbalance in housing type, tenure and location both within settlements, between settlements and across broader rural areas in order to meet the needs of the people of Waterford, mitigating current residential leakage and unsustainable travel patterns.
4. To require where appropriate all plans and projects to comply with the requirements of the SEA, Water Framework, Flood and Habitats Directives. To protect the integrity of all Natura 2000 sites, pNHAs and sites of Local Biodiversity Importance.
5. To ensure the policies and objectives of the Development Plan demonstrate consistency with national and regional policy objectives set out in the NPF, RSES and MASP.
6. To implement a tiered and infrastructure-led approach to the development of new residential land and engage in active land management to bring forward opportunities for redevelopment where feasible.
7. Develop key infrastructure required to develop the concentric city model for Waterford City, consistent with the NPF, RSES and MASP and founded on the assimilation of PLUTS and WMATS policy objectives.
8. Implement the Waterford City and County Climate Adaptation Strategy 2019 and promote a climate resilient pattern of development and land uses which assist in achieving national climate change mitigation and adaptation targets.
9. To protect and strengthen the retail primacy of Waterford City within the Southern Region.
10. To protect and enhance the vibrancy and vitality of urban and rural centres and their mixed use functions/capacity as community hubs.
11. To enhance the sense of place throughout settlements in Waterford and deliver 10 minute neighbourhoods through enhanced pedestrian and cycle permeability and mixed land use planning.
12. To protect existing employment and promote new employment areas at strategic locations and district and local services centres across Waterford county.
13. Continue to encourage and promote the sustainable development of a range of quality tourism facilities, attractions and accommodation types across Waterford.

2.3 Description of Natura 2000 Network

Waterford supports a wide range of habitats and species including Blanket Bog, Dry and Wet Heath, Rivers with Floating and Tall Herb Vegetation, Coastal Grassland, Sand Dunes, Salt Marsh and Mudflats, Alluvial and Oak Woodlands. The value of these habitats is recognised in the high number of sites in the county designated by the State for nature conservation. There are nine SACs and six SPAs designated in County Waterford. These sites must be managed to ensure maintenance or restoration of their favourable conservation status.



Map 1. Special Areas of Conservation (in blue) and Special Protections Areas (red hatching) in Waterford.

Table 1: Natura 2000 sites within Waterford City and County

Site code **Site name**	**Qualifying interests**	**National Conservation Status 2019**[3]	**Conservation Objectives**
0002137 Lower River Suir	Alluvial Wet Woodland Yew Wood, Floating River Vegetation, Atlantic Salt Meadows, Mediterranean Salt Meadows Old Oak Wood Eutrophic Tall Herbs Sea Lamprey, Brook Lamprey, River Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad,	Bad (declining) Bad (stable) Inadequate (declining) Inadequate (declining) Bad (declining) Bad (declining) Bad (stable) Favourable (stable) Unknown Bad (declining) Bad (declining) Bad (stable) Inadequate (stable) Favourable (improving)	To restore the favourable conservation condition of Alluvial Woodland To restore the favourable conservation condition of Yew Woods To maintain the favourable conservation condition of Floating River Vegetation To restore the favourable conservation condition of Atlantic Salt Meadows To restore the favourable conservation condition of Mediterranean Salt Meadows To restore the favourable conservation condition of Old Oak Woodland To maintain the favourable conservation condition of Eutrophic Tall Herbs To restore the favourable conservation condition of Sea Lamprey To restore the favourable conservation condition of Brook Lamprey To restore the favourable conservation condition of

[3] The Status of EU Protected Habitats and Species in Ireland 2019 (Department of Culture, Heritage and the Gaeltacht)

	Atlantic Salmon, Otter		River Lamprey To restore the favourable conservation condition of Freshwater Pearl Mussel To maintain the favourable conservation condition of Crayfish[4] To restore the favourable conservation condition of Twaite Shad To restore the favourable conservation condition of Salmon To maintain the favourable conservation condition of Otter In accordance with attributes and targets set out in Conservation Objectives Series (NPWS 2017)
002123 Ardmore Head	Dry coastal heath Vegetated sea cliffs.	Bad (stable) Inadequate (stable)	To maintain the favourable conservation condition of Vegetated sea cliffs To maintain the favourable conservation condition of Dry Heath
000072 Blackwater River	Estuary Mudflats	Inadequate (declining) Inadequate (declining) Inadequate (stable)	To maintain the favourable conservation condition of Estuary To maintain the favourable conservation condition of

[4] Note the crayfish population of the River Suir was decimated by the Crayfish Plague in 2018

(Cork/Waterford)	Shingle Banks, Salicornia mudflats Atlantic Salt Meadows Mediterranean Salt Meadows Floating River Vegetation Old Oak Woods Alluvial Woodland Yew Woodland Freshwater Pearl Mussel White-clawed Crayfish Twaite Shad Sea Lamprey, Brook Lamprey, River Lamprey, Salmon Otter Killarney Fern	Favourable (stable) Inadequate (declining) Inadequate (declining) Inadequate (declining) Bad (declining) Bad (declining) Bad (stable) Bad (declining) Bad (declining) Bad (stable) Bad (stable) Favourable (stable) Unknown Inadequate (stable) Favourable (improving) Favourable (stable)	mudflats and sandflats To maintain the favourable conservation condition of perennial vegetation of stony banks To maintain the favourable conservation condition of salicornia mudflats To restore the favourable conservation condition of Atlantic Salt Meadows To maintain the favourable conservation condition of Mediterranean Salt Meadows To maintain the favourable conservation condition of Floating River Vegetation To restore the favourable conservation condition of Old Oak Woodland To restore the favourable conservation condition of Alluvial Woodland Objective under review by NPWS To restore the favourable conservation condition of Freshwater Pearl Mussel To maintain the favourable conservation condition of Crayfish[5] To restore the favourable conservation condition of

[5] Note the crayfish population of the River Suir was decimated by the Crayfish Plague in 2018

			Twaite Shad To restore the favourable conservation condition of Sea Lamprey To maintain the favourable conservation condition of Brook Lamprey To maintain the favourable conservation condition of River Lamprey To maintain the favourable conservation condition of Salmon To restore the favourable conservation condition of Otter To maintain the favourable conservation condition of Killarney Fern In accordance with attributes and targets set out in Conservation Objectives Series (NPWS 2017)
001952 Comeragh Mountains	Blanket bog Dry Heath Wet Heath Alpine Heath Rocky Slopes	Bad (declining) Bad (stable) Bad (declining) Bad (improving) Inadequate (stable)	To maintain or restore the favourable conservation condition of the Annex I Habitat(s) and/or Annex II species for which the cSAC has been selected.

	Oligotrophic Lakes Floating River Vegetation Slender Green Feather Moss	Inadequate (stable) Inadequate (declining) Favourable (stable)	
002324 Glendine Wood	Semi-natural Woodland with rare assemblages of Ground Flora. Killarney Fern	Favourable (stable)	To maintain or restore the favourable conservation condition of the Annex I Habitat(s) and/or Annex II species for which the cSAC has been selected.
000665 Helvick Head	Vegetated Sea Cliffs Dry Heath.	Inadequate (stable) Bad (Stable)	To maintain the favourable conservation condition of the vegetated sea cliffs in Helvic Head Sac defined in the Conservation Objectives Series (NPWS 2016) To maintain the favourable conservation condition of Dry Heath in Helvic Head SAC defined in the Conservation Objectives Series (NPWS 2016)
000668 Nier Valley Woods	Old Oak Woodlands Dry Heath	Bad (Declining) Bad (Stable)	To maintain or restore the favourable conservation condition of the Annex I Habitat(s) and/or Annex II species for which the cSAC has been selected. .
002162 River Nore and	Estuary Mudflats & Sandflats	Inadequate (declining) Inadequate (declining)	To maintain the favourable conservation condition of Estuary To maintain the favourable conservation condition of

River Barrow (Waterford Estuary)	Reefs Salicornia Mudflats Atlantic Salt Meadows Mediterranean Salt Meadows Floating River Vegetation Dry Heath Tall Herb River Vegetation Petrifying Springs Old Oak Woods Alluvial Woods White-clawed Crayfish Nore Freshwater Pearl Mussel Whorl Snail Twaite Shad Sea Lamprey, Brook Lamprey, River Lamprey,	Inadequate (stable) Favourable (stable) Inadequate (declining) Inadequate (declining) Inadequate (declining) Bad (stable) Bad (declining) Inadequate (declining) Bad (declining) Bad (declining) Bad (declining) Bad (declining) Inadequate (declining) Bad (declining) Bad (stable) Favourable (stable) Unknown Inadequate (stable)	mudflats and sandflats To maintain the favourable conservation condition of salicornia mudflats To restore the favourable conservation condition of Atlantic Salt Meadows To restore the favourable conservation condition of Mediterranean Salt Meadows To maintain the favourable conservation condition of Floating River Vegetation To maintain the favourable conservation condition of Dry Heath To maintain the favourable conservation condition of Tall Herb River Vegetation To maintain the favourable conservation condition of Petrifying Springs To restore the favourable conservation condition of Old Oak woods To restore the favourable conservation condition of Alluvial woods To maintain the favourable conservation condition of Crayfish To restore the favourable conservation condition of Nore Pearl Mussel

	Salmon Otter Killarney Fern	Favourable (improving) Favourable (stable)	To maintain the favourable conservation condition of Whorl Snail. To restore the favourable conservation condition of Twaite Shad To restore the favourable conservation condition of Sea Lamprey To restore the favourable conservation condition of Brook Lamprey To restore the favourable conservation condition of River Lamprey To restore the favourable conservation condition of Salmon To restore the favourable conservation condition of Otter To maintain the favourable conservation condition of Killarney Fern In accordance with attributes and targets set out in Conservation Objectives Series (NPWS 2011)
00671 Tramore Dunes and	Mudflats and sandflats Drift lines Vegetated Shingle	Inadequate (declining) Inadequate (declining) Inadequate (stable)	To maintain the favourable conservation condition of mudflats and sandflats To maintain the favourable conservation condition of annual vegetation of drift lines To maintain the favourable conservation condition of

Back Strand	Salicornia colonising mud and sand Atlantic Salt Meadows Mediterranean Salt Meadows Embryonic Dunes White Dunes Fixed Dunes.	Favourable (stable) Inadequate (declining) Inadequate (declining) Inadequate (stable) Inadequate (stable) Bad (declining)	perennial vegetation of stony banks To maintain the favourable conservation condition of Salicornia colonising mud and sandflats To maintain the favourable conservation condition of Atlantic Salt Meadows To maintain the favourable conservation condition of Mediterranean Salt Meadows To maintain the favourable conservation condition of Embryonic Shifting Dunes To maintain the favourable conservation condition of Marram/ White Dunes To maintain the favourable conservation condition of Fixed Dunes In accordance with attributes and targets set out in Conservation Objectives Series (NPWS 2013)
Site code **Site name**	**Qualifying interests**		
Tramore Backstrand	Brent Geese, Golden Plover, Grey Plover, Black-tailed Godwit, Bar-tailed Godwit, Lapwing, Dunlin, Sanderling		To maintain the bird species of special conservation interest for which this SPA has been listed at favourable conservation status
Dungarvan Bay	Brent Goose, Black-tailed Godwit , Bar-tailed Godwit, of international importance Nationally important numbers of Shelduck, Wigeon, Red-breasted		To maintain the bird species of special conservation interest for which this SPA has been listed at favourable conservation status

	Merganser, Grey Plover, Golden Plover, Lapwing, Knot, Sanderling, Dunlin, Redshank and Turnstone		
Blackwater Estuary	Little Egret, Golden Plover, Bar-tailed Godwit, Sandwich Tern, Roseate Tern, Common Tern		To maintain the bird species of special conservation interest for which this SPA has been listed at favourable conservation status
Blackwater Callows			
Helvick Head Coast	Peregrine, Chough Kittiwake and Guillemot		To maintain the bird species of special conservation interest for which this SPA has been listed at favourable conservation status
Mid-Waterford Coast	Peregrine, Chough Hering Gull, Cormorant		To maintain the bird species of special conservation interest for which this SPA has been listed at favourable conservation status

Table 2: Natura 2000 sites within 15km of Waterford City and County

County Cork		**Special Areas of Conservation (SACs)**
Site code **Site name**	**Qualifying interests**	**Conservation objectives**
Ballymacoda Bay SPA	Estuaries, salt meadows, mudflats and sandflats	To maintain the Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status.

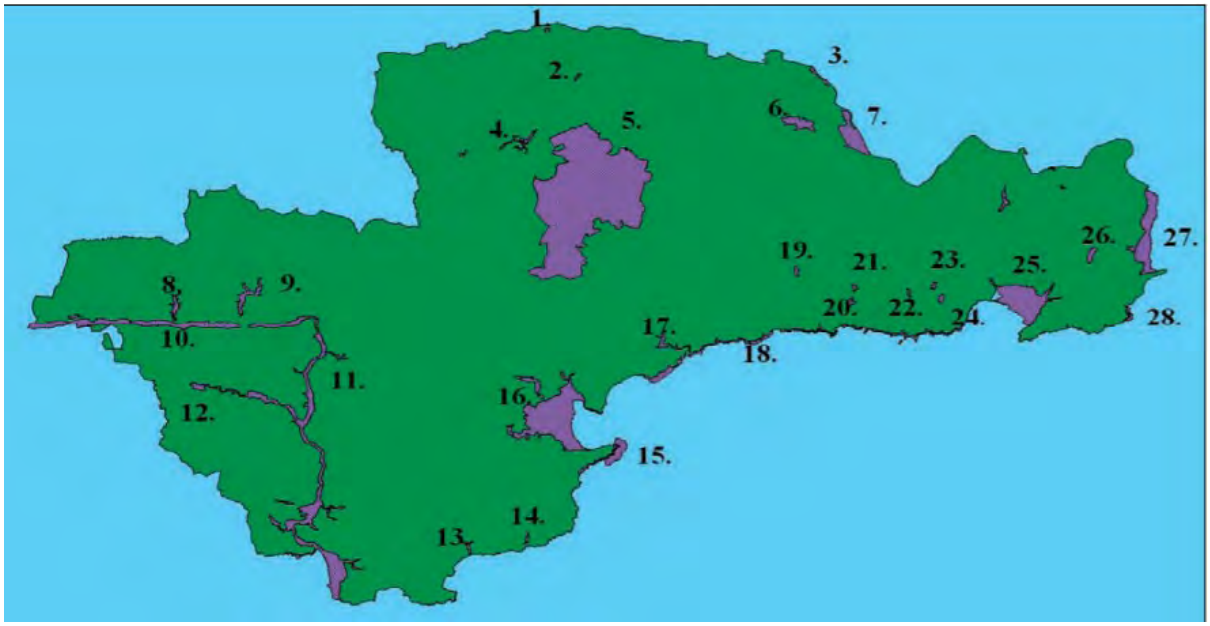
		.
000072 Blackwater River (Cork/Waterford)	Estuary, Mudflats, Shingle Banks, Salt Meadows, Floating River Vegetation, Old Oak Woods, Alluvial Woodland, Yew Woodland, Freshwater Pearl Mussel, White-clawed Crayfish, Shad, Lampreys, Salmon, Otter, Killarney Fern	To maintain the Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status. See above
Kilkenny		**Special Areas of Conservation (SACs)**
Site code **Site name**	**Qualifying interests**	**Conservation objectives**
0002162 River Barrow and River Nore	Alluvial Wet Woodlands, Petrifying Springs, Old Oak Woodlands, Floating River Vegetation, Estuary, Tidal Mudflats, Salicornia Mudflats, Atlantic Salt Meadows, Dry Heath and Eutrophic Tall Herbs Sea lamprey, Brook Lamprey, River Lamprey, Freshwater Pearl Mussel, Nore Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter *Vertigo moulinsina,* Killarney Fern	To maintain the Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status. See above
Wexford	Large Shallow Inlets and Bays	To maintain the favourable conservation condition of

000764 Hook Head SAC	Reefs Vegetated Sea Cliffs	these habitats In accordance with attributes and targets set out in Conservation Objectives Series (NPWS 2013).

2.4 Other Designated Sites

2.4.1 Proposed Natural Heritage Areas

There are 30 proposed Natural Heritage Areas in Waterford City and County protected in the Development Plan in recognition of nationally important habitats, species and sites of geological interest. Fenor Bog is also designated a Nature Reserve and is the only community owned Nature Reserve in the State. Map 2 and Table 3 below list the proposed NHAs in Waterford.



Map 2. Proposed Natural Heritage Areas in Waterford City and County

Reference No.	pNHA	Reference No.	pNHA
1.	Kilsheelan Lake	15.	Heilbhic Head
2.	Toor Wood	16.	Dungarvan Harbour
3.	Fiddown Island	17.	Stradbally Woods
4.	Nire Valley Woods	18.	Ballyvoyle Head to Tramore
5.	Comeragh Mountains	19.	Ballinlough
6	Portlaw Woods	20.	Lissaviron Bog
7.	Coolfin & Darrigle Marshes	21.	Castlecraddock Fen
8.	Glenmore Woods	22.	Fenor Bog (NHA)
9.	Lismore Woods	23.	Carrickavrantry Reservoir & Marsh
10.	Blackwater Callows	24.	Islandtarsney Fen
11.	Blackwater River and Estuary	25.	Tramore Dunes & Backstrand
12.	Tallow Church of Ireland	26.	Belle Lake
13.	Ballyeelinan Wood	27.	Creadan Head
14.	Glen Anna Wood	28.	Dunmore East Cliffs

29.	Kilbarry/Ballinakill	30.	King's Channel

Table 3 Proposed Natural Heritage Areas in County Waterford

2.4.2 Wetlands

Wetlands are areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing. Wetlands are significant habitats in Waterford providing habitats for communities of species that can survive in aquatic and semi-aquatic conditions. The amount of drainage and water present are their most important feature as increased drainage or flooding can cause significant change in habitat value and species diversity. The Water Framework Directive and Ramsar Convention provide for the protection and wise use of Wetlands. A total of 45 sites have been identified as Ramsar sites in Ireland. These are wetlands that are of significant value for nature. There are two Ramsar Sites in Co. Waterford - Dungarvan Harbour and Tramore Bay.

There are over 200 wetlands of local biodiversity interest in Waterford and ongoing survey work since 2006[6] has recorded their habitat diversity and condition. These and other habitats such as riverbanks, small woodlands and hedgerows are very important as interconnecting ecological corridors between designated sites and recognised under Article 10 of the EU Habitats Directive which states that Member States shall endeavour in their land use planning and development policies, to encourage the management of features of the landscape, which are of major importance for wild flora and fauna.

A key challenge is the maintenance of favourable conservation status for all protected habitats and species avoiding encroachment of development on designated sites and sites of local biodiversity value, maintaining appropriate buffers around these areas and also enhancing green infrastructure and ecological corridors between key sites of nature conservation value.

2.5 Overview of Receiving Environment

2.5.1 Conservation Status of protected habitats and species occurring in Waterford

In December 2007, the first baseline assessments of conservation status for all 59 habitats and c.100 species listed for protection by the EU in Ireland was prepared by the National Parks and Wildlife Service as required under Article 17 of the Habitats Directive. The report was the first such comprehensive compilation of the status of habitats, animals and plants in Ireland which have protected status under national and EU law. The report found that only 7% of the habitats examined were in good status, with 46% inadequate and 47% bad. Many habitats associated with water were considered to be in bad condition. Even moderate declines in water quality makes rivers and lakes unsuitable for many fish and invertebrate species. Coastal habitats were found to have declined in quality, often as a result of recreation and development pressure over the previous 20 years. Roughly 50% of the species examined were in good status, while 10%

[6] Wetland Surveys completed in 2006, 2015 and 2021.

were considered bad. Species such as bat, seals, dolphins and whales were considered to be in good condition.

Availability of data on some Annex II species such as Twaite Shad and Allis Shad is poor but surveys on Otter and Lamprey indicate that they hold favourable conservation status in Waterford.

In Waterford City Annex 1 habitats listed as qualifying interests for this section of the River Suir SAC are Atlantic Salt Meadows and Mediterranean Salt Meadows. Areas of saltmarsh along King's Channel and Ballynakill were surveyed in the NPWS Saltmarsh monitoring project 2007-2008. The overall conservation status of the survey site was rated as unfavourable-bad due to the negative impact of adjacent development, infilling of saltmarsh habitat and disturbance from pipeline construction, potential loss of Mediterranean Salt Meadows (Sea Rush had been recorded in the past but not in this survey) habitat and decline of the rare species Meadow Barley.

A more recent survey in 2017-2018[7] reported a favourable condition status for structure and function of the saltmarsh habitat and good ecological status for the site.

The third Irish report on status of habitats and species protected under the EU Habitats Directive (NPWS 2019) shows that most listed habitats are at unfavourable status and almost half are demonstrating ongoing declines. "The majority of species (57%) listed on the Habitats Directive are, however at Favourable status in Ireland including most of the bat species, seals and cetaceans. A declining trend is reported for 15% of species with freshwater species most at risk. An improving trend is reported for 17% of species with populations of species such as otter and pine marten and many bat species expanding. The salmon is stable due to a very recent improving trend though still in low numbers and is susceptible to a wide range of pressures in the ocean and freshwater. Fish species such as sea lamprey, pollan and twaite shad remain at Bad status although a small number are considered to be in Bad status and continue to require concerted effort to protect and restore them. The report highlighted that the freshwater pearl mussel, which can live to an age of 130 years, is on the brink of extinction in Ireland. Waterford has three freshwater pearl mussel rivers – the Blackwater, Licky and Clodiagh all of which are known to have had a dramatic decline in populations. A survey of the River Clodiagh FPM population by Ross in 2006 estimated a total population of 2,412 individual mussels remaining, 97% of which are longer than 80mm in length. He concluded that there was unlikely to be any living mussels present that are younger than 30 years of age. However by 2019 it is estimated there were under 100 adult mussels remaining with little or no survival of juveniles. Key pressures include hydromorphological and agricultural impacts with sediment run off to the river causing detriment to mussel populations.

[7] Saltmarsh Monitoring Project 2017-2018 Irish Wildlife Manuals 108 NPWS

2.5.2 Water Quality

The maintenance of favourable conservation status for freshwater species is dependent on good habitat quality requiring good water quality. Waterford is fortunate to have a number of high water quality status rivers which are known as Blue Dot Catchments and these include the Glasha, Nier, upper reaches of the Tay and Mahon, Dalligan, Upper Colligan, Glenshelane, Glenafallia, Glenakeefe, Monavugga and Owenashad. Maintenance of high water quality status in these river systems is imperative for the protection of spawning grounds for species such as salmon, lamprey, crayfish and pearl mussel that occur either within the headwaters or downstream in the catchment.

Map 3 below details surface water status across the City and County in the period 2013-2018. Key river catchments are the River Suir and Blackwater.

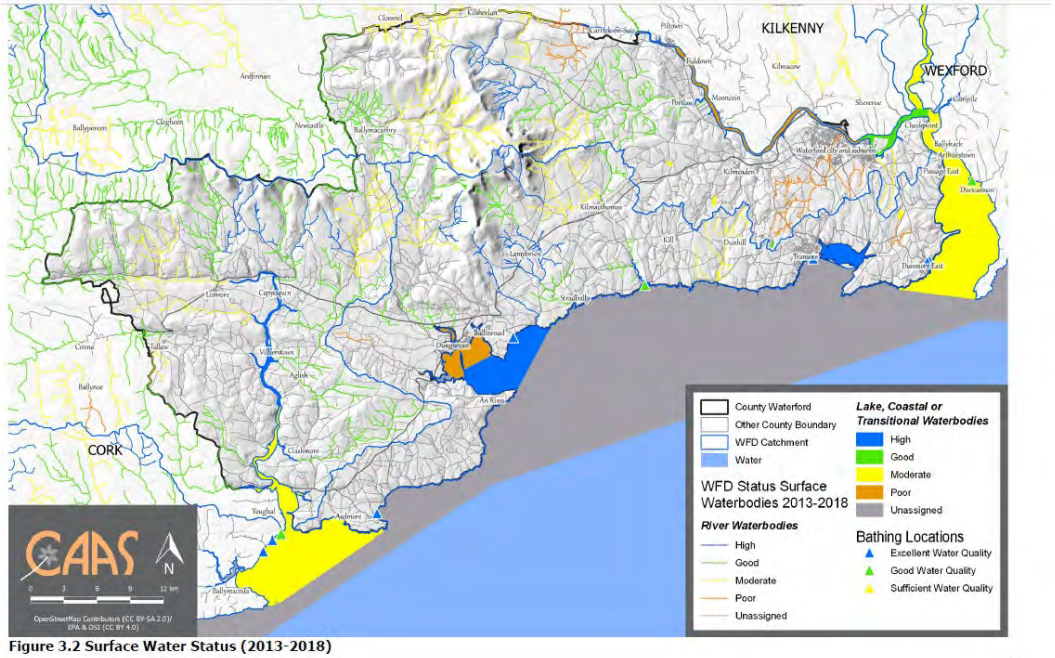


Figure 3.2 Surface Water Status (2013-2018)

CAAS for Waterford City and County Council 12

The status of most of the rivers within the county is classified as moderate, good and high, however sections of rivers (including the Suir, St. John's River, Leperstown Stream and Brickey) are identified as poor due to unsatisfactory ecological and /or physic- chemical status. The surface water status of transitional and coastal waterbodies within and surrounding the county is rated as high including Upper Blackwater Estuary; Tramore Back Strand and Dungarvan Harbour, Good (including Lower Suir Estuary, Little Island-Cheekpoint) and moderate (including Barrow/Suir/Nore Estuary, Lower Blackwater Estuary/Youghal Harbour; Youghal Bay and Waterford Harbour, however some transitional waterbodies (including Upper Suir Estuary; Middle Suir Estuary and Colligan Estuary) are rated as poor due to unsatisfactory ecological and /or physic- chemical status.

Significant pressures identified in Waterford Catchments by the EPA include agriculture, combined sewer overflows and river channel dredging in the River Suir catchment , expansion

of dairy industry and zero grazing operations with associated increased production of slurry in the Colligan-Mahon catchment, diffuse agriculture and elevated nutrients in the Blackwater catchment while in Blue Dot catchments there is evidence of agricultural land clearance in advance of next round of CAP and agri-environmental schemes.
The loss of excess nutrients and sediments, excess Phosphorous in rives and lakes and nitrogen in estuaries and coastal water bodies can lead to proliferation of algae as evident in Waterford Estuary, Dungarvan Harbour and Ardmore Bay.

Other threats to site integrity include impacts from urban waste water; freshwater habitats and species may be impacted by run off from underperforming sewer networks and misconnections with private foul connections to storm sewers and overflows from combined sewers and storm waters.
In rural areas there is potential for significant effects on groundwater and surface waters from the **c**umulative impact of increasing rural housing and septic tanks not subject to monitoring and maintenance.

Changes to the physical course and structure of watercourses including dredging and channelling of rivers, land drainage and culverting can impact on the natural functioning of a watercourse with consequent impacts on freshwater habitat sand species.

Sediment loss from Forestry and quarrying activities also has potential for significant effects on groundwater and surface waters.

Table 4 details water quality status for Waterford's rivers and environmental pressures impacting that status. (Source EPA)

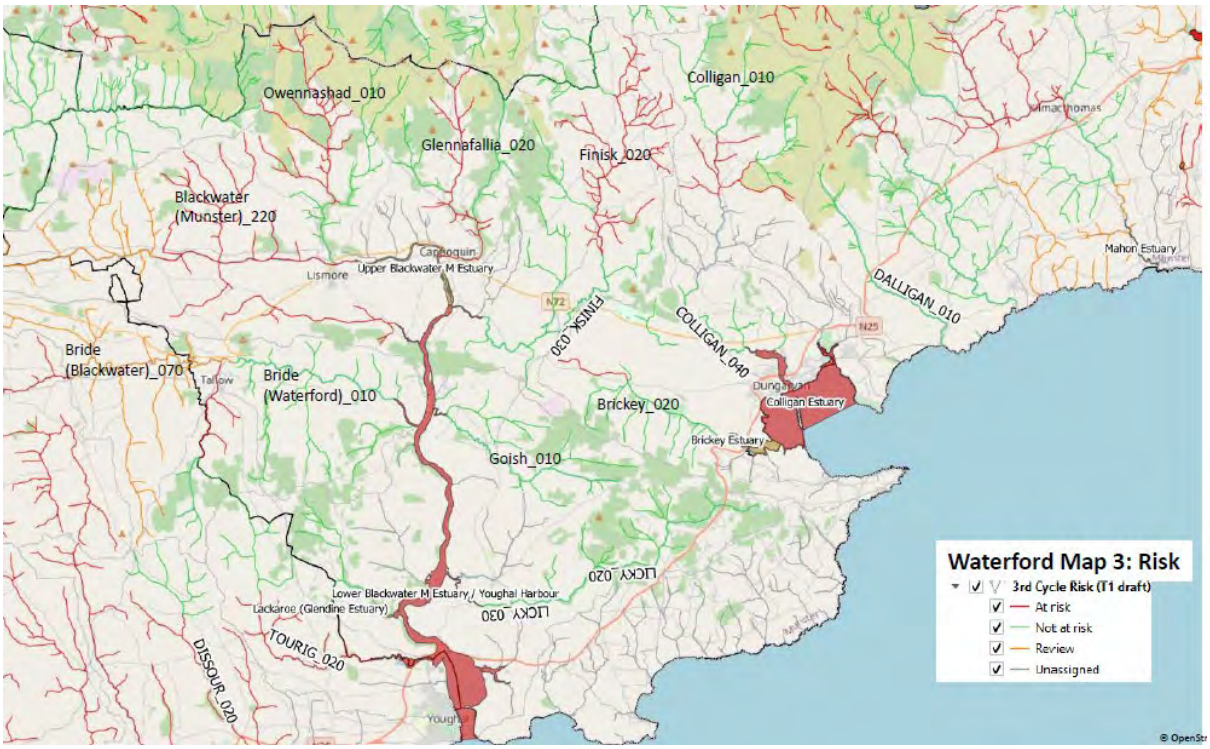
Waterbody	**Type**	**WFD Surface Waterbody Status (2013-2018)**
Suir_220	River	Poor-due to poor ecological/biological status. No pressures identified.
St. John's_020	River	Poor-due to poor ecological/biological status. Under significant pressure from agricultural, urban run-off and urban wastewater sources.
Leperstown Stream_010	River	Poor-due to poor ecological/biological status. Under significant pressure from agricultural sources.
Brickey_010	River	Poor-due to poor ecological/biological status. Under significant pressure from agricultural and domestic waste water sources.
Upper Suir Estuary	Transitional	Poor-due to poor ecological/biological status. Under significant pressure from agricultural sources.
Middle Suir Estuary	Transitional	Poor-due to poor ecological/biological status. Under significant pressure from agricultural sources.

Colligan Estuary	Transitional	Poor-due to poor ecological/biological status. Under significant pressure from urban wastewater sources.
Suir_210	River	Moderate. No pressures identified.
Suir_200	River	Moderate. No pressures identified.
Suir_190	River	Moderate. No pressures identified.
Owbeg_010	River	Moderate. Under pressure from hydromorphological/anthropogenic sources.
Nier _020	River	Moderate. Under pressure from Forestry sources.
Nier _010	River	Moderate. Under pressure from hydromorphological/anthropogenic sources.
Mahon_020	River	Moderate. Under pressure from urban wastewater sources.
Halfway House Stream _010	River	Moderate. Under pressure from urban run-off sources.
Glenaboy_020	River	Moderate. Under pressure from urban run-off sources.
Finisk_020	River	Moderate. No pressures identified.
Dunhill_010	River	Moderate. Under pressure from domestic wastewater sources.
Colligan _020	River	Moderate. No pressures identified.
Clodiagh (Portlaw)_030	River	Moderate. No pressures identified.
Blackwater (Munster)_220	River	Moderate. Under pressure from extractive industry related sources.
Ballyshunnock	Lake	Moderate. Under pressure from agricultural sources.
Belle	Lake	Moderate. Under pressure from agricultural sources.
Knockaderry	Lake	Moderate. Under pressure from agricultural sources.
Lower Blackwater Estuary/Youghal Harbour	Transitional	Moderate. Under pressure from agricultural sources.
Barrow Suir Nore Estuary	Transitional	Moderate. No pressures identified.
Waterford Harbour	Coastal	Moderate. Under pressure from hydromorphological/anthropogenic sources.
Youghal Bay	Coastal	Moderate. Under pressure from agricultural sources.
Tourig_020	River	Good. No pressures identified.
Tourig_010	River	Good. No pressures identified.
Tay_030	River	Good. No pressures identified.
Tay_010	River	Good. Under pressure from agricultural and forestry sources.
Suir_180	River	Good. No pressures identified.
Suir_170	River	Good. No pressures identified.
Owennnnashad _030	River	Good. No pressures identified.

Owennnnashad _020	River	Good. No pressures identified.
Nier_030	River	Good. No pressures identified.
Morragen_010	River	Good. No pressures identified.
Mahon_040	River	Good. No pressures identified.
Licky_030	River	Good. No pressures identified.
Licky_020	River	Good. No pressures identified.
Licky_010	River	Good. No pressures identified.
Goish_020	River	Good. Under pressure from agricultural sources.
Goish_010	River	Good. Under pressure from forestry sources
Glennafallia_020	River	Good. No pressures identified.
Glennafallia_010	River	Good. Under pressure from forestry sources.
Glendine (Blackwater)_010	River	Good. No pressures identified.
Glenaboy_010	River	Good. No pressures identified.
Finisk_030	River	Good. No pressures identified.
Finisk_010	River	Good. No pressures identified.
Colligan_040	River	Good. Under pressure from hydromorphological/anthropogenic sources.
Colligan_010	River	Good. No pressures identified.
Clodiagh (Portlaw)_050	River	Good. No pressures identified.
Clodiagh (Portlaw)_040	River	Good. No pressures identified.
Clodiagh (Portlaw)_020	River	Good. No pressures identified.
Bride (Blackwater)_070	River	Good. No pressures identified.
Blackwater (Munster)_210	River	Good. No pressures identified.
Araglin (Blackwater)_030	River	Good. No pressures identified.
Araglin (Blackwater)_020	River	Good. No pressures identified.
Araglin (Blackwater)_010	River	Good. No pressures identified.
Carraigavrantry	Lake	Good. Under pressure from forestry sources.
Lower Suir Estuary (Little Island-Cheekpoint)	Transitional	Good. Under pressure from agricultural sources
Tay_020	River	High. No pressures identified.
Monavugga_010	River	High. No pressures identified.
Mahon_010	River	High. No pressures identified.
Glenshelane_010	River	High. No pressures identified.
Glenakeeffe_010	River	High. No pressures identified.
Glasha(Waterford)_010	River	High. No pressures identified.
Farnane_010	River	High. No pressures identified.
Dalligan_010	River	High. No pressures identified.

Clodiagh (Portlaw)_010	River	Under pressure from agricultural and forestry sources.
Araglin(Colligan)_010	River	High. No pressures identified.
Upper Blackwater Estuary	Transitional	High. Under pressure from hydromorphological/anthropogenic sources.
Dungarvan Harbour	Coastal	High. No pressures identified.
Tramore Back Strand	Coastal	High. Under pressure from hydromorphological/anthropogenic sources.

The third cycle River Basin Management Plan 2021-2024 has identified a number of watercourses at risk of not achieving good water quality status detailed in Maps 4 and 5 below.



Map 4. Watercourses at risk West Waterford

Map 5. Watercourses at risk East Waterford

2.5.3 Habitat Loss and Species Disturbance

Many of Waterford's scenic amenity and outdoor recreation areas are within the Natura 2000 network e.g. Comeragh Mountains, Dungarvan Harbour and Tramore Dunes and the Draft Development Plan recognises potential for further development of cycling and walking trails and Blueway related activity on the River Blackwater. The challenge is to maintain a high quality standard of visitor attraction whilst avoiding over tourism and degradation of the natural environment.

Since the onset of the 2020 Pandemic Waterford's trail network has experienced greater levels of recreational use and demand for extension to the existing trails network . People are seeking greater access to the coast, rivers and uplands and on trails that accommodate physical distancing of 2m. Where trail networks encroach on sites designated for nature conservation there is potential for competing interests and loss of ecological value. This may manifest itself through trampling pressure and erosion of semi-natural habitat e.g. coastal heath, saltmarsh, dry heath and wet heath as users divert from single routes on a trail. The very construction of a trail can cause direct loss of habitat e.g. coastal grassland, dry heath and wet heath and bringing an increased level of usage to what were previously undisturbed areas that may impact on coastal nesting sites for species such as Chough and Peregrine Falcon.

In wetland areas during winter e.g. Dungarvan Harbour and Tramore Back Strand waders and wildfowl are easily disturbed by dogs off leads displacing birds from where they feed thus reducing their energy intake but also causing increase in energy expenditure by needing to fly off to an alternative feeding area where there may be competition for food from other bird species. Where there is constant displacement waterbirds may be disturbed so frequently that their displacement is equivalent to habitat loss. At its worst effect this may cause reduced

survival or reproductive success with significant consequences at population level for that species. Where new trails are created with night time lighting this can also impact on roosting and foraging areas for birdlife and bats. Supporting infrastructure such as car parks may also give rise to increased surface water flow which may impact on adjacent watercourses.

More significant ecological impacts can arise from motorised recreation such as use of scrambler bikes and quads in heather moorland and sand dunes whilst jet skis and power boating can cause disturbance to nesting waterbirds.

As Ireland aims to reduce carbon emissions in line with targets set in the 2021 Climate Action Act there will be an increase in renewable energy infrastructure including on and off wind turbines. This infrastructure has potential for significant effects on bird life through risk of bird strike and also disturbance to Cetaceans in marine areas.

2.5.4 Noise

The River Suir provides habitat for a number of freshwater species that are qualifying interests of the SAC. These are; Otter, Sea Lamprey, River Lamprey, Salmon and Twaite Shad. Twaite Shad are a member of the Clupeid Family, which are most sensitive to noise being fish with a swim bladder associated with hearing. Potential for significant effects on the species arises from construction noise that may impact their migration upstream to spawning grounds leading to risk of reduced reproductive success, decreased recruitment, mortality and overall population decline of the Annex 1 qualifying species**.**

2.6 Protection of species outside designated sites

While the designation of the Natura 2000 Network is based on the presence of Annex 1 habitats or species that meet a range of criteria for site designation it should be noted that these habitats and species are protected under the Habitats Directive wherever they occur even if ex-situ to the Natura 2000 Network. The presence of such habitats and usage by these species is key to the overall conservation status of the Natura 2000 Network and any potential for significant effects requires comprehensive assessment. Ecological pressures may arise from proposals for drainage and infilling of wet grasslands used by overwintering waders and wildfowl, zoning of lands for development that contain Annex 1 habitats or culverting of watercourses that are important for Otter or freshwater fish. Collation of data on these habitats and species is key to an informed Appropriate Assessment process.

Apart from Annexed habitats Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and steppingstones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological value outside the Natura 2000 network are maintained and it recognises the need for the management of these areas through land use planning and development policies. Ecological corridors include linear features such as treelines, hedgerows, disused railway lines, rivers, streams, canals and ditches.

3. Appropriate Assessment Screening

Having reviewed the conservation status of qualifying interest species of Waterford's Natura 2000 Network and pressures on the receiving environment the next step in the screening process was to review all policies and land use zonings in the Draft Waterford Development Plan 2022-2028 to assess potential for significant effects on the conservation objectives of the Natura 2000 network.

3.1 Development Plan Policy Screening

Waterford City and County Development Plan contains over 500 policies and the majority of policies have no implications for significant effects on the conservation objectives for the Natura 2000 Network. Core Strategy Objectives 02 and 17 make reference to UN Goals for Sustainable Development which frame the context for the Draft Plan. Chapter 9 of the Draft Plan – Climate Action, Biodiversity and the Environment sets out policies for protection of the Natura 2000 Network and the AA process and a number of policies throughout the plan are explicit in the requirement to satisfy the AA process in order to deliver that policy e.g. CS06, ECON22, ECON 16, SC36 and SC40. Policies for protection of Water Quality and Flood Plains and promotion of SuDS will in turn provide positive benefits for the Natura 2000 Network e.g. ECON 03, TRANS 59, UTL06, UTL09, UTL10, UTL11, UTL21,H18. Protecting the habitat confers protection for species within the habitat.
No policies were assessed as having potential for adverse impacts (permanent and irreversible) on the integrity[8] of the Natura 2000 Network. However, a number of policies in the Pre-Draft Plan were assessed as having potential for significant effects on Natura 2000 sites and thus screened in for a Stage 2 Appropriate Assessment with recommended wording amendment to mitigate for potential for significant effects. These amendments were incorporated to the policies in the Draft Plan as detailed in table below.

Table 5. Policies in Draft Plan Screened in for AA

Policy Reference	Policy and mitigation amendment
W City 26	"We will ensure that the growth of the city takes place in an infrastructure led manner.....we support the development of transformational infrastructure such as an additional city centre river crossing and a downstream river crossing to link the R710 to the R711/N25 to the east of the city..... *Proposals for development shall ensure no adverse impacts on the integrity of the River Suir SAC.*
ECON 12	We will facilitate farm or rural resource related enterprise.....and likely impacts on amenity and the environment *and the Natura 2000 Network.*

[8] whereby the 'integrity of the site' defined as the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated.

ECON 23	In collaboration with local communities , we will promote, facilitate.....and deliver improvements to our tourism product....walking and cycling trails....service/rest facilities. *Proposals for development shall ensure no adverse impacts on ecological integrity including the Natura 2000 Network.*
TRANS 07	We will promote walking and cycling.....routes which are high quality, fully connected and inclusive *with no adverse impacts on ecological integrity including the Natura 2000 Network...*...or any update thereof.
TRANS10	We will continue to develop an integrated network of greenways/blueways and green/blue routes within Waterford and linking to adjoining counties. *Proposals for development shall ensure no adverse impacts on ecological integrity including the Natura 2000 Network.*
TRANS27	We will continue to support the development of the Port of Waterford and Waterford Airport to create , maintain and strengthen linkages with EU and international markets *subject to environmental considerations including no potential for adverse impacts on the Natura 2000 Network.*
TRANS 29	We will support improved berthing facilities for cruise ships ..... subject to environmental considerations *including no potential for adverse impacts on the Natura 2000 Network.*
CM06	We will facilitate appropriate public access to the coast and the sustainable development of coastal walkways subject to ecological, *habitats directive* and climate risk assessments.
BGI10	To support the sustainable ..of Blueways ..environmental degradation. *Proposals for development shall ensure no adverse impacts on ecological integrity including the Natura 2000 Network.*
BGI11	We will work in collaboration...development potential of additional trails, whilst ensuring *no adverse impacts on ecological integrity including the Natura 2000 Network* and best practise.....and management.

BG12	To develop comprehensive plans for all proposed recreational trails that incorporate planning and design of sustainable trails and supporting infrastructure such as car parking and lighting and in consultation with local communities to ensure no adverse impact on local land use and the environment.

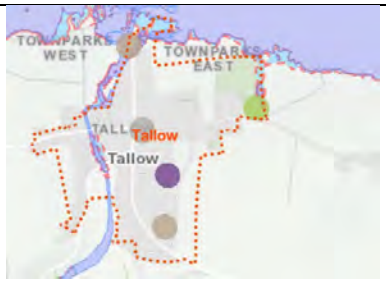
Some policies promote preparation of plans which will be subject to AA as part of that plan process e.g. ECON 17 (Estuary Framework Plan), UTL12 (Renewable Energy Strategy) and SC40 (Open Space Strategy). The existing Renewable Energy Strategy included as Appendix 7 to the Draft Plan was subject to AA Screening in 2016 and found not to have potential for significant effects on the Natura 2000 Network.

3.2 Land Use Zoning Screening

The Draft Development Plan Zoning was overlain on Natura 2000 Network mapping to assess potential for significant effects.

Table 6. Land Use Zoning Screened in for AA

Ballymacarbry	The identified settlement boundary takes account of the flood zone which encompasses the boundary of the SAC. An area zoned institutional in the previous Co. Development Plan which included part of the buffer zone to the river was previously built on subject to development consent in 2005.
Bunmahon	No impact on Mid-Waterford Coast SPA . However, the identified settlement boundary includes site of Annex 1 Metalliferous Vegetation. It is a recommendation of this assessment that an objective be added to those cited for Bunmahon as follows; D0 11 To protect former mine spoil vegetation at Knockmahon that corresponds to the Annex 1 Habitat Calaminarian Grassland. There is no SAC designated at the site but there is an obligation to protect the Annex 1 habitat under the Habitats Directive.

Cappoquin	The identified settlement boundary takes account of the flood zone which encompasses the boundary of the SAC.
Dungarvan	Feeding ground for Annex 1 Brent Geese zoned as conservation, amenity, buffer space.
Portlaw	Zoning encroaches on boundary of River Clodiagh (River Suir) SAC and to avoid potential for impacts on integrity should be re-zoned open space, buffer.
 **Tallow**	The identified settlement boundary takes account of the flood zone which encompasses the boundary of the SAC.
Waterford City, Riverside, Ballinakill Downs	Historic overlap between the SAC boundary and residential land use zoning incorporating back gardens of 11 houses. SAC boundary overlaps the residential zoned area by approximately 0.5ha. Discrepancy was notified to NPWS in 2012. As the area is already built on (planning permission was approved for 57 houses in 1997 97/226 McInerney Construction and in 1996 for 12 houses 96/9888) a change of the residential zoning to open space would not have any effect on the SAC boundary at this site.
Waterford City, King's Channel	Historic overlap between the SAC boundary and residential land use zoning incorporating back gardens of 8 houses. SAC boundary overlaps the residential zoned area for a length of approximately 240m. Discrepancy was notified to NPWS in 2012. Review of the 2000 aerial photographs shows housing in existence and it may be the case that permission was approved prior to advertisement of the River Suir SAC designation on 1st July 1999. The 1997 NHA

	boundary survey noted adjacent housing development in the survey notes.
Waterford City, Ballynakill House	Adjacent to the entrance to the Little Island Ferry, the SAC boundary runs through the property of Ballynakill House which is indicated on historic 6 inch maps. The site does not contain any of the habitat types for which the SAC is designated. Discrepancy was notified to NPWS in 2012.

3.3 Population and Residential Zoning Objectives

The Waterford City and County Development Plan 2022-2028 aims to support growth in the Regional City in accordance with the RSES and NPF A review of the County Development Plan 2012-2018 and City Development Plan 2013-2019 showed that of the existing area of zoned land in the City, approximately 247.51 ha remained undeveloped and c.40 ha of this is subject to extant permissions and in the County, approximately 442.45 ha remained undeveloped and 4.64 ha of this is subject to extant permissions.

Table 7 sets out the projected population targets for Waterford City and County in line with the RSES and NPF. These targets will ensure that Waterford city has the capacity to develop in its role as a regional economic driver for the wider city region, while the growth rate for Dungarvan is 50% that of the City enabling it to function as a key service town for West Waterford.

For rural areas, development plan objectives are to facilitate the housing requirements of the local rural community subject to satisfying site suitability and technical considerations and directing urban generated development to areas zoned and designated for housing in the adjoin villages and rural settlement nodes. Provision of single houses in the countryside will be based on economic or social need , siting and design and having regard to viability of smaller towns and rural settlements consistent with NPO19 of the National Planning Framework. The primary objective is to ensure consolidation and growth of smaller towns, rural settlements and settlement nodes.

Table 7. Envisaged target population for Waterford City and County in the RSES, NPF

	2016	**2028**	**2031**	**Residential Zoned land required in Draft Plan (ha)**
Waterford County	116,176	137,630	144,00	
Total City Area	51,616	66,285	70,995	
Waterford City & Suburbs	48,216	62,382	66,966	202

Dungarvan (including Ballinroad)	10,388	11,864	12, 337	25
Clonmel Environs	925	1,056	1,091	2
Tramore	10,381	11,549	11,873	19
Dunmore East	1,808	2,002	2,068	4
Portlaw	1,742	1,929	1,992	4
Lismore	1,374	1,521	1,572	3
Aggregate Rural (incl. Rural towns and villages)	41,342	45, 328	46,101	

In the context of Habitats Directive Assessment, potential impacts on Natura 2000 sites may arise where increased population growth cannot be served by water and wastewater infrastructure leading to deterioration of water quality standards and pollution which may compromise habitat quality and thereby affect the favourable conservation status of habitats and species. Table 8 details Waste Water Capacity, level of treatment and compliance in Waterford City, towns and villages. Review of this table indicates all settlements have adequate capacity for future growth with some constraints at Tallow, Ballyduff (West), Clonea-Power, Bunmahon, Annestown and Fenor. As Ballyduff (West), and Clonea-Power are located on SAC rivers containing Freshwater Pearl Mussel resolution of capacity is imperative prior to approval of any future loading or at least requirement for tertiary treatment at these locations.

In Waterford City, Dungarvan, Tramore, Lismore, Cappoquin, Portlaw, Kilmacthomas and Dunmore East there is adequate waste water capacity to cater for projected population growth in the Core Strategy. The current water quality status of the Lower River Suir Estuary is good and Waterford Harbour is moderate. Dungarvan Harbour and Tramore Bay are both rated high status. The Blackwater and Mahon are rated as moderate.

Table 8. Waste Water Capacity and level of Treatment in Waterford Settlements

WWTP	Level of Treatment	Compliance (Pass/Fail)	Parameter Failed	Cause of Exceedance and Significance of Results	Organic Capacities (Population Equivalent)		
					As Constructed	Collected Load (peak week)	Remaining
Waterford City	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	190,600	116,576	74,024
Tramore	Secondary	Fail	Ammonia-Total (as N)mg/l	WWTP not designed for N removal. Not compliant with Wastewater Discharge Licence. Discharge does not have an observable impact on water quality.	20,000	15,183	4,817
Lismore	Tertiary	Pass	N/A	Compliant with Wastewater Discharge Licence	3,000	2,148	852
Cappoquin	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	2,728	1,115	1,613
Tallow	Tertiary	Pass	N/A	Compliant with Wastewater Discharge Licence	2,186	2,295	0
Portlaw	Tertiary	Fail	Ortho-Phosphate (as P) unspecified mg/l Suspended solids mg/l	Exceedances relate to upgrade works to WWTP. Not compliant with Wastewater Discharge Licence. Ambient monitoring results meet required	2,500	1,796	704

				EQs. The EQs relate to the oxygenation and nutrient conditions set out in the Surface Water Regulations 2009. Discharge does not have an observable impact on water quality or negative impact on WFD Status.			
Kilmacthomas	Tertiary	Pass	N/A	Compliant with Wastewater Discharge Licence	2,110	1,173	937
Baile na nGall	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	1,600	30	1,570
Ardmore	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	2,934	1,312	1,622
Dunmore East	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	8,991	3,436	5,555
Dungarvan	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	25,000	20,103	4,897
Stradbally	Secondary	Pass	N/A	Compliant with Wastewater Discharge Licence	1,914	563	1,351
Rural Villages					**WWTP Capacity**		**Spare Capacity**
Aglish					800		300
Cheekpoint					750		432
Villierstown					700		400
Kill					750		450

Clashmore					Capacity available		Currently envisaged there is capacity available
Dunhill					500(ICW)		300
Ballyduff Upper (West)					Septic Tank near capacity		200 possibly
Annestown					Septic Tank at capacity		
Fenor					Septic Tank at capacity		
Clonea Power					Septic Tank at capacity		
Rathgormack					Septic Tank		
Tooraneena					ICW		
Ballymacarbry							Currently envisaged there is capacity available
Rural Networks							
Passage East/Crooke							Currently envisaged there is capacity available
An Rinn (Heilbhic/Maoil na Choirne/Baile na nGall//Old Parish)					1,600		630
Kilmeaden (Ballyduff Lower (east)					1,142		883
Lemybrien/Kilrossanty					Kilrossanty-very limited		Small Towns and Villages

					capacity available Lemybrien-no capacity available		Growth Programme has announced an investment in the WWTP which will facilitate an upgrade to cater for capacity as outlined in the CDP .
Bonmahon/Knockmahon					3 Septic Tanks at capacity		

3.4 Infrastructure Projects

Some policies in the Draft Development Plan set a framework for future infrastructure development that may impact on Natura 2000 sites, e.g. policies supporting development of Waterford Port, Waterford Airport, Dunmore East Marina, breakwater and port, City Centre river crossings and a down-stream river crossing to link the R710 to the R711/N25. Any potential for significant effects on the Natura 2000 Network shall be assessed as per the policies and objectives set out in Chapter 9 which require compliance with the AA process.

3.5 Settlement Objectives

Appendix 2 details specific development objectives for the range of settlements across the county. Explicit objectives for protection of the Natura 2000 Network and consideration of Articles 6 and 10 of the Habitats Directive are cited for Ballyduff D01, Cappoquin D01, Villierstown D01 (relevant to River Blackwater SAC), Portlaw D03 (River Clodiagh SAC) and Tramore D04 (Tramore Dunes and Backstrand SAC and SPA). An objective (D01) for Clonea-Power requiring availability of appropriate waste water treatment system prior to any further residential development is also positive in the interests of protecting the River Clodiagh SAC. It is a recommendation of this assessment that a similar objective be included for Ballyduff West given that the septic tank is near capacity and the Blackwater is designated for Freshwater Pearl Mussel. It is also a recommendation of this assessment that an objective be added to those cited for Bunmahon as follows; D0 11 To protect former mine spoil vegetation at Knockmahon that corresponds to the Annex 1 Habitat Calaminarian Grassland. There is no SAC designated at the site but there is an obligation to protect the Annex 1 habitat under the Habitats Directive. It is also recommended that the following be added to the General Policy Objectives; To protect the favourable conservation status of sites designated for nature conservation and ensure compliance with Article 6 and Article 10 of the Habitats Directive. This shall mitigate for objectives relating to development of riverside/estuary walkways that may have potential for significant effects e.g. DO1 Dungarvan – development of a linear walkway along the Colligan Estuary.

3.6 Flood Risk and Sea –Level Rise

A Strategic Flood Risk Assessment was prepared as part of the Development Plan Review Process and recommendations integrated into policies of the Plan. The Waterford City Flood Alleviation Scheme has addressed flood areas through the construction of flood defences along the south quays of the River Suir from Grattan Quay to Adelphi Quay and to along the St John's River as far as the Inner Ring Road. Overlay of the flood risk zones on the River SACs demonstrate overlap of Flood Risk Zones with the SAC. Policy UTL 10 sets out a requirement for site specific flood risk assessment which also contributes to protecting the SAC and an adjacent buffer.

Climate Adaptation and building resilience is a key component of the Draft Development Plan in recognition of climate change impacts that are presenting increased intensity and frequency of storm events, increased periods of flooding and drought and rising sea level. A coastal

county such as Waterford is at risk from climate change events ; climate adaptation measures and nature based solutions are required to be inherent to all future land use planning and development proposals. Waterford City and County Council published a Climate Adaption Plan in 2019 which seeks to implement best practices and incorporate solutions that will meet climate change adaptation requirements and service the needs of the communities. With regard to the Natura 2000 Network coastal sites such as Tramore Dunes are at risk from increasing coastal erosion and loss of habitats that are qualifying interests for the site such as dunes and saltmarsh.

3.7 Impacts on Natura sites within 15km of Waterford City and County

There are three Natura 2000 sites located within 15km of County Waterford. All the River SACs within the county (Blackwater, Lower River Suir, Barrow and Nore,) traverse the county boundary with Counties Cork, South Tipperary, Waterford City and Kilkenny. No significant impacts arising from the Draft Development Plan are anticipated upstream in these river corridors. Other Natura 2000 sites within 15km of the county's boundary such as Ballymacoda SPA and Hook Head SAC are self–contained habitats that will not be directly affected by policies in the Draft Development Plan.

4. Summary Screening Assessment

Table 9 below presents a **s**ummary screening of potential for adverse impacts on the Natura 2000 Network from the Draft Development Plan Policies and Land Use Zonings. Where there is potential for the Draft Plan to give rise to impacts on site integrity this is mitigated by policies for protection of the Natura 2000 Network and compliance with the AA process in Chapter 9 of the plan.

Table 9. Threats to Site Integrity of the Waterford Natura 2000 Network

Natura 2000 site	Threat to Site Integrity	Potential for Significant effects/adverse impact on integrity arising from Draft Development Plan	Mitigation
River Suir SAC	Water quality Loss of Blue Catchment Status in tributary rivers. Nutrient and sediment runoff FPM Habitat Noise. Erosion of Saltmarsh	City Infrastructure development including river crossings. Increase in population. Proliferation of unmaintained and unmonitored septic tanks.	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality. Adequate WWTP capacity for population targets in Waterford City. Rural Settlement Strategy promoting consolidation of towns and villages.

River Blackwater SAC	Water quality Nutrient and sediment runoff Loss of Blue Catchment Status in tributary rivers. FPM Habitat Recreational Trails Invasive Species	Agricultural intensification Recreational Trails Proliferation of unmaintained and unmonitored septic tanks.	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality. Rural Settlement Strategy promoting consolidation of towns and villages.
River Nore & Barrow (Waterford Estuary SAC)	Water quality Nutrient and sediment runoff	Expansion of Cruise Ship Tourism	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality. Adequate WWTP capacity for population targets.
Comeragh Mountains SAC	Recreational Trails Encroachment of Bracken Change in vegetation Climate impacts causing peat hagging	Recreational Trails	Policies in Chapter 9 of Draft Plan seeking protection of Natura 2000 Network.
Tramore Dunes and Back Strand	Recreational Trails Development of Waterford Airport Climate Impacts	Recreational Trails	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality. Adequate WWTP capacity for population targets.
Ardmore Head SAC	Recreational Trails Lack of grazing leading to vegetation change	Recreational Trails	Policies in Chapter 9 of Draft Plan seeking protection of Natura 2000 Network.
Nire Valley Woodlands SAC	Natural woodland decline	None Arising	Policies in Chapter 9 of Draft Plan seeking protection of Natura 2000 Network.
Glendine Woods SAC	Natural woodland decline	None Arising	Policies in Chapter 9 of Draft Plan seeking protection of Natura 2000 Network.
Helvick Head SAC	Vegetation Change due to atmospheric N deposition	None Arising	Policies in Chapter 9 of Draft Plan seeking protection of Natura 2000 Network.
Dungarvan Harbour SPA	Storm water runoff from new residential	Increase in population Recreational Trails	Policies in Chapter 9 of Draft Plan seeking

	development near Colligan Estuary. Aquaculture Loss of feeding grounds in areas SPA adjacent to		protection of Natura 2000 Network and Water Quality. Zoning changes in Duckspool.
Tramore Back Strand SPA	Disturbance to foraging and roosting wildfowl and waders from recreational users	Increase in population	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality. Adequate WWTP capacity for population targets.
Mid-Waterford Coast SPA	Recreational Trails Loss of grassland due to intensification of agriculture	Recreational Trails	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality.
Ballyquinn-Helvick SPA	Loss of grassland due to intensification of agriculture	None Arising	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality.
Blackwater Callows SPA	Recreational Trails Loss of grassland due to intensification of agriculture	Recreational Trails	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality.
Blackwater Estuary SPA	Water Quality Recreational Trails	Recreational Trails	Policies in Draft Plan seeking protection of Natura 2000 Network and Water Quality.

4.1 Other Plans and Projects and in-combination effects

The AA process requires consideration of other plans and projects that may contribute in combination with the subject plan to give rise to significant effects or adverse impacts to the integrity of the Natura 2000 Network in Waterford. Relevant Plans in this context include;

Tipperary, Kilkenny, Wexford and Cork County Development Plans
Regional Spatial and Economic Strategy for the Southern Region
River Basin Management Plan for Ireland 2021-2028
Climate Change Adaptation Strategy 2019
Catchment Flood Risk Management Plans

Relevant Projects include;

Development of North Quays SDZ
Sustainable Transport Bridge
River Suir Flood Defences West of Waterford Railway Station
Development of Mount Congreve Visitor Attraction
Development of a SE Greenway network linking Waterford City with South Kilkenny, New Ross and Rosslare.
Fáilte Ireland Activity Centre Tramore and Ardmore
As the Draft Plan itself will not have any adverse impacts on the integrity of the Natura 2000 Network and with reference to the AA of other plans and projects listed above it is considered there is no potential for in-combination impacts to adversely affect the integrity of the Natura 2000 Network in Waterford.

5. Screening Assessment of Proposed Material Amendments

Following public consultation of the Draft City and County Development Plan 2022-2028 between June 18th and August 30th 2021 a total of 479 submissions were received and reviewed to inform proposed amendments to the Draft Plan. These are detailed in the Chief Executive's Report on the Draft Plan Consultation published in November 2021. Following a 12 week review of the Chief Executive's Report the Elected Members approved a number of proposed material amendments to the Draft Plan which were issued for public consultation over a four week period from March 3rd to April 1st 2022. All proposed material amendments were subject to AA Screening (Appendix 1 and Appendix 2) and Table 10 details amendments that screened in for potential for significant effects on the Natura 200 Network and mitigation required to ensure no adverse impacts on the integrity of Waterford's nine SACs and six SPAs.

Potential for significant effects could not be ruled out for development in proximity to the River Suir in Waterford City due to likelihood of increased surface water discharge arising from development of the South Quays (MA186 S19), Ard Rí (MA186 S17), Brooks Site (MA186 S09) and zoning for housing development at Knockboy (MA327) and Islandview (MA354) where discharge of surface water to combined storm water outfall has caused foul water overflow in the past. Extension of the WSV Railway line from Bilberry to Grattan Quay (MA 129 BG20) may involve encroachment through piling on the mudflats of the SAC. Intensification of the cruise industry (MA52 ECON 22) may require more frequent dredging in Waterford Estuary. In Clonmel Environs a change of zoning from High Amenity to Strategic Residential Reserve (MA 203) and an objective for a river crossing from Kilgainy to Moanagariff raise potential for significant effects on the River Suir SAC. However, the plan contains robust and comprehensive policies for protection of the Natura 2000 Network and assessment of projects along with robust policies for protection of water quality supporting objectives under the Habitats and Water Framework Directives. It is considered these policies will mitigate against potential for adverse impacts on the integrity of the Natura 2000 Network. These policies will also mitigate against potential for adverse impacts on the integrity of the River Blackwater (MA161), Waterford Estuary (MA162) and River Clodiagh (MA186 PTS01). Zoning of an area for tourism adjacent to Tramore Sand Dunes (MA294) recognises the popularity of this amenity area for residents and visitors to Tramore. Policy BDO7 supports

the preparation and implementation of management plans for the conservation of Natura 2000 sites which will mitigate for impacts on this area. Other material amendments screened in for AA include development of trails (MA 124, MA128) and renewable energy (MA77 and MA78). Project proposals supported by these policies will also be subject to the range of robust policies for protection of and assessment of impacts on the Natura 2000 Network set out in Chapter 9 along with Development Management Standards of the Plan. Material amendments have also been screened through the SEA and SFRA processes further strengthening the environmental resilience and compliance of the plan.

Table 10. Proposed Material Amendments Screened in for AA

Material Amendment Reference No.	**Potential for effects**	**Mitigation**
28.Amend paragraph 4 in Section 3.3.9 of Chapter 3 to include river leisure use such as a Maritime Museum and Public Baths	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.
52. Amend paragraph 11 of Section 4.10 Tourism and amend new Policy Objective ECON 22 in Chapter 4 'Tourism Accommodation/ Camp Sites' including; To maximise the potential of Waterford as a cruise ship destination.	Intensification of cruise ship traffic to Waterford Harbour could require dredging with consequent impacts on water quality and fish species.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies C&M06, BG09 and BGI I10 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
77. Amend paragraph 4 in Section 6.4 'Energy' Chapter 6	Potential for impacts on coastal seabirds that are qualifying interests of Waterford's SPA network.	Policy BD08 to ensure protection of the favourable conservation status of Annexed species and integrity and habitat value of sites.
78. Amend Section 6.6 'Renewable Energy' Chapter 6	Potential for impacts on coastal seabirds that are qualifying interests of Waterford's SPA network.	Policy BD08 to ensure protection of the favourable conservation status of Annexed species and integrity and habitat value of sites.
80. Amend policy UTL 06	Potential for significant effects on the conservation	Policies BD02 and BD03 to ensure

	objectives for the qualifying interests of river SACs.	protection of water quality and the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
124 Amend Policy Objective BGI 06 Chapter 10	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.
128 Amend 'Amenity Management Policy Objectives' in Section 10.5	Construction of trails in or near Natura 200 sites can cause direct loss of habitat e.g. coastal grassland, dry heath and wet heath and bringing an increased level of usage to what were previously undisturbed areas that may impact on bird nesting sites	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.
129 BG20 Extension of the Waterford Suir Valley Railway from Bilberry to Waterford (Grattan Quay).	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.
149 Amend DM Policy Objective DM 3	Uncertain potential for significant effects on Annex 1 species such as Peregrine Falcon that may use nesting sites outside the SPA Network.	Policy BD08 to ensure protection of the favourable conservation status of Annexed species and integrity and habitat value of sites.
161 Cappoquin CPDO9	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Blackwater SAC	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network
162 Clonmel CE D06	Potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.

		Policies WQ01 and WQ02 to ensure protection of water quality.
169 PECDO10 Extend the settlement boundary of the village to the north.	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of Waterford Estuary depending on availability of WWT capacity to cater for expanding population.	Policies WQ01 and WQ02 to ensure protection of water quality. Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network.
174 WCD029 DO29 – Ballinakill – New residential lands to the east of Kings Channel Estate (Island Land Cul-De Sac) Local Road L55289 and north of Bal;inakill Crescent Local Road L 55285 may facilitate Low Density Residential Development/ Serviced Sites.	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increase discharge of surface water to combined storm water outfall.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
174 WCD032 DO32 – Knockboy – Sections of new residential lands to the north of the Dunmore Road R683 at the River Cottage can facilitate Low Density Residential Development/ Serviced Sites.	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increased discharge of surface water to combined storm water outfall.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 BOS1 Ballyduff	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Blackwater SAC from increase discharge of surface water in a flood zone.	Policies BD02 and BD03 to ensure protection of water quality and the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 PTOSO1 Portlaw	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Clodiagh SAC.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the

		Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 OPSO6	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 OPSO9	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 OPS17	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
186 OPS19	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increased discharge of surface water.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
354 Islandview	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the

	increased discharge of surface water to combined storm water outfall.	Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
327 Knockboy	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increased discharge of surface water to combined storm water outfall.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.
294 Tramore	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of Tramore Sand Dunes and Back Strand SAC and SPA.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policy BD07 – preparation of management plans for Natura 2000 sites.
203 Clonmel Environs	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increase discharge of surface water in a flood zone.	Policies BD05 and BD06 to ensure protection of the favourable conservation status and integrity of the Natura 2000 Network. Policies WQ01 and WQ02 to ensure protection of water quality.

6. Screening Assessment of proposed modifications to final plan

A total of 188 submissions were received during the public consultation stage on the Material Amendments between March 3rd and April 1st 2022. The Chief Executive's Report detailing response to submissions was issued to the elected members on April 22nd 2022. Having considered the proposed material alterations and the Chief Executive's Report, the elected members resolved to make the Plan with a number of proposed amendments. AA screening was carried out on 9 land use zoning modifications and none screened in for AA. The final Waterford City and County Development Plan 2022-2028 was adopted by Waterford City and County Council on June 7th 2022.

Table 11. Screening of proposed amendments to Draft Waterford City and County

Development Plan 2022-2028

Reference	Location	AA Screening
02/(MA 251/UID3675)	Lemybrien -extend settlement boundary to zone 0.7 ha rural village lands to the S of N25.	No potential for significant effects on the conservation objectives for the qualifying interests of Comeragh Mountains SAC or the wider Natura 2000 Network. Screens out for AA.
03 (MA 268/ UID 3685)	Portlaw – Spring Hill Zone 0.27 ha lands R1 outside flood zones A and B	Adequate WWT capacity available to cater for population targets in the plan .No potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC or the wider Natura 2000 Network. Screens out for AA.
04 (MA 225 UID 3666)	Dungarvan-Ballinroad Rezone 1.9ha from Strategic Residential Reserve (SRR) to New Residential (R1)	No potential for significant effects on the conservation objectives for the qualifying interests of Dungarvan Harbour SPA or the wider Natura 2000 Network. Screens out for AA.
05/ (MA 211 UID 3669)	Dungarvan-Abbeyside Rezone 2ha from Open Space (OS) to New Residential (R1) Phase 2 lands.	No potential for significant effects on the conservation objectives for the qualifying interests of Dungarvan Harbour SPA or the wider Natura 2000 Network. Screens out for AA.
06/ (MA 222 UID 3653)	Dungarvan-Duckspool Rezone 2.8ha from Open Space (OS) to Strategic Residential Reserve (SRR).	No potential for significant effects on the conservation objectives for the qualifying interests of Dungarvan Harbour SPA or the wider Natura 2000 Network. Screens out for AA.
07 (MA 223 UID 3664)	Dungarvan-An Crompán Zone 1.6 ha from High Amenity (HA) to Strategic	No potential for significant effects on the conservation objectives for the qualifying interests of Dungarvan Harbour SPA or the wider Natura 2000 Network. Screens out for AA.

	Residential Reserve (SRR)	
08 (MA 281 UID 3688)	Tallow Extend the settlement boundary by 3.75 ha to the west in Townparks West.	No potential for significant effects on the conservation objectives for the qualifying interests of River Blackwater SAC or the wider Natura 2000 Network. Screens out for AA.
09/MA 284 UID 3659	Tramore-Newtown Zone 0.47 from Open Space (OS) to Existing Residential (RS)	No potential for significant effects on the conservation objectives for the qualifying interests of Mid-Waterford Coast SPA, Tramore Dunes SAC or Tramore Back Strand SPA. Screens out for AA
11/MA205 UID 3700[9]	Crooke Extend the settlement boundary by 0.32 ha	Currently envisaged there is wwt capacity available. No potential for significant effects on the conservation objectives for the qualifying interests of Waterford Harbour SAC. Screens out for AA
12/MA 186	DTOS01 Glanbia Site, Davitt's Quay, Dungarvan Retail development may be appropriate on site where compliant with the retail strategy.	No potential for significant effects on the conservation objectives for the qualifying interests of Dungarvan Harbour SPA or the wider Natura 2000 Network. Screens out for AA.
13/MA 22	Insertion of amended narrative , Table 2.3 and phasing maps within Section 2.14	Screens out for AA.
14/ MA 158	Insertion of footnote to Table 11 Zoning Matrix re social and affordable housing.	Screens out for AA.

[9] Note Resolution No 10 was withdrawn on day of Adoption of Development Plan and thus not include in screening of final modifications to the plan.

7. Conclusion

A Habitats Directive Screening Assessment was carried out on the Draft Waterford City and County Development Plan 2022-2028, proposed material amendments to the plan and proposed final modifications to the plan. A review of conservation objectives and threats to site integrity for the range of Natura 2000 sites in the city and county was undertaken to identify sites that may be impacted by policies, objectives and land use zonings in the Draft Development Plan, proposed material amendments and proposed amendments to the final plan. Zoned settlements that are located adjacent to river and coastal SACs and SPAs were considered to be the key areas for assessment. Threats to site integrity such as infrastructure, habitat loss and species disturbance, water quality and protection of annexed species and habitats outside the designated boundaries of the Natura 2000 Network were identified as key issues in maintaining the favourable conservation status of the network. The majority of policies, objectives and zonings in the Draft Plan and proposed material amendments screened out for AA. However, a number of policies and proposed material amendments were assessed as having potential for significant effects on Natura 2000 sites and screened in for a Stage 2 Appropriate Assessment. Draft Plan policies were reviewed with recommended wording amendments to mitigate for potential for significant effects. Material amendments were reviewed to assess the potential for adverse impacts on the integrity of Waterford's Natura 2000 Network. Review of the Settlement Strategy shows there is adequate waste water capacity to cater for projected population growth in Waterford City, Dungarvan, Tramore, Lismore, Cappoquin, Portlaw, Kilmacthomas and Dunmore East. Infrastructure projects and future plans within the framework of the Draft Development Plan and proposed material amendments will be subject to AA in their own right and policies and development management standards of the plan requiring environmental compliance were considered robust and comprehensive to ensure no adverse impacts on the integrity of Natura 2000 sites.

The NIR has examined and analysed with best scientific knowledge the potential sources and pathways for adverse impacts on the Natura 2000 Network in Waterford. It is objectively concluded following an examination, analysis and evaluation of the potential impacts associated with the Draft Plan and material amendments to the draft plan that the Waterford City and County Development Plan 2022-2028 will not adversely affect the integrity of the Natura 2000 Network either alone or in-combination with other plans or projects.

This assessment should be read in conjunction with the Waterford City and County Development Plan 2022-2028 and the accompanying Environmental Report prepared in fulfilment of the SEA process.

Bibliography

Bryophytes and Metallophyte Vegetation on Metalliferous Mine-Waste in Ireland. Report to NPWS of a Survey in 2008 by D.T. Holyoak.

Department of Environment, Heritage and Local Government (2008) The Status of EU Protected Habitats and Species in Ireland

Draft Sub-Basin Management Plans for Freshwater Pearl Mussel in - Blackwater, Licky and Clodiagh Catchments

EPA (2020) Ireland's Environment 2020

European Commission (2018) Assessment of plans and projects significantly affecting Natura 200 sites- methodological guidance on the provisions of Article 6(3) and 6 (4) of the Habitats Directive 92/43/EEC.

European Commission (2002) Managing Natura 2000 sites The provisions of Article 6 of the Habitats Directive 92/43/EEC.

National Survey of Native Woodland 2003-2008

National Survey of Upland Habitats (Pilot Survey Phase, 2009-2010) Site Report No. 3: Comeragh Mountains cSAC

Saltmarsh Monitoring Project 2018-2019

Southern River Basin District Draft Management Plan (2018-2021)

The Status of EU Protected Habitats and Species in Ireland 2019

Waterford Chough Survey 2008

Widlife Manual 78 The Irish Semi-natural Grasslands Survey 2007-2012

Widlife Manual 105 Calaminarian Grassland Monitoring 2018

Wildlife Manuals 108 Saltmarsh Monitoring Project 2017-2018

Saltmarsh Monitoring Project 2007-2008

Appendix 1 Screening of Material Amendments to Draft Plan

Chapter	Amendment Ref	AA Screening Determination
1. Waterford and the Development Plan	1- Text changes to the Vision statement in Section 1.1	Screens out for AA
	2-Text insertion at end of Section 1.1	Screens out for AA
	3-Text changes to the Policy Context in Section 1.3.1	
	4-Text changes to the Policy Context in Section 1.3.2	Screens out for AA
	5-Text changes to the Policy Context in Section 1.3.3	Screens out for AA
	6. Amend paragraph 2 of Section 1.6	Screens out for AA
	7. Insert image in Section 1.6	Screens out for AA
	8. Text changes Section 1.7.1	Screens out for AA
	9. Text changes Section 1.7.2	Screens out for AA
	10. Text changes Section 1.7.3	Screens out for AA
	11. Text changes Section 1.7.4	Screens out for AA
	12. Text changes Section 1.7.5	Screens out for AA
2**. Spatial Vision and Core Strategy**	13. Text additions to Section 2.0	Screens out for AA
	14. Amend Section 2.1 'Core Strategy Strategic' Aim No 13	Screens out for AA

	15. Amend paragraph 3 of Section 2.2 'Core Strategy Strategic'	There is adequate waste water capacity to cater for projected population growth in the Core Strategy. No potential for significant effects on the conservation objectives of the qualifying interests of the Natura 2000 Network. Screens out for AA. Screens out for AA
	16. Amend paragraph 3 of Section 2.8	Screens out for AA
	17. Amend Section 2.9	Screens out for AA
	18**.** Amend Section 2.10	Screens out for AA
	19**.** Amend Section 2.10	Screens out for AA
	20.Amend Section 2.12	Screens out for AA
	21.Amend Section 2.13	Screens out for AA
	22**.** Amend Section 2.14	Screens out for AA
	23. Amend narrative table 2.3 and phasing maps in Section 2.14	Screens out for AA
	24. Amend Policy CS16	Screens out for AA
3. Waterford City and MASP	25. Amendments to Table 3.1 and Section 3.2	No potential for significant effects on the conservation objectives for the qualifying interests of the Natura 2000 Network. Screens out for AA
	26. Text addition in Section 3.3.1	Screens out for AA
	27. Text addition in Section 3.3.3	Screens out for AA
	28. Amendment Section 3.3.3	Screens out for AA
	28.Amend paragraph 4 in Section 3.3.9	Screens in for AA
	30. Amendment Section 3.4.1	Screens out for AA
	31. Amendment Table 3.2	Screens out for AA
	32. Amendment Table 3.3	Screens out for AA
	33. Amend Policy W City Retail 08	Screens out for AA
	34. Amend Policy W City 19	Screens out for AA
	35. Amend Policy W City 20	Screens out for AA
	36. Amend Policy W City 26	Screens out for AA
Chapter 4- Economy, Education and Retail	37. Amend Strategic Objective 4.	No potential for significant effects on the conservation objectives for the qualifying interests of the Natura 2000 Network. Screens out for AA
	38. Amend Section 4.0	Screens out for AA
	39. Amend Section 4.4	
	40. Amend ECON 01	Screens out for AA

	41. Amend ECON 03	Screens out for AA
	42. Amend ECON 04	Screens out for AA
	43. Amend ECON 06	Screens out for AA
	44. Amend ECON 09	Screens out for AA
	45. Amendment to Section 4.7	Screens out for AA
	46. Amend ECON 12	Screens out for AA
	47. Amend ECON 13	Screens out for AA
	48. Amend ECON 14	Screens out for AA
	49. Amend ECON 17	Proposed SIFP will be subject to AA and SEA Screening as part of the plan making process. Screens out for AA
	50. Amendment to Section 4.8	Screens out for AA
	51. Amend ECON 19	Screens out for AA
	52. Amendment to Section 4.9	Screens out for AA
	53. Amend paragraph 11 of Section 4.10 Tourism and amend new Policy Objective ECON 22 'Tourism Accommodation/ Camp Sites' including; To maximise the potential of Waterford as a cruise ship destination.	Potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC and River Nore/Barrow (Waterford Estuary) SAC cannot be ruled out. Screens in for AA.
	54. Amendment to Section 4.11	Screens out for AA
	55. Amend EDU02	Screens out for AA
	56. Amend EDU03	Screens out for AA
	57. Amendment to Section 4.12	Screens out for AA
	58. Amend Table 4.1	Screens out for AA
	59. Amended Policy Objective Retail 02	Screens out for AA
	60. Additional Policy Objective Retail 06 'Retail Impact'	Screens out for AA
Chapter 5- Transport and Mobility	61. Amend Transport and Mobility Strategic Objectives No.3	Screens out for AA
	62. Amend Policy Objective Trans 01	Screens out for AA
	63. Amend paragraph 2 of Section 5.2	Screens out for AA
	64. Amend Section 5.2 re County Transport Plan	Screens out for AA
	65. Amend Policy Objective Trans 04	Screens out for AA
	66. Amend Policy Objective Trans 06	Screens out for AA
	67. Amend Section 5.4 'Achieving Modal Change'	Screens out for AA

	68. Amend Policy Objective Trans 09	Screens out for AA
	69. Amend Transport Mode Table	Screens out for AA
	70. Amend Policy Objective Trans 14	Screens out for AA
	71. Amend Policy Objective Trans 22	Screens out for AA
	72. Amend Policy Objective Trans 23	Screens out for AA
	73. Text changes to paragraph 2 of Section 5.9	Screens out for AA
	74. Amend Policy Objective Trans 46	Screens out for AA
	75. Amend Policy Objective Trans 50	Screens out for AA
	76.Amend Policy Objective Trans 54	Screens out for AA
Chapter 6- Utilities, Infrastructure, Energy and Communication	77. Amend and update Table 6.0 Existing Water Services Infrastructural Capacities	Screens out for AA
	78. Amend paragraph 4 in Section 6.4 'Energy'	Screens in for AA
	79. Amend Section 6.6 'Renewable Energy'	Screens in for AA
	80. Amend Section 6.8 ' Waste Services/ Infrastructure'	Screens out for AA
	80. Amend Policy Objective UTL 06	Screens out for AA
	81. Amend Policy Objective UTL 08 'Protection of Water Resources'	Screens out for AA
	82.Amend Policy Objective UTL 09	Screens out for AA
	83. Amend Policy Objective UTL 10 'Flooding/ SFRA	Screens out for AA
	84. Amend Policy Objective UTL 13 'Renewable Energy'	All renewable energy proposals will be subject to AA Screening at project level. Proposed decommissioning and restoration plan including habitat restoration may provide positive opportunities for biodiversity. Screens out for AA at plan level.
	85. Amend Policy Objective UTL 14	Screens out for AA
	86. Amend Policy Objective UTL 16	Screens out for AA
	87. Amend Policy Objective UTL 17	Screens out for AA
	88. Amend Policy Objective UTL 21	Screens out for AA

	89. Insert a new Policy Objective UTL 24	Screens out for AA
Chapter 7-Housing and Sustainable Communities	90 Amend Policy H 01	Screens out for AA
	91 Amend Section 7.1 and Policy Objective H05	No potential for significant effects on the conservation objectives of the Natura 2000 Network. Screens out for AA.
	92 Amend Section 7.3	Screens out for AA
	93 Amend Policy H12	Screens out for AA
	94 Amend Section 7.6	Screens out for AA
	95 Amend Policy H17	Screens out for AA
	96 Amend Policy H18	Screens out for AA
	97 Amend Policy H20	Screens out for AA
	98 Add additional Policy Objective after H22	Screens out for AA
	99 Amend Section 7.11	Screens out for AA
	100 Amend Section 7.11.2	Screens out for AA
	101. Amend paragraph 2 of Section 7.18	Screens out for AA
	102 Amend paragraph Section 7.25	Screens out for AA
	103 Amend Section 7.26	Screens out for AA
	104 Amend Policy SC 03	Screens out for AA
	105 Amend Policy SC06	Screens out for AA
	106 Amend Policy SC09	Screens out for AA
	107 Amend Policy SC15	Screens out for AA
	108 Amend Policy SC 26	Screens out for AA
	109 Amend Policy SC 27	Screens out for AA
	110 Amend Policy SC30	Screens out for AA
	111 Amend Policy SC31	Screens out for AA
	112 Amend Policy SC33	Screens out for AA
	113 Amend Policy SC36	All access proposals will be subject to AA Screening at project level. Policy includes "subject to the Birds and Habitats Directives". Screens out for AA at plan level.
	114 Amend Policy SC41	Screens out for AA
Chapter 8-Placemaking	115 Amend Policy Place 10	Screens out for AA
	116 Amend Policy Place 17	Screens out for AA
	117 Amend Policy Place 26	Screens out for AA
Chapter 9-Climate Action, Biodiversity and Environment	118 Amend Policy CA01	Screens out for AA
	119 Amend Policy BD02	Screens out for AA
Chapter 10- Landscape	120 Amend Section 10.1	Screens out for AA
	121 Amend policies C&M 01	Screens out for AA
	122 Amend policies C&M03	Screens out for AA
	123 Amend Policy G02	Screens out for AA
	124 Amend Policy Objective BGI 06	Screens in for AA
	125 Amend Policy BGI09	Screens out for AA

	126 Amend paragraph 1 of Section 10.4	Screens out for AA
	127 Amend Table 10.0 'Waterford Trails'	Screens out for AA
	128 Amend Policy BGI 10	Screens in for AA
	129 Amend 'Amenity Management Policy Objectives' in Section 10.5	Screens in for AA
Chapter 11- Heritage	130 Amend Section 11.5 addition of new policy on EcIA	Screens out for AA
	131 Additional text on industrial heritage	Screens out for AA
	132 Amend Section 11.17 'Archaeology'	Screens out for AA
	133 Amend Policy AH 03	Screens out for AA
	134 Amend Policy AH 04	Screens out for AA
	135 Amend Policy AH 05	Screens out for AA
	136 Amend Section 11.20 'Historic Graveyards	Screens out for AA
	137 Amend Chapter 11 by adding an additional section entitled 'Community Archaeology' with associated Policy Objective AH09 & AH10	Screens out for AA
	138 Additional section titled 'Underwater Archaeology'	Screens out for AA
Development Management Standards	139 Amend General Density Text Section 3.2	Screens out for AA
	140 Amend Objective DM05	Screens out for AA
	141 Amend Text Section 3.3	Screens out for AA
	142 Amend Text within Table	Screens out for AA
	143 Amend Section 4.1 'Naming of Residential Developments	Screens out for AA
	144 Amend text Paragraph 1 of Section 5.24	Screens out for AA
	145 Text addition	Screens out for AA
	146 Amend Objective DM 16	Screens out for AA
	147 Amend text Section 6.4	Screens out for AA
	148 Amend Objective DM 34	Screens out for AA
	149 Insert Objective DM 35	Screens out for AA
	150 Amend Table 5	Screens out for AA
	151 Amend Objective DM 37	Screens out for AA
	152 Amend Section 9.4	Screens out for AA
	153 Amend Option 3 of Section 9.4	Screens out for AA
	154 Amend Objective DM 53	Screens out for AA
	155 Amend Section 11.2	Extension of durations on extant permissions will be subject AA screening the DM

		level. Screens out for AA at plan level.
	156 Amend Section 11.3	Screens out for AA
	157 Update Table 10	Screens out for AA
	158 Update Table 11	Screens out for AA
Appendix 2 Dev Objectives	159 Additional General Policy Objective	Screens out for AA
	160 Ardmore D011,D012, D013	Screens out for AA
	161 Cappoquin CPDO9	Screens in for AA
	162 Cappoquin CPDO10	Screens out for AA
	163 Clonmel CLW04	Screens out for AA +ive
	163 Clonmel CLW05	Screens out for AA
	163 Clonmel CLW06	Screens in for AA
	164 Dungarvan DGD06	Screens out for AA
	165 Dungarvan DGDO15-21	Screens out for AA
	166 Dunmore East DMDO12-DMDO15	Screens out for AA
	167 Gaeltacht GDDO08	Screens out for AA
	168 Kill KLDO4-KLDO6	Screens out for AA
	169 Lemybrien LBKDO5	Screens out for AA
	169 Passage East PECD10	Screens out for AA
	171 Piltown PKD02	Screens out for AA
	172 Portlaw PLD09	Screens out for AA
	173 Tallow TWDO12 & 13	Screens out for AA
	174 Tramore TRDO12 & 13	Screens out for AA
	175 Waterford City DO18-33	Screens out for AA
	WCD029	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increase discharge of surface water to combined storm water outfall. Screens in for AA
	WCD032	Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC from increase discharge of surface water to combined storm water outfall. Screens in for AA
	176 Amend Map 3	Screens out for AA
Appendix 7	177 Amend Appendix 2	Screens out for AA
Appendix 9 RPS	178-179 Deletions to the RPS	Screens out for AA
Appendix 11	180 Additions to TPOs	Screens out for AA
	181 Amendments to list of GH sites	Screens out for AA
	182 Listing of St. John's College Wood as a Site of Local Biodiversity Interest	Screens out for AA

Appendix 12 Airport Masterplan	183 Insertion of text in Section 1.3	Screens out for AA
Appendix 14 Infrastructure Capacity	184 Amend Section 2.2	Screens out for AA
Appendix 17	185 Summary table insertion	Screens out for AA
Appendix 19	186 Amendments to list of GH sites in SEA ER	Screens out for AA
Appendix 21	187 Regeneration and Opportunity Sites	
	AOS1 Perks Site	Screens out for AA
	BOS1 Ballyduff	Screens in for AA
	BYOS1	Screens out for AA
	BUOS1	Screens out for AA
	COS1	Screens out for AA
	KMOS1	Screens out for AA
	KMOS2	Screens out for AA
	KOS1	Screens out for AA
	POS1	Screens out for AA
	ROS1	Screens out for AA
	TOS1	Screens out for AA
	TOS2	Screens out for AA
	LOPSO1	Screens out for AA
	LOPSO2	Screens out for AA
	LOPSO3	Screens out for AA
	DUOS1	Screens out for AA
	PTOSO1	Screens in for AA
	TROSO1	Screens out for AA
	TROSO2	Screens out for AA
	TROSO3	Screens out for AA
	TROSO4	Screens out for AA
	TROSO5	Screens out for AA
	TROSO6	Screens out for AA
	TROSO7	Screens out for AA
	DTOSO1	Screens out for AA
	DTOSO2	Screens out for AA
	DTOSO3	Screens out for AA
	DTOSO4	Screens out for AA
	DTOSO5	Screens out for AA
	DTOSO6	Screens out for AA
	OPSO1	Screens out for AA
	OPSO2	Screens out for AA
	OPSO3	Screens out for AA
	OPSO4	Screens out for AA
	OPSO5	Screens out for AA
	OPSO6	Screens in for AA
	OPSO7	Screens out for AA
	OPSO8	Screens out for AA
	OPSO9	Screens in for AA
	OPS10	Screens out for AA
	OPS11	Screens out for AA
	OPS12	Screens out for AA
	OPS13	Screens out for AA
	OPS14	Screens out for AA

	OPS15	Screens out for AA
	OPS16	Screens out for AA
	OPS17	Screens in for AA
	OPS18	Screens out for AA
	OPS19	Screens in for AA
	OPS20	Screens out for AA
	OPS21	Screens out for AA
	OPS22	Screens out for AA
	OPS23	Screens out for AA
	OPS24	Screens out for AA
	OPS25	Screens out for AA
	OPS26	Screens out for AA
	OPS27	Screens out for AA
	OPS28	Screens out for AA
	OPS29	Screens out for AA
	OPS30	Screens out for AA
Appendix 22	Inclusion of RMP as Appendix to Plan	Screens out for AA

Appendix 2 Screening of Land Use Zonings to Draft Plan

UID	Location	Amendment	AA
1	Carrick on Suir	HA	Screens out for AA
3717	Portlaw	HA	Screens out for AA
3718	Portlaw	SRR	Screens out for AA
3041	Portlaw	HA	Screens out for AA
3044	Portlaw	HA	Screens out for AA
3720	Portlaw	R1	Screens out for AA
3680	Portlaw	R1	Screens out for AA
3551	Portlaw	HA	Screens out for AA
3549	Portlaw	HA	Screens out for AA
3242	Portlaw	SRR	Screens out for AA
3049	Portlaw	HA	Screens out for AA

2932	Portlaw	RS	Screens out for AA
3446	Portlaw	RS	Screens out for AA
3683	Portlaw	RS	Screens out for AA
3042	Portlaw	HA	Screens out for AA
722	Portlaw	RS	Screens out for AA
857	Portlaw	HA	Screens out for AA
3685	Portlaw	R1	Screens out for AA
3687	Portlaw	R1	Screens out for AA
3241	Portlaw	SRR	Screens out for AA
3619	Greenway Manor Hotel	TM	Screens out for AA
3709	Butlerstown	CI	Screens out for AA
3626	Waterford Industrial Estate	GB	Screens out for AA
3375	Ballybeg	R1	Screens out for AA
3691	Ballybeg	HA	Screens out for AA
3312	Ballybeg	CI	Screens out for AA
3598	Ballybeg	CI	Screens out for AA
3369	Kilbarry	R1	Screens out for AA
3582	Carrigrod	RS	Screens out for AA
3579	Carrigrod	RS	Screens out for AA
3709	Carrigrod	R1	Screens out for AA
3711	Carrigrod	R1	Screens out for AA
3498	Lisduggan	R1	Screens out for AA
2978	Watersgate	R1	Screens out for AA
3583	Carrickphierish	RS	Screens out for AA
3584	Carrickphierish	R1	Screens out for AA
3585	Carrickphierish	R1	Screens out for AA
3587	Gibbethill	HA	Screens out for AA
3469	Gibbethill	HA	Screens out for AA
3467	Gibbethill	HA	Screens out for AA
3494	Logloss	CI	Screens out for AA
3470	Gibbethill	OS	Screens out for AA
3495	Rathfadden	RS	Screens out for AA
3498	Lisduggan	R1	Screens out for AA
3500	Christendom	R1	Screens out for AA
3530	Waterford City	TC	Screens out for AA
3523	Waterford City	TC	Screens out for AA
2285	Ballynakill	OS	Screens out for AA
3522	Williamstown	TM	Screens out for AA
3540	Kilcohan	R1	Screens out for AA
3545	Williamstown	GB	Screens out for AA
359	Grantstown	R1	Screens out for AA
3706	Islandview	R1	Screens in for AA
1537	Knockboy	R1	Screens in for AA
3573	Knockboy	SRR	Screens out for AA Long term residential zoning
3701	Ballygunner	OS	Screens out for AA
3613	Ballygunner	OS	Screens out for AA
3690	Grantstown	RS	Screens out for AA
3570	Blenheim	HA	Screens out for AA
3712	Blenheim	HA	Screens out for AA

3631	Crooke	RV	Screens in for AA
3633	Crooke	RV	Screens out for AA
3700	Crooke	RV	Screens out for AA
2993	Dunmore East	HA	Screens out for AA
3639	Dunmore East	HA	Screens out for AA
3637	Dunmore East	RE	Screens out for AA
3636	Dunmore East	HA	Screens out for AA
574	Dunmore East	RS	Screens out for AA
2993	Dunmore East	HA	Screens out for AA
3284	Dunmore East	HA	Screens out for AA
3292	Dunmore East	HA	Screens out for AA
3502	Dunmore East	RS	Screens out for AA
3501	Dunmore East	SRR	Screens out for AA
3293	Dunmore East	SRR	Screens out for AA
3282	Dunmore East	R1	Screens out for AA
3547	Dunmore East	R1	Screens out for AA
3504	Dunmore East	TM	Screens out for AA
3518	Dunmore East	TM	Screens out for AA
3000	Dunmore East	HA	Screens out for AA
3002	Dunmore East	HA	Screens out for AA
3647	Dunmore East	RS	Screens out for AA
3635	Dunmore East	CI	Screens out for AA
3267	Dunmore East	HA	Screens out for AA
3012	Dunmore East	R1	Screens out for AA
3510	Dunmore East	R1	Screens out for AA
652	Tramore	RE	Screens out for AA
2196	Tramore	RE	Screens out for AA
1748	Tramore	HA	Screens out for AA
3089	Tramore	RE	Screens out for AA
3594	Tramore	OS	Screens out for AA
3515	Tramore	RS	Screens out for AA
3592	Tramore	TM	Screens in for AA
3532	Tramore	TC	Screens out for AA
3533	Tramore	TC	Screens out for AA
3519	Tramore	RS	Screens out for AA
3506	Tramore	RS	Screens out for AA
3512	Tramore	RS	Screens out for AA
3557	Tramore	HA	Screens out for AA
3069	Tramore	HA	Screens out for AA
3068	Tramore	SRR	Screens out for AA
3066	Tramore	HA	Screens out for AA
3555	Tramore	HA	Screens out for AA
3063	Tramore	HA	Screens out for AA
3064	Tramore	HA	Screens out for AA
3061	Tramore	HA	Screens out for AA
3060	Tramore	HA	Screens out for AA
3406	Tramore	RS	Screens out for AA
3496	Tramore	R1	Screens out for AA
3089	Tramore	RE	Screens out for AA
3660	Tramore	CI	Screens out for AA
3659	Tramore	RS	Screens out for AA
3383	Tramore	R1	Screens out for AA

3384	Tramore	R1	Screens out for AA
3074	Tramore	RS	Screens out for AA
3067	Tramore	HA	Screens out for AA
651	Tramore	RE	Screens out for AA
3066	Tramore	HA	Screens out for AA
3406	Tramore	RS	Screens out for AA
3643	Tramore	RE	Screens out for AA
3406	Tramore	RS	Screens out for AA
3535	Tramore	RE	Screens out for AA
3065	Tramore	HA	Screens out for AA
3552	Tramore	HA	Screens out for AA
3660	Tramore	CI	Screens out for AA
3520	Tramore	HA	Screens out for AA
3526	Tramore	RE	Screens out for AA
3528	Tramore	RE	Screens out for AA
56	Cloncoskoran	CI	Screens out for AA
66	Ballinroad	HA	Screens out for AA
132	Ballinroad	HA	Screens out for AA
108	Ballinroad	HA	Screens out for AA
3665	Ballinroad	HA	Screens out for AA
3673	Ballynacourty	TM	Screens out for AA
922	Ballynacourty	TM	Screens out for AA
3666	Ballinroad	R1	Screens out for AA
3664	Dungarvan	HA	Screens out for AA
3670	Dungarvan	SRR	Screens out for AA
3669	Dungarvan	R1	Screens out for AA
3653	Dungarvan	SRR	Screens out for AA
90	Dungarvan	R1	Screens out for AA
3589	Dungarvan	R1	Screens out for AA
117	Dungarvan	SRR	Screens out for AA
3417	Dungarvan	RS	Screens out for AA
3488	Dungarvan	R1	Screens out for AA
3252	Dungarvan	SRR	Screens out for AA
3250	Dungarvan	R1	Screens out for AA
3651	An Rinn	R1	Screens out for AA
3604	An Rinn	RS	Screens out for AA
3492	An Rinn	RS	Screens out for AA
3601	An Rinn	CI	Screens out for AA
3569	An Rinn	RS	Screens out for AA
3491	An Rinn	RS	Screens out for AA
3604	An Rinn	RS	Screens out for AA
3536	An Rinn	RS	Screens out for AA
3538	An Rinn	R1	Screens out for AA
3567	An Rinn	R1	Screens out for AA
3493	An Rinn	RS	Screens out for AA
3607	Ardmore	RV	Screens out for AA
3618	Ardmore	RV	Screens out for AA
3738	Cappoquin	RV	Screens out for AA
3561	Lismore	HA	Screens out for AA
3562	Lismore	SRR	Screens out for AA
509	Lismore	HA	Screens out for AA
518	Lismore	HA	Screens out for AA
498	Lismore	HA	Screens out for AA

3053	Lismore	HA	Screens out for AA
3054	Lismore	HA	Screens out for AA
3559	Lismore	HA	Screens out for AA
3688	Tallow	RV	Screens out for AA
3742	Clonmel	SRR	Lands are within a flood zone within catchment of River Suir. Uncertain potential for significant effects on the conservation objectives for the qualifying interests of River Suir SAC. Screens in for AA
3697	Clonmel	RS	Screens out for AA
3674	Kilmacthomas	RV	Screens out for AA
3675	Lemybrien	RV	Screens out for AA
3606	Old Parish	SRR	Screens out for AA
3588	Old Parish	R1	Screens out for AA

Appendix 21
Regeneration and Opportunity Sites

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

Appendix 21

Waterford City and County

Regeneration and Opportunity Sites

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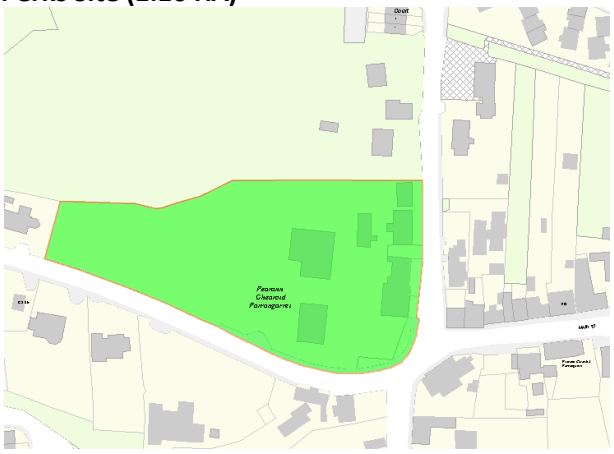
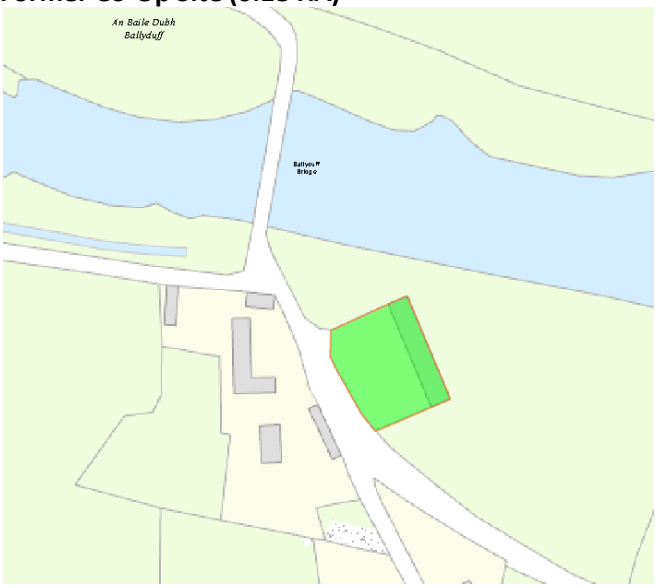
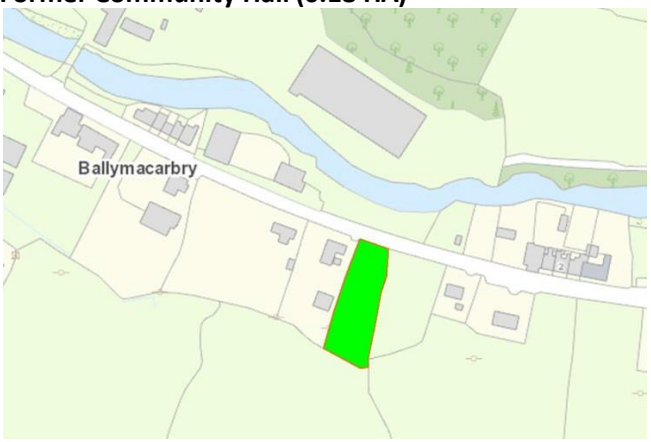
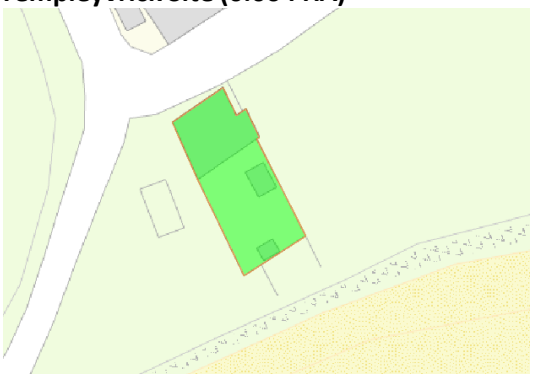
General Objectives for Regeneration	
	• All new development must be of an appropriate size, scale, character, have high quality public realm, incorporate excellent architectural/ urban design and place-making principles as outlined in Chapter 8 of the Development Plan, Volume 2 Development Management and Appendix 5 – Placemaking Strategy, include hard and soft landscaping, SUDs and nature based infrastructure where appropriate, along with visual improvements to the streetscape. • Where appropriate it is an objective to protect the vistas and settings of protected structures and the streetscape by the retention of vernacular houses, rubblestone walls, water pumps, post boxes etc., as identified on the NIAH survey. • Any development which is in an Architectural Conservation Area shall have regard to the planning guidance set out in Chapter 11 of the Development Plan. • In addition to compliance with other national, regional and local development plan policies and development management standards, all developments on regeneration/opportunity sites will be required to demonstrate that: 1) The scale of proposed development is consistent with the class/ typology of settlement as set out in the Settlement Strategy; 2) The proposal is compatible with the context of the site in terms of character, scale and density; 3) The proposal will contribute to the visual and general/residential amenity of the site and its built quality; 4) The proposal for any site should be accompanied by a program for developing out the site in terms of access to public water/wastewater, innovative solutions to wastewater such as integrated constructed wetlands and other services along with a completion timeframe; and, 5) The proposal will not prejudice the future development of land in its vicinity and the expansion of public amenities or community land uses such as schools. • The vision statement for each opportunity site should be read in conjunction with Policy Objective H05 'Regeneration Policy Objectives'.

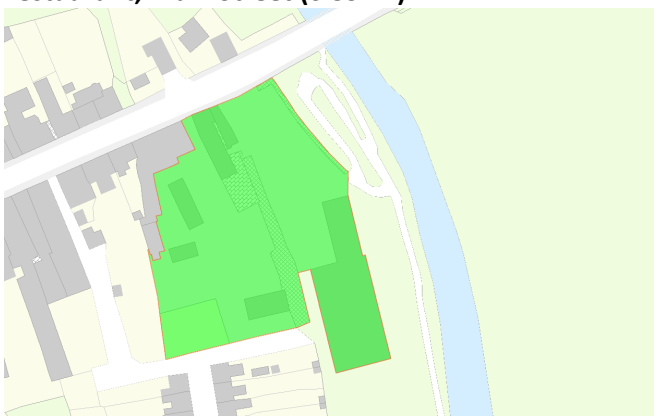
Ardmore		
AOS1	**Perks Site (1.16 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Potential Housing Yield.

Ballyduff West (Upper)		
BOS1	**Former Co-Op Site (0.18 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use (employment/ community). • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Potential Housing Yield

Ballymacarbry		
BYOS1	**Former Community Hall (0.18 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Potential Housing Yield

Bonmahon		
BUOS1	**Templeyvrick Site (0.064 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use (employment/ community). • Incorporate natural assets. • Green infrastructure links.

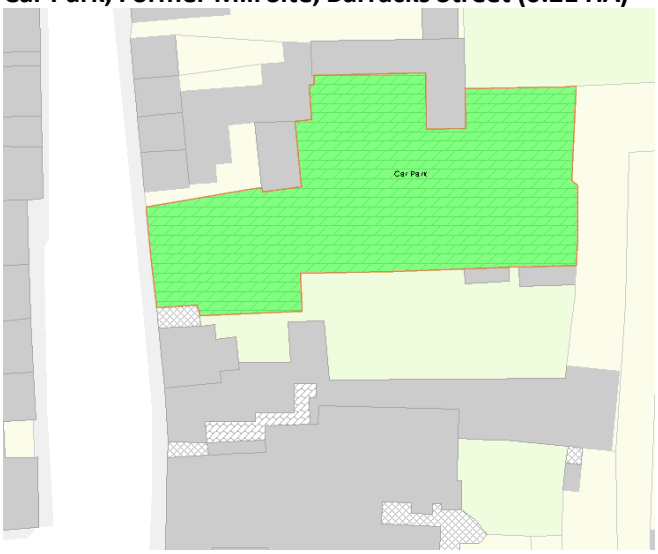
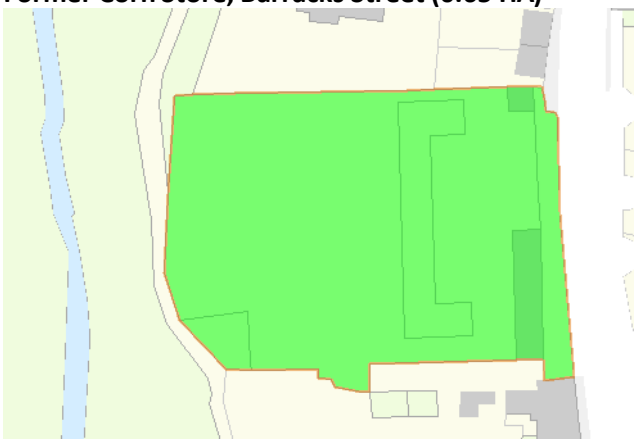
Cappoquin		
COS1	**Glanbia Site and Murray's Coal Yard, Barracks Street (0.48 HA)** 	***Vision*** • Further development of existing complex. • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Potential Housing Yield.

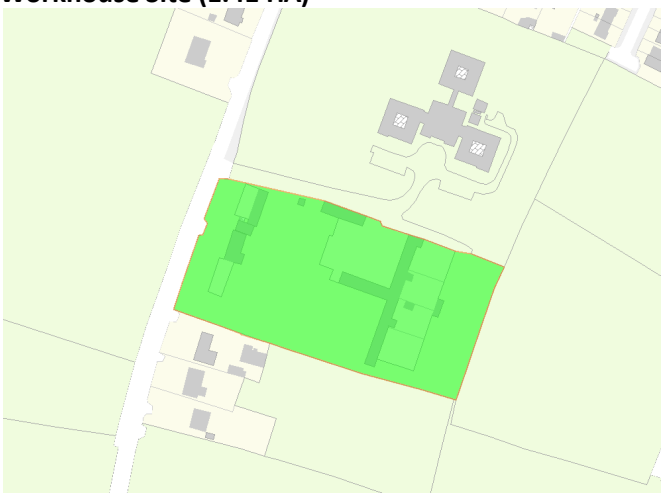
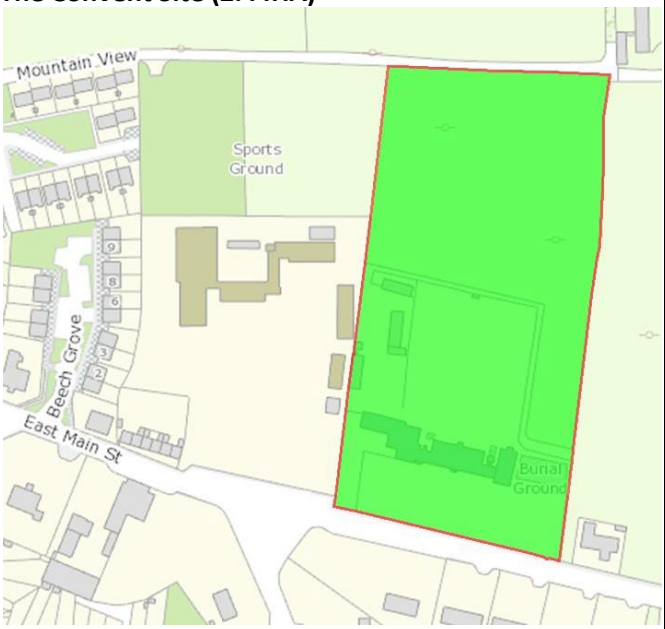
Kilmacthomas		
KMOS 1	**Former Workhouse Site (8.48 HA)** 	***Vision*** • Further development of existing complex. • Potential Landmark/ gateway to village. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Greenway link. • Potential Tourism Development. • Please see specific development objective KMD05 in Appendix 2 of the Development Plan.
KMOS 2	**Former mill and back lands at Keighery's Bar and Restaurant, Main Street (0.59HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Potential mixed use. • Incorporate natural assets. • Green infrastructure links to river. • Greenway link. • Potential Tourism/ Employment Development. • Back lands / infill. • Potential Housing Yield.

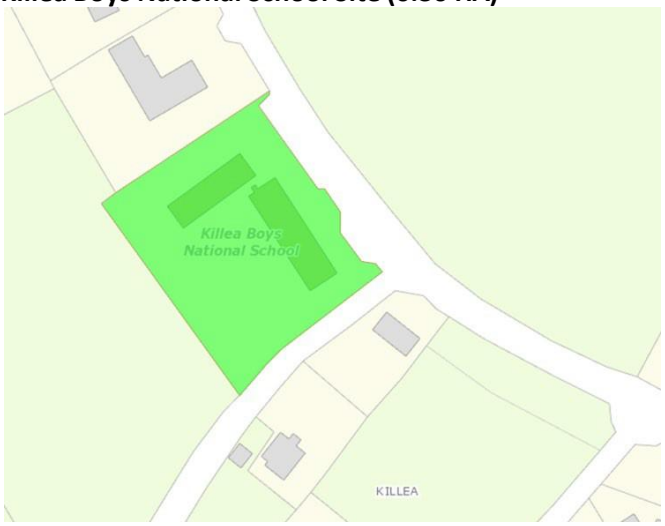
Kilmeaden		
KOS1	**Former Glanbia Site (4.41 HA)** 	***Vision*** • Further development of existing complex. • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure links. • Potential Housing Yield. • Please see specific development objective KLMD01 in Appendix 2 of the Development Plan.

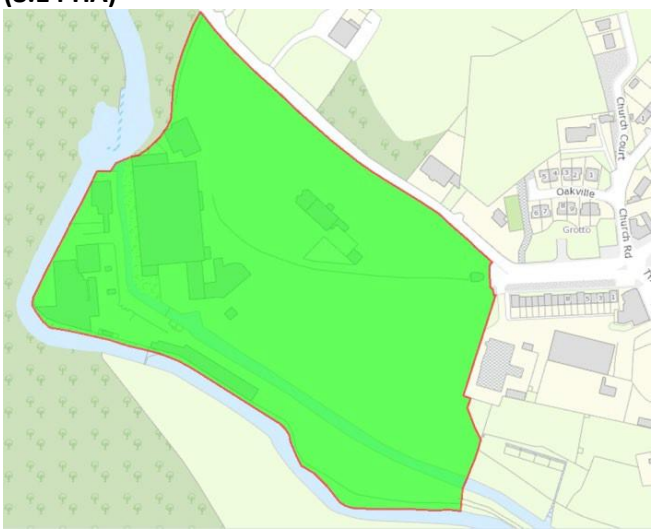
Passage East		
POS1	**Passage East Crooke Development Association (0.05 HA)** 	***Vision*** • Further development of existing complex. • Potential Landmark/ gateway to village and Waterford Estuary. • Potential mixed use. • Incorporate natural assets. • Potential open space. • Green infrastructure link to river. • Potential Tourism Development.

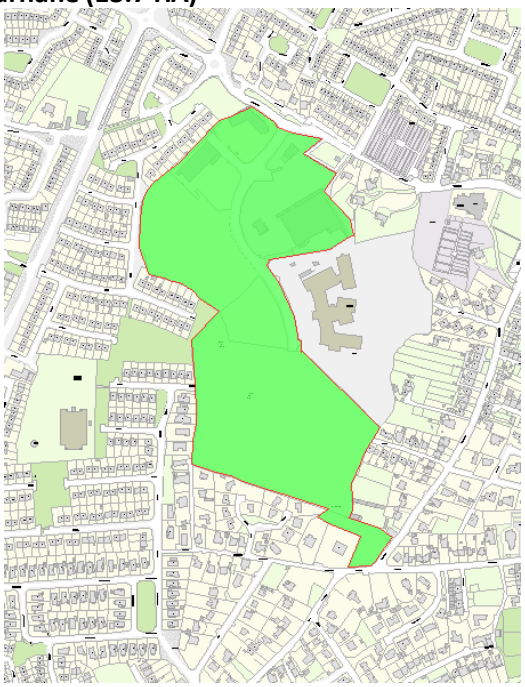
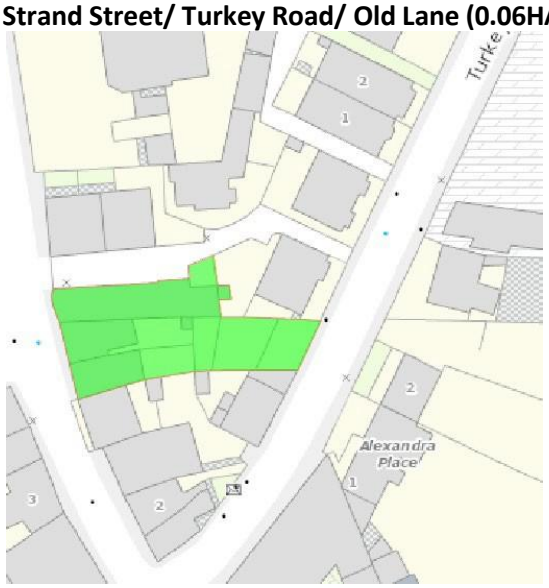
Rathgormuck		
ROS1	**Former Co-Op Site (0.14 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use (employment/ community) • Incorporate natural assets. • Potential open space. • Green infrastructure links.

Tallow		
TOS1	**Car Park, Former Mill Site, Barracks Street (0.21 HA)** 	***Vision*** • Further development of existing complex. • Potential Landmark to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets. • Potential Housing Yield. • Please see specific development objective TWD01 in Appendix 2 of the Development Plan.
TOS2	**Former Corn Store, Barracks Street (0.65 HA)** 	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use. • Incorporate natural assets (Protected Structure) into any development. • Potential open space. • Green infrastructure links to proposed river walkway to the east of the site (TWD09). • Potential Housing Yield. • Please see specific development objective TWD02 in Appendix 2 of the Development Plan.

Lismore Town		
LOPS01	**Workhouse Site (1.41 HA)** 	***Vision*** • Any development on this site must facilitate the redevelopment of the workhouse in an orderly and sustainable manner whilst retaining the architectural and historical character of the workhouse. • Any development proposal shall have due regard to the designation of the workhouse and its curtilage as a Protected Structure and as such will be subject to Best Conservation Principles. • Any proposals on this should consist of a mixed use developments that compliment the zoning objective. • Development on this site could also facilitate start-up/enterprise type development. • Potential Housing Yield.
LOPS02	**The Convent Site (2.44HA)** 	***Vision*** • Any proposals on this site should be developed in a manner where the proposed uses/structures are compatible with both onsite and adjacent land uses and are appropriate to their location within the curtilage of this protected structure. • The redevelopment of the site shall adhere to best conservation principles. • Potential Housing Yield.
LOPS03	**The Train Station Site (1.81HA)** 	***Vision*** • Potential mixed use (employment/ community). • Incorporate natural assets (potential for Greenway extension through the site should be retained). • Potential open space. • Green infrastructure links. • Potential Housing Yield.

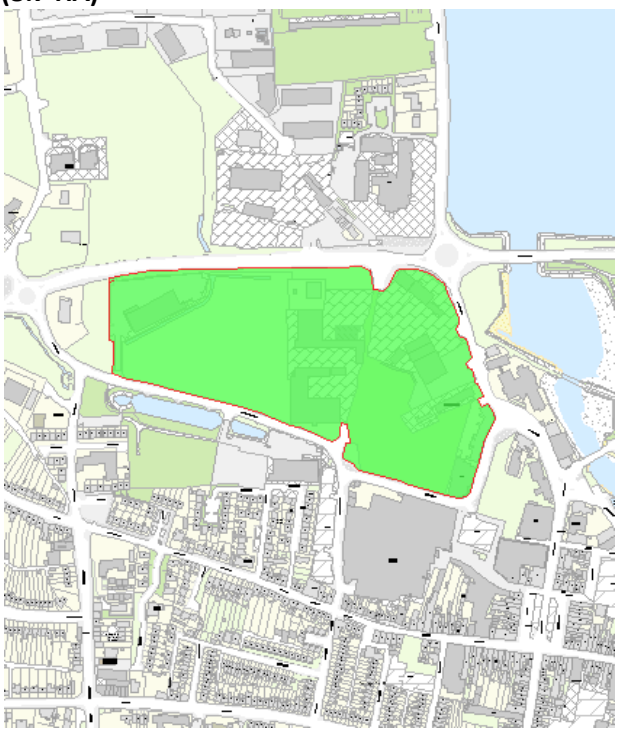
Dunmore East		
DUOS 01	**Killea Boys National School Site (0.36 HA)**  	***Vision*** • Potential Landmark/ gateway to village. • Desirable street edge. • Potential mixed use (employment/ community) • Incorporate natural assets. • Potential open space. • Green infrastructure links.

Portlaw Town		
PTOS01	**Former Tannery Complex and Mayfield House Site (8.14 HA)**  	***Vision*** • Any development on this site must facilitate the assessment, remediation and redevelopment of the former Tannery. • This site can accommodate a high quality mixed use development and shall be subject to the approval of an Environmental Management Plan for the site. • Any development on this site should maximise its river location and facilitate the development of the greenway/ walkway along the riverside. • Potential Landmark to village. • Potential mixed use. • Incorporate natural assets open space and links to the river while avoiding development within the floodzone. • Potential Housing Yield. • Please see specific development objective PLD07 and PLDO8 in Appendix 2 of the Development Plan.

Tramore Town		
TROS01	**Ballycarnane (13.7 HA)** 	***Vision*** • Development on this key town centre infill site should provide strong architectural design, consistent with the placemaking requirements of the development plan. • Support the development of a mixed use sustainable and compact urban quarter in the area around the Summerhill Centre, with an emphasis on employment, retail, other commercial services along with community uses and amenities. • Any development proposal shall facilitate sustainable & other transport links to and from the Summerhill Centre/ Ard Scoil na Mara to Priest's Road, Priest's Road/ Church Road junction and neighbouring residential areas to enhance permeability and reduce car usage. • Development proposals should explore potential to reconfigure existing surface car parking in order to improve the sense of place, enclosure and quality of the public realm, while maintaining sufficient car parking to service activities and land uses in the area.
TROS02	**Former Stella Maris (2.04 HA)** 	***Vision*** • Development on this site should provide for a mixed use medium-density development with an emphasis on apartments and residential living. • Any development should address the extensive street frontage along the Pond Road and the Old Waterford Road and be designed to an exceptional standard. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Potential Housing Yield.
TROS03	**Strand Street/ Turkey Road/ Old Lane (0.06HA)** 	***Vision*** • Development on this town centre site should provide strong architectural design and a mix of uses. • The development should address Turkey Road and Lower Strand St and be designed to an exceptional standard with a desirable street edge. Passive surveillance should be provided onto Old lane. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Potential Housing Yield.

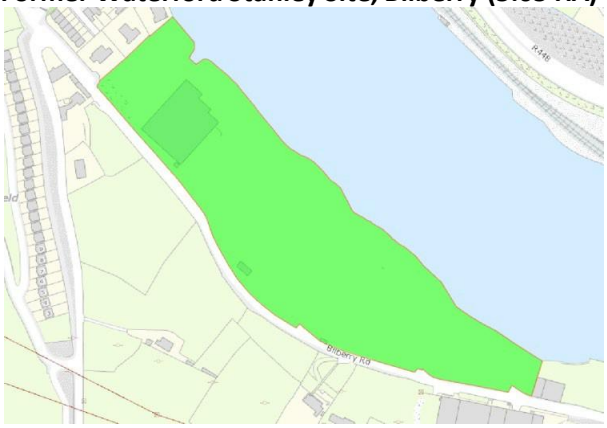
TROS04	**The Former Tramore Hotel Site, Strand Street (0.14HA)** 	***Vision*** • Development on this strategic brownfield site should provide strong architectural design as a key landmark/ gateway to Tramore Town. • Development on this site should be mixed use high density with emphasis on tourism, commercial, retail and residential uses. • Development should maximise its central location. • Potential Housing Yield.
TROS05	**The Former Grand Hotel, The Square (0.14HA)** 	***Vision*** • Development on the site of the former hotel should provide for its redevelopment as a hotel or other tourism uses. • Development should maximise the potential for enhancement of the vitality and vibrancy of street frontage onto The Square and Little Market Street.
TROS06	**Vacant Site, SuperValu Car Park, Priest's Road (0.23HA)** 	***Vision*** • Development on this infill site should provide strong architectural design. • Development on this site should be mixed use high density with emphasis on, commercial, and retail uses. • Development should maximise its central location. • Potential Housing Yield.

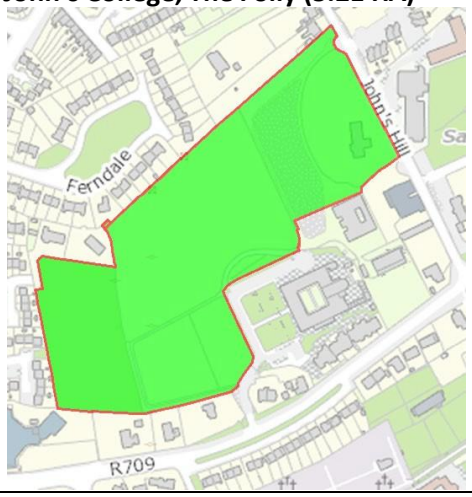
TROS07	**Sisters Of Charity Convent, Old Waterford Road (0.63 HA)** 	***Vision*** • Development on this institutional site should cater for medium-density residential development. • Any development proposal shall have due regard to the Open Space on the site. • Potential Housing Yield.

Dungarvan Town		
DTOS01	**Glanbia and adjacent lands, Davitt's Quay/Shandon (8.7 HA)** 	***Vision*** • Development on this key strategic underutilised site should provide strong architectural design as a key landmark or gateway to Dungarvan Town. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • Any development should consist of town centre and retail uses. • Any development should address the extensive street frontages and be designed to an exceptional standard. • Any development proposal shall facilitate active linkages through the site from the Shandon Roundabout and N25 to Walsh Street (L2060). • Potential for multi-storey car parking.
DTOS02	**SuperValu Car Park, Davitt's Quay (0.30 HA)** 	***Vision*** • Development on this site should have an emphasis on a mix of town centre commercial and residential uses. • Provide a strong architectural response for the site addressing both Crossbridge St and Davitt's Quay. • Any development on this site must designed to an exceptional standard with a desirable street edge and maximise its sites riverside location. • Potential Housing Yield. • Changes to car parking capacity on the site should be informed by the Local Transport Plan (LTP) for Dungarvan.
DTOS03	**Car Park, St. Augustine Street (0.56HA)** 	***Vision*** • Development on this key town centre infill site should provide strong architectural design. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on employment, retail, apartments & residential. • It will be vital that pedestrian/ cycle links from Main Street and St. Augustine St. are incorporated into the design of any proposed development. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Changes to car parking capacity on the site should be informed by the Local Transport Plan (LTP) for Dungarvan. • Potential Housing Yield.

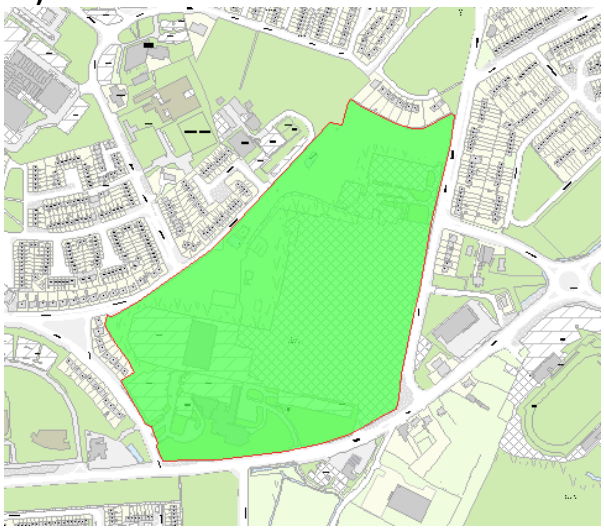
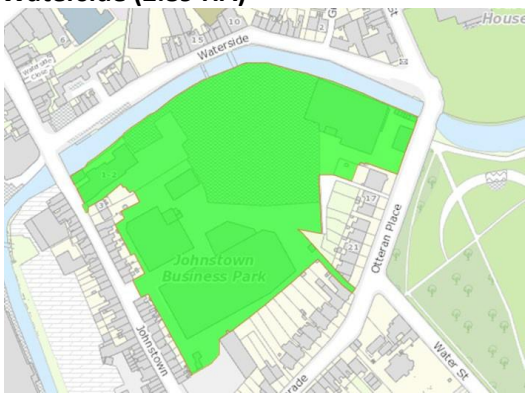
DTOS04	**Car Park, O'Connell Street (0.28 HA)** 	***Vision*** • Development on this key town centre infill site should provide strong architectural design. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on employment, retail, apartments & residential. • Any development should address the street frontage along O'Connell Street and Western Terrace and be designed to a high standard. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Changes to car parking capacity on the site should be informed by the Local Transport Plan (LTP) for Dungarvan. • Potential Housing Yield.
DTOS05	**John Treacy Street, Shandon Site (2.6HA)** 	***Vision*** • Development on this strategic brownfield site should provide strong architectural design as a key landmark/ gateway to Dungarvan Town. • Development on this site should be mixed use high density with emphasis on tourism (hotel), commercial, retail and residential uses. • Any development should address the street frontage along N25 and John Treacy Street and be designed to a high standard. • Any development on the site should provide for the enhanced pedestrian and cycle links across the site to link Sean Treacy Street and the town centre to Shandon north of the N25.
DTOS06	**Fire Station Road, Shandon Site (3.08 HA)** 	***Vision*** • Development on this strategic brownfield site should provide strong architectural design as a key landmark/ gateway to Dungarvan Town. • Development on this site should be mixed use high density with emphasis on tourism (hotel), commercial, retail and residential uses. • Potential to enhance the biodiversity value of the site. • Any development should address the street frontage along N25 and Fire Station Road and be designed to a high standard. • Any development on the site should provide for the provision of new and improved access to Shandon, pedestrian and sustainable mode link across the N25 and biodiversity on the site north of the N25.

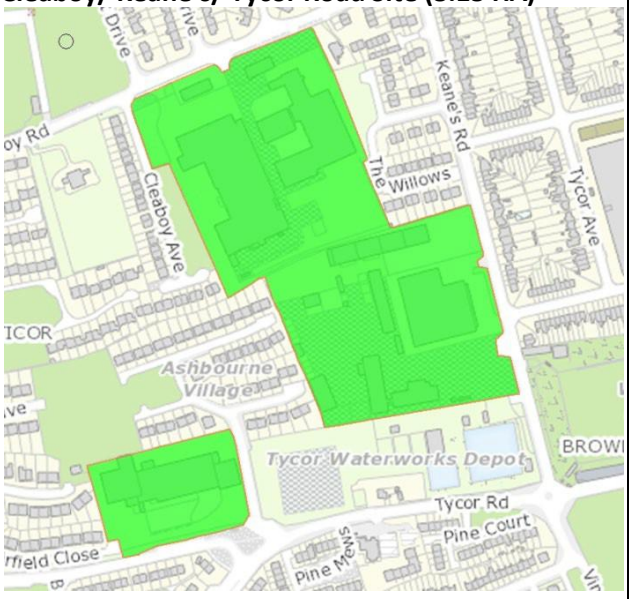
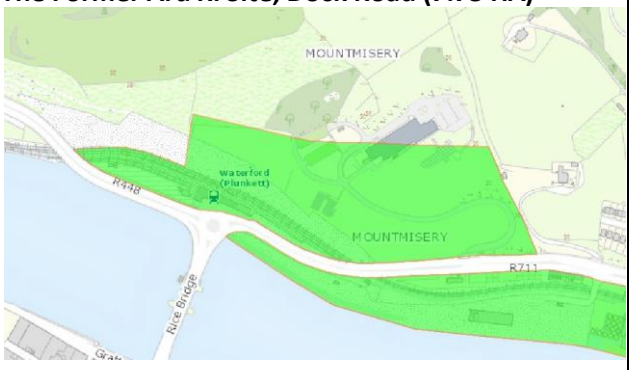
Waterford City		
OPS01	**Saint Joseph's House, Manor Hill (2.46 HA)** 	***Vision*** • Development on this institutional site should cater for medium-density residential development. • Any development proposal shall have due regard to the Open Space on the site and the Protected Structures and as such will be subject to Best Conservation Principles. • Any development on the site must include pocket parks and active/ green infrastructure links between John's Hill and Lower Grange Road. • Potential Housing Yield 50 Units.
OPS02	**Exchange Street Site (0.18 HA)** 	***Vision*** • Development on this city centre infill site should provide strong architectural design within the City Conservation Area. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on employment, retail, apartments and residential city living. • The development should be a landmark building and address Exchange Street and High Street and be designed to an exceptional standard with a desirable street edge. • Potential Housing Yield 30 Units.
OPS03	**Thomas Hill (0.21 HA)** 	***Vision*** • Development on this city centre infill site should provide strong architectural design within the City Conservation Area. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on employment, retail, apartments and residential city living. • The development should address Thomas Hill street frontage and be designed to an exceptional standard with a desirable street edge. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • The site has potential to accommodate taller building(s).

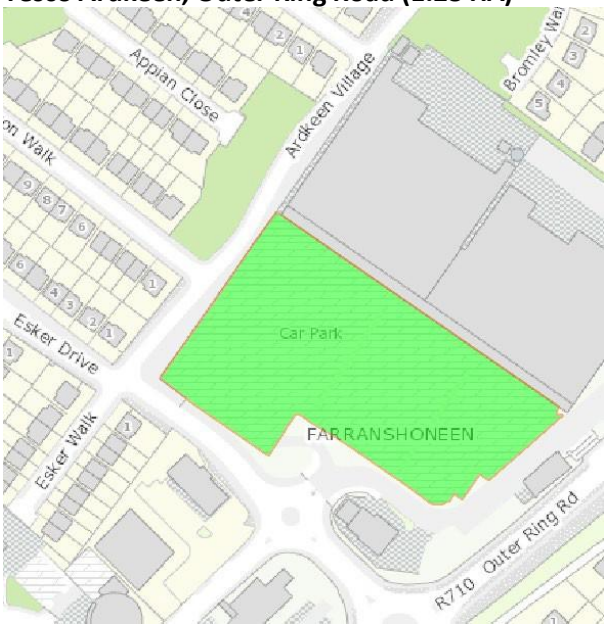
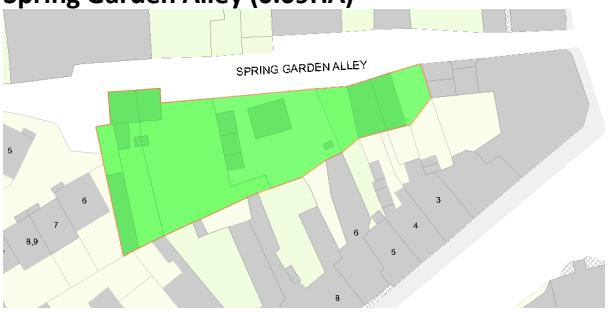
OPS04	**Jenkins Lane Site (0.48 HA)** 	***Vision*** • Development on this key city centre infill site should provide strong architectural design within the City Conservation Area. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on employment, retail, apartments and residential city living. • It will be vital that pedestrian and cycle links from Great George's to Patrick Street are incorporated into the design of any proposed development. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Any development should incorporate natural assets (city walls etc.) include potential open space and provide green infrastructure links. • Potential Housing Yield 10 Units.
OPS05	**North Quays SDZ (c. 11.72 HA)** 	***Vision*** • Development on this key strategic brownfield city centre site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Any development on the site must adhere to the North Quays STZ Planning Scheme as applicable at the time. • Development should maximise the sites river location and facilitate the development of the greenway/walkway along the riverside. • Any development should incorporate natural assets (river side location etc.) include potential open space and provide green infrastructure links. • The site has potential to accommodate taller building(s) and has a potential yield of c. 300 units.
OPS06	**Former Waterford Stanley Site, Bilberry (5.05 HA)** 	***Vision*** • Development on this key strategic brownfield site should provide strong architectural design as a key landmark or gateway to Waterford City. • Any development on this site should maximise its river location and facilitate the development of the greenway/ walkway along the riverside. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • Any development should be mixed use high density with emphasis on residential uses with ancillary commercial and tourism uses. • Any development should incorporate natural assets (river side location etc.) include potential open space and provide green infrastructure links. • The site has potential to accommodate taller building(s) and has a potential yield of c. 300 units.

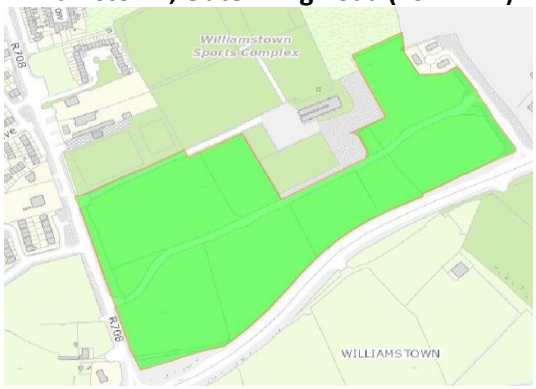
OPS07	**John's College, The Folly (5.21 HA)** 	***Vision*** • Development on this institutional site should cater for medium-density residential development. • Any development proposal shall have due regard to the trees in the grounds of St. John's College as well as the designation of the Arlington Lodge and St. John's College and their curtilage as Protected Structures and as such will be subject to Best Conservation Principles; • Any development on the site must include pocket parks and green infrastructure links across the site and between John's Hill and Lower Grange Road. • The site has potential to accommodate taller building(s) and has a potential yield of c. 20 units.
OPS08	**St. Otteran's, John's Hill (15.61 HA)** 	***Vision*** • Development on this institutional site should cater for medium/high-density residential development. • Any development proposal shall have due regard to the trees and open space in the grounds of St. Otteran's Hospital as well as the designation of the Hospital and its curtilage as Protected Structures and as such will be subject to Best Conservation Principles. • Any development on this site must include pocket parks and green infrastructure and active travel links across the site and between Upper Grange Road and Lower Grange/ St. John's Park Road. • The site has potential to accommodate taller building(s) and has a potential yield of c. 150 units.
OPS09	**Brooks Site, Newtown Road (1.53 HA)** 	***Vision*** • Development on this brownfield site should create a mixed use high-density mixed use development with an emphasis on residential, tourism and commercial development. • Provide a strong architectural response for the site addressing both the People's Park and the River Suir as well as providing pedestrian and green infrastructure links to and along the river. • Any development on this site must designed to an exceptional standard with a desirable street edge while maximising the riverside location. • The site has potential to accommodate taller building(s) and has a potential yield of c. 50 units

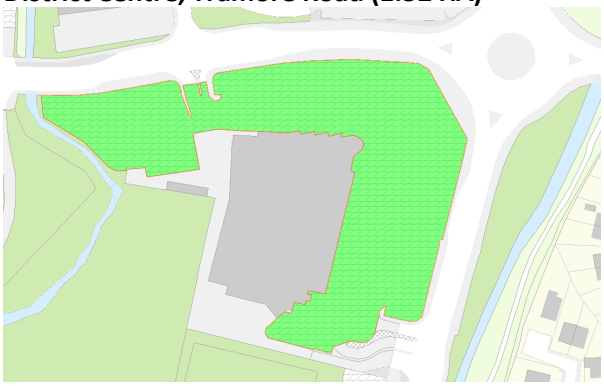
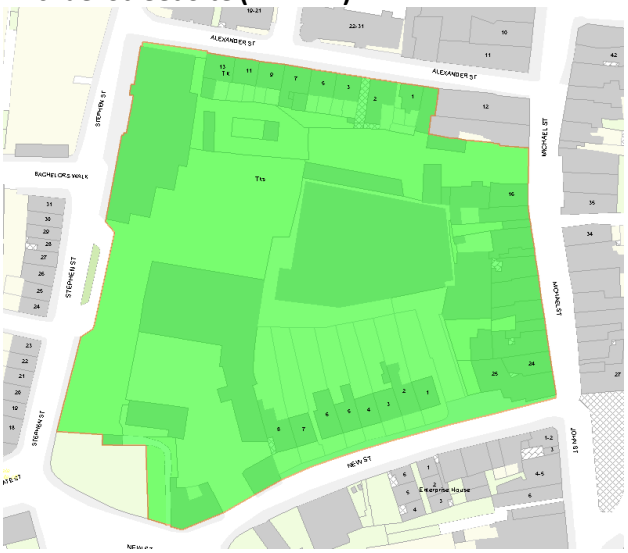
OPS10	**The Glenville Centre (Former Power Seeds), Dunmore Road (0.89 HA)** 	***Vision*** • The underutilised site is a key regeneration site in the east of the Waterford City should provide for a mixed use medium-density development with an emphasis on employment, apartments and residential city living; • The development should address the extensive street frontage along the Dunmore Road and be designed to an exceptional standard. • A high-quality public realm will be required in any development including pocket park; • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Potential Housing Yield.
OPS11	**Yellow House, Kilbarry (8.31 HA)** 	***Vision*** • Development on this infill site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Create a mixed use medium/ high-density development on the site with an emphasis on apartments and residential city living. • Any development on the site must adhere to the specific objectives highlighted in the Appendix 6 City South West Design Framework. • Any development on this site must provide for adequate open space and facilitate the development of a walkway/ cycle route and green infrastructure links connecting the SETU with Kilbarry Nature Park. • Provide a strong architectural response and be designed to an exceptional standard with a desirable street edge addressing the Cork Road, Nature Park and the Kilbarry/Lacken. • The site has potential to accommodate taller building(s) and has a potential yield of c. 170 units.

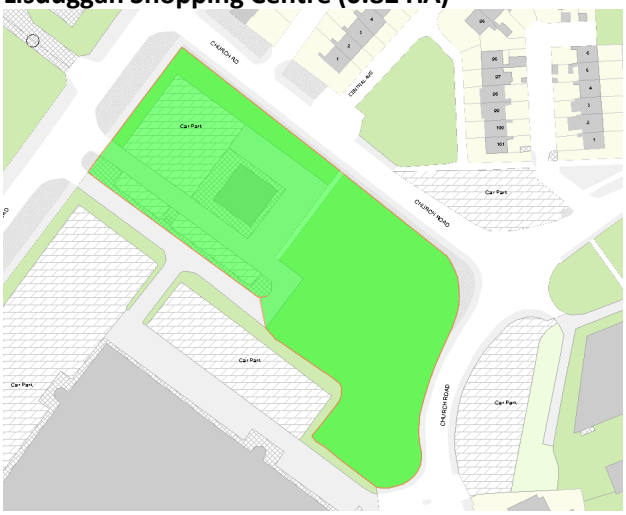
OPS12	**Former Waterford Crystal Site, Cork Road (15.9 HA)** 	***Vision*** • Development on this regional key strategic brownfield site should provide strong architectural design as a key landmark or gateway to Waterford City and of the SETU Quarter and be designed to an exceptional standard with a desirable street edge along principal streets. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • Future development should facilitate expansion of the SETU campus, education, symbiotic employment and supporting commercial uses, including student accommodation. • Any development on the site shall adhere to the specific objectives highlighted in the Appendix 6 City Southwest Design Framework. • Any development proposal shall facilitate active and green infrastructure linkages to SETU campus and Kilbarry Nature Park. • •The site has potential to accommodate taller building(s).
OPS13	**Gasworks Site / Johnstown Business Park, The Waterside (2.89 HA)** 	***Vision*** • Create a mixed use high-density development on the site with an emphasis on commercial and residential city living. • Create an attractive waterside mixed use development. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • The site has potential to accommodate taller building(s) and has a potential housing yield.
OPS14	**Dock Road (1.84 HA)** 	***Vision*** • Development on this strategic brownfield site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge and complement the North Quay planning scheme. • Development on this site should be mixed use high density with emphasis on employment, apartments and city living. • Any development proposal shall facilitate active linkages through the site from Ross Road to the North Quays SDZ and the River Suir. • The site has potential to accommodate taller building(s).

OPS15	**Cleaboy/ Keane's/ Tycor Road Site (8.15 HA)** 	***Vision*** • Development on this underutilised city centre site should provide for mixed used developments with an emphasis on employment, apartments and residential city living which is compliant with the zoning objective (Potential Housing Yield). • The development should address the extensive street frontage along Cleaboy Road, Keane's Road and Tycor Road Future and shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • A high-quality public realm will be required in any development including pocket parks. • Pedestrian and cycle links between Cleaboy and Tycor Road should be included in the overall design of this site. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal.
OPS16	**Tycor Industrial Complex, Morrisson's Ave (1.63 HA)** 	***Vision*** • Development on this underutilised city centre site should provide for mixed used developments with an emphasis on employment and residential uses which is compliant with the zoning objective. • The development should address the extensive street frontage along and maximise natural assets (Old Factory Site). • A high-quality public realm will be required in any development including pocket parks. • Pedestrian and cycle links through the site should be included in the overall design. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Potential Housing Yield.
OPS17	**The Former Ard Ri Site, Dock Road (7.75 HA)** 	***Vision*** • Development on this strategic brownfield site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Future developments shall comprise a high-quality design complementing the North Quay planning scheme. • Development on this site should be mixed use high density with emphasis on tourism, apartments and city living. • Development should maximise the sites elevated location and views across the city. • The site has potential to accommodate taller building(s).

OPS18	**Tesco Ardkeen, Outer Ring Road (1.28 HA)** 	***Vision*** • The site which is located in Ardkeen District Centre is a key regeneration site in the east of the Waterford City and should provide for a mixed use higher-density development with an emphasis on employment and residential uses while retaining the capacity of the car park to service the development in the area. • The development should address the street frontage of Esker Drive/ Ardkeen Village and be designed to an exceptional standard. • A high-quality public realm will be required in any development including pocket park. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Any development on this site must provide for adequate open space and facilitate the development of a walkway/ cycle route and green infrastructure links from Tesco to Ardkeen Village.
OPS19	**The South Quays (2.62 HA)** 	***Vision*** • Development on this key strategic city centre site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Development should maximise the sites river location and facilitate the development of the greenway/walkway along the riverside. • Any development should incorporate natural assets (river side location etc.) include extensive open space and provide green infrastructure links along the quay. • Development will be carried out in compliance with the design framework for the South Quays as per W City 29.
OPS20	**Spring Garden Alley (0.09HA)** 	***Vision*** • Potential mixed use. • Green infrastructure/ active travel link from Mall to Apple Market. • Potential to sympathetically regenerate are area in the immediate cartilage of sections of the Medieval City Wall. • Potential for significant improvement to the public realm along Spring Garden. • Muse type development to enhance the stock of quality residential units in the city centre.

OPS21	**Car Park Bolton Street (0.72 HA)** 	***Vision*** • Create a mixed use high-density development on the site with an emphasis on commercial and residential city living; • Create an attractive waterside mixed use development. • Future developments shall comprise a high-quality design, fine grained active frontage blocks providing a strong built edge. • The site has potential to accommodate taller building(s).
OPS22	**Waterford Crystal Sports Complex, Cork Road (9.88 HA)** 	***Vision*** • Development on this strategic site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Future developments shall comprise a high-quality design. • Development on this site should be mixed use high density with emphasis on employment/ residential uses. • Any development proposal shall facilitate active linkages through the site from Cork Road to Clonard Park and Ballybeg Link Road. • The site has potential to accommodate taller building(s).
OPS23	**Williamstown, Outer Ring Road (13.12 HA)** 	***Vision*** • Development on this strategic site should provide strong architectural design as a key landmark/ gateway to Waterford City. • Development on this site should be mixed use high density with emphasis on neighbourhood scale retail/services, employment and residential uses. • Any development proposal shall facilitate active and green infrastructure/active travel linkages through the site from Killure Road/ Outer Rind Road to St Otteran's. • Provide a strong architectural response for the site addressing both the Killure Road/ Outer Rind Road. • The site has potential to accommodate taller building(s)
OPS24	**Neighbourhood Centre, Carrickphierish (7.29 HA)** 	***Vision*** • Development on this infill site should provide strong architectural design as a key landmark development for Carrickphierish Neighbourhood. • Create a mixed use medium/ high-density development on both sites with an emphasis on community, neighbourhood scale retail uses, apartments and residential city living; • Any development on this site must provide for adequate open space and facilitate the development of a walkway/ cycle route and green infrastructure links connecting the Carrickphierish Road with the IDA Industrial Estate to the south and surrounding residential developments. • Provide a strong architectural response and be designed to an exceptional standard with a desirable street edge addressing the Carrickphierish Road. • The site has potential to accommodate taller building(s).

OPS25	**District Centre, Tramore Road (1.32 HA)** 	***Vision*** • The site which is located in the Tramore Road/ Kilbarry District Centre is a key regeneration site in the South West of the Waterford City and should provide for a mixed use high density development with an emphasis on employment, apartments and residential city living while retaining sufficient car parking to accommodate existing and proposed uses on the lands. • The development should address the street frontage of The Inner Ring Road (R709) and the Tramore Road (675) and be designed to an exceptional standard. • A high-quality public realm will be required in any development. • The site has potential to accommodate taller building(s).
OPS26	**O'Bryne Garage Site, The Glen (0.10 HA)** 	***Vision*** • Potential mixed. • The development should address the street frontage of The Glen/ Glasshouse Land and be designed to an exceptional standard. • The site has potential to accommodate taller building(s).
OPS27	**Michael Street Site (1.42 HA)** 	***Vision*** • Development on this key city centre site should provide strong architectural design within the City Conservation Area. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living. • It will be vital that pedestrian and cycle links through the site are incorporated into the design of any proposed development. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • Any development should incorporate natural assets and include potential open space and provide green infrastructure links to Wyse Park. • The development should address the extensive street frontage of the site and be designed to an exceptional standard. • The site has potential to accommodate taller building(s).

OPS28	**Ballybricken (0.75 HA)** 	***Vision*** • Development on this key city centre site should provide strong architectural design. • Create a sustainable and compact urban quarter through a mixed use high-density development with an emphasis on tourism, employment, retail, apartments and residential city living. • It will be vital that pedestrian and cycle links from Yellow Road to Morgan St are incorporated into the design of any proposed development. • Adjoining private amenity spaces of neighbouring residential properties should be protected through the design and layout of any proposal. • The development should address the extensive street frontage along Morgan St. and be designed to an exceptional standard. • The site has potential to accommodate taller building(s).
OPS29	**Lisduggan Shopping Centre (0.82 HA)** 	***Vision*** • The site which is located in the Lisduggan District Centre is a key regeneration site in the West of the Waterford City and should provide for a mixed use medium-density mixed use development with an emphasis on employment, apartments and residential city living. • The development should address the street frontage of Paddy Browne's Road and be designed to an exceptional standard. • A high-quality public realm will be required in any development. • The site has potential to accommodate taller building(s).
OPS30	**The Glen (0.19 HA)** 	***Vision*** • Potential mixed. • The development should address the street frontage of The Glen/ Penrose Land/ Thomas Street and be designed to an exceptional standard. • The site has potential to accommodate taller building(s) at its western end nearest to the multi-storey car park.

Appendix 22
Archaeology

Waterford
City & County Council
Comhairle Cathrach
& Contae Phort Láirge

The Sites and Monuments Record (SMR) contains details of all monuments and places (sites) where it is believed there is a monument known to the ASI pre-dating AD 1700 and also includes a selection of monuments from the post-AD 1700 period. The records, which are maintained by the National Monuments Service, Department of Housing Local Government and Heritage, are subject to revision and the data is updated daily. The SMR database can be viewed on-line on the Historic Environment Viewer on https://maps.archaeology.ie

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-007----	ABBEYLANDS	Weir - fish
WA009-008----	ABBEYLANDS	Religious house - Augustinian, of Arrouaise nuns
WA009-008001-	ABBEYLANDS	Graveyard
WA031-040029-	ABBEYSIDE	Graveslab
WA031-040005-	ABBEYSIDE	Religious house - Augustinian friars
WA031-040006-	ABBEYSIDE	Castle - tower house
WA031-040030-	ABBEYSIDE	Armorial plaque
WA031-040008-	ABBEYSIDE	Architectural fragment
WA031-040015-	ABBEYSIDE	Ritual site - holy well
WA031-040027-	ABBEYSIDE	Excavation - miscellaneous
WA031-040031-	ABBEYSIDE	Stone head
WA031-040032-	ABBEYSIDE	Graveyard
WA031-040----	ABBEYSIDE,DUNGARVAN	Historic town
WA016-036----	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Castle - unclassified
WA016-037----	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Church
WA016-035----	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Ritual site - holy well
WA016-122----	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Boundary stone
WA017-123003-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Hut site
WA017-123004-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Kiln
WA017-123007-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Furnace

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-123009-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Kiln
WA017-123005-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Enclosure
WA017-123001-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Hut site
WA017-123002-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Hut site
WA017-123006-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Hut site
WA017-123008-	ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Excavation - miscellaneous
WA029-051----	AFFANE	Metalworking site
WA021-040----	AFFANE HUNTER	House - 17th century
WA029-013001-	AFFANE HUNTER	Church
WA029-013002-	AFFANE HUNTER	Graveyard
WA021-030----	AFFANE HUNTER,CRINNAGHTAUN WEST,SLUGGARA,SUNLAWN	Battlefield
WA028-007----	AGLISH (Coshmore and Coshbride By.)	Moated site
WA028-006002-	AGLISH (Coshmore and Coshbride By.)	Burial ground
WA034-003002-	AGLISH (Decies within Drum By.)	Graveyard
WA034-003003-	AGLISH (Decies within Drum By.)	Cross
WA034-003005-	AGLISH (Decies within Drum By.)	Headstone
WA034-003004-	AGLISH (Decies within Drum By.)	Headstone
WA034-003006-	AGLISH (Decies within Drum By.)	Headstone
WA034-003001-	AGLISH (Decies within Drum By.)	Church
WA034-003007-	AGLISH (Decies within Drum By.)	Cross - Wayside cross
WA034-075----	AGLISH (Decies within Drum By.)	Excavation - miscellaneous
WA034-003008-	AGLISH (Decies within Drum By.)	Graveslab
WA015-048001-	AHANAGLOGH	Fulacht fia
WA015-106002-	AHANAGLOGH	Fulacht fia
WA015-106001-	AHANAGLOGH	Habitation site
WA015-048006-	AHANAGLOGH	Hearth
WA015-106004-	AHANAGLOGH	Kiln

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA015-048009-	AHANAGLOGH	Excavation - miscellaneous
WA015-106006-	AHANAGLOGH	Charcoal-making site
WA015-106005-	AHANAGLOGH	Metalworking site
WA015-108----	AHANAGLOGH	Metalworking site
WA015-106003-	AHANAGLOGH	Metalworking site
WA015-048008-	AHANAGLOGH	Metalworking site
WA015-106007-	AHANAGLOGH	Habitation site
WA015-106008-	AHANAGLOGH	Field boundary
WA015-091----	AHANAGLOGH	Fulacht fia
WA015-048002-	AHANAGLOGH	Hut site
WA015-048003-	AHANAGLOGH	Habitation site
WA015-092----	AHANAGLOGH	Fulacht fia
WA020-005----	AHAUN (Coshmore and Coshbride By.)	Designed landscape - tree-ring
WA035-012----	AHAUN (Decies within Drum By.)	Standing stone
WA038-061----	AHAUN (Decies within Drum By.)	Standing stone
WA036-028----	AN CARRAIGÁ□N (Par. Rinn Ó gCuanach)	Ringfort - rath
WA024-010----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - rath
WA024-012----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - unclassified
WA024-007----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - unclassified
WA024-008----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - unclassified
WA024-009----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Earthwork
WA024-011----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - rath
WA024-013----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - rath
WA024-015----	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - rath
WA024-014001-	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Ringfort - rath
WA024-014002-	AN FHAICHE (Bar. Na Déise lasmuigh den Drom)	Souterrain
WA036-007----	AN MÓTA	Ritual site - holy well
WA036-006----	AN MÓTA	Mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA035-016001-	AN tSEANCHILL (Par. Dún Garbhán)	Church
WA035-016002-	AN tSEANCHILL (Par. Dún Garbhán)	Bullaun stone
WA035-016003-	AN tSEANCHILL (Par. Rinn Ó gCuanach)	Cross-inscribed stone
WA025-062----	ANNESTOWN	Monumental structure
WA025-070----	ANNESTOWN	Promontory fort - coastal
WA016-026004-	ARDEENLOUN EAST	Font
WA016-026003-	ARDEENLOUN EAST	Tomb - chest tomb
WA016-027----	ARDEENLOUN EAST	Field boundary
WA016-026002-	ARDEENLOUN EAST	Graveyard
WA016-026001-	ARDEENLOUN EAST	Church
WA016-024----	ARDEENLOUN EAST	Ringfort - unclassified
WA016-025----	ARDEENLOUN EAST	Castle - unclassified
WA016-020----	ARDEENLOUN EAST	Ringfort - unclassified
WA016-074----	ARDEENLOUN EAST	Standing stone
WA016-145----	ARDEENLOUN WEST	Enclosure
WA025-032002-	ARDNAHOW	Enclosure
WA025-034----	ARDNAHOW	Ringfort - rath
WA025-035----	ARDNAHOW	Standing stone
WA025-030----	ARDNAHOW	Ringfort - rath
WA025-032001-	ARDNAHOW	Ringfort - unclassified
WA025-092----	ARDNAHOW	Church
WA025-120----	ARDNAHOW	Burnt mound
WA025-033----	ARDNAHOW,BALLYGARRAN (Middlethird By., Islandikane Par.)	Earthwork
WA040-008016-	ARDOCHEASTY	Graveslab
WA040-008015-	ARDOCHEASTY	Graveslab
WA040-008013-	ARDOCHEASTY	Graveslab
WA040-008014-	ARDOCHEASTY	Graveslab

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA040-008017-	ARDOCHEASTY	Graveslab
WA040-008002-	ARDOCHEASTY	Cathedral
WA040-008006-	ARDOCHEASTY	Ogham stone
WA040-008009-	ARDOCHEASTY	Bullaun stone
WA040-008005-	ARDOCHEASTY	Ogham stone
WA040-008007-	ARDOCHEASTY	Ogham stone
WA040-008011-	ARDOCHEASTY	Graveslab
WA040-008001-	ARDOCHEASTY	Church
WA040-008008-	ARDOCHEASTY	Graveyard
WA040-008004-	ARDOCHEASTY	Church
WA040-008022-	ARDOCHEASTY	Stone sculpture
WA040-008012-	ARDOCHEASTY	Graveslab
WA040-008010-	ARDOCHEASTY	Cross-inscribed stone
WA040-008019-	ARDOCHEASTY	Font
WA040-008003-	ARDOCHEASTY	Round tower
WA040-008018-	ARDOCHEASTY	Architectural fragment
WA040-008024-	ARDOCHEASTY	Graveslab
WA040-008025-	ARDOCHEASTY	Ogham stone (present location)
WA040-008026-	ARDOCHEASTY	Cross-slab
WA040-004001-	ARDOGINNA	Ringfort - rath
WA040-006----	ARDOGINNA	Ringfort - unclassified
WA040-003----	ARDOGINNA	Enclosure
WA040-004002-	ARDOGINNA	Souterrain
WA040-005----	ARDOGINNA	House - 18th/19th century
WA040-027----	ARDOGINNA	Promontory fort - coastal
WA040-028----	ARDOGINNA	Promontory fort - coastal
WA005-044----	ARDPADDIN	House - 17th century
WA005-042----	ARDPADDIN	Weir - fish

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA037-024----	ARDSALLAGH	Ritual site - holy well
WA015-017----	ASHTOWN	Enclosure
WA015-019----	ASHTOWN	Enclosure
WA015-018----	ASHTOWN	Ringfort - rath
WA015-065----	ASHTOWN	Standing stone
WA015-077----	ASHTOWN	Standing stone
WA015-005----	ASHTOWN	Earthwork
WA015-004----	ASHTOWN	Ringfort - rath
WA015-020----	ASHTOWN,KEALFOUN	Ringfort - rath
WA003-038----	AUGHMORE	Earthwork
WA003-018003-	AUGHMORE	Enclosure
WA003-018001-	AUGHMORE,KILBALLYQUILTY	Ecclesiastical enclosure
WA003-018002-	AUGHMORE,KILBALLYQUILTY	Enclosure
WA039-010001-	BAILE AN tSLÉIBHE THEAS	Church
WA039-010002-	BAILE AN tSLÉIBHE THEAS	Graveyard
WA039-030----	BAILE MHAC AIRT Á□OCHTARACH	Enclosure
WA039-032----	BAILE MHAC AIRT Á□OCHTARACH	Standing stone
WA039-034----	BAILE MHAC AIRT Á□OCHTARACH	Fulacht fia
WA039-035001-	BAILE MHAC AIRT Á□OCHTARACH	Field system
WA039-031002-	BAILE MHAC AIRT Á□OCHTARACH	Standing stone
WA039-035002-	BAILE MHAC AIRT Á□OCHTARACH	House - indeterminate date
WA039-031001-	BAILE MHAC AIRT Á□OCHTARACH	Standing stone
WA039-003----	BAILE MHAC AIRT UACHTARACH	Enclosure
WA039-033----	BAILE MHAC AIRT UACHTARACH	Standing stone
WA039-036----	BAILE MHAC AIRT UACHTARACH	Standing stone
WA039-009----	BAILE MHAC AIRT UACHTARACH	Mound
WA039-007----	BAILE NA MÓNA Á□OCHTARACH	Megalithic tomb - court tomb
WA039-012----	BAILE NA MÓNA Á□OCHTARACH	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA039-013----	BAILE NA MÓNA Á□OCHTARACH	Promontory fort - coastal
WA039-005----	BAILE NA MÓNA UACHTARACH	Ringfort - rath
WA039-027----	BAILE NA MÓNA UACHTARACH	Standing stone
WA039-028----	BAILE NA MÓNA UACHTARACH	Standing stone
WA036-010001-	BAILE NA nGALL MÓR	Ringfort - unclassified
WA036-010002-	BAILE NA nGALL MÓR	Souterrain
WA036-025----	BAILE NA nGALL MÓR	Souterrain
WA039-029----	BAILE THROSNÁ□IN	Souterrain
WA039-021----	BAILE THROSNÁ□IN	Ritual site - holy well
WA039-006----	BAILE UÁ□ CHURRAOIN THEAS	Ringfort - unclassified
WA039-026002-	BAILE UÁ□ CHURRAOIN THEAS	House - indeterminate date
WA039-026001-	BAILE UÁ□ CHURRAOIN THEAS	Ringfort - rath
WA036-011----	BAILE UÁ□ RAGHALLAIGH	Ringfort - unclassified
WA031-012----	BALLEIGHTERAGH EAST	Ringfort - unclassified
WA017-040----	BALLINAMONA	Structure
WA017-039----	BALLINAMONA	Castle - unclassified
WA017-111----	BALLINAMONA	Deer park
WA028-020----	BALLINANCHOR	Castle - unclassified
WA029-001----	BALLINASPICK NORTH	Ritual site - holy well
WA029-001001-	BALLINASPICK NORTH	Penitential station
WA026-019----	BALLINATTIN	Ringfort - unclassified
WA026-018----	BALLINATTIN	Enclosure
WA035-010001-	BALLINDRUMMA	Ringfort - rath
WA035-010002-	BALLINDRUMMA	Souterrain
WA017-110----	BALLINDUD	Standing stone
WA017-081----	BALLINDUD	Children's burial ground
WA017-016----	BALLINDUD	Megalithic tomb - portal tomb
WA003-013----	BALLINDYSERT	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA003-022----	BALLINDYSERT	Earthwork
WA003-011----	BALLINDYSERT	Enclosure
WA003-019----	BALLINDYSERT	Standing stone - pair
WA003-062----	BALLINDYSERT	Church
WA003-099----	BALLINDYSERT	Enclosure
WA003-012----	BALLINDYSERT,CORRAGINA	Enclosure
WA003-006----	BALLINGARRA	Enclosure
WA003-017----	BALLINGARRA	Enclosure
WA003-016----	BALLINGARRA	Enclosure
WA025-042----	BALLINGARRY	Enclosure
WA025-043----	BALLINGARRY	Enclosure
WA025-039----	BALLINGARRY	Ringfort - unclassified
WA025-113----	BALLINGARRY	Standing stone
WA024-044001-	BALLINGOWAN	Ringfort - rath
WA024-044002-	BALLINGOWAN	Bullaun stone
WA024-110----	BALLINGOWAN	Bullaun stone
WA029-067001-	BALLINGOWAN EAST,BALLINGOWAN WEST	Enclosure
WA029-067----	BALLINGOWAN EAST,BALLINGOWAN WEST	Church
WA018-017001-	BALLINKINA	Fulacht fia
WA018-075----	BALLINKINA	Enclosure
WA018-017002-	BALLINKINA	Fulacht fia
WA018-076----	BALLINKINA	Enclosure
WA018-017003-	BALLINKINA	Fulacht fia
WA039-004----	BALLINROAD (Decies within Drum By.)	Ringfort - rath
WA031-052----	BALLINROAD (Decies without Drum By.)	Settlement cluster
WA030-073----	BALLINTAYLOR LOWER,BALLINTAYLOR UPPER	House - 17th century
WA023-017----	BALLINTLEA	Ringfort - rath
WA023-037----	BALLINTLEA	Linear earthwork

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-028----	BALLINTOOR	Ringfort - rath
WA027-073----	BALLINVELLA (Gaultiere By.)	Windmill
WA029-047001-	BALLINWILLIN	Church
WA029-047002-	BALLINWILLIN	Graveyard
WA017-127----	BALLYBEG	Excavation - miscellaneous
WA015-037----	BALLYBOY	Ringfort - rath
WA015-080----	BALLYBOY	Standing stone
WA015-068----	BALLYBOY	Bullaun stone
WA015-081----	BALLYBOY	Standing stone
WA034-082----	BALLYBRACK (Coshmore and Coshbride By.)	House - 17th century
WA034-028----	BALLYBRACK (Coshmore and Coshbride By.),BALLYROE	Enclosure
WA015-083----	BALLYBRACK (Decies without Drum By.)	Standing stone
WA016-016----	BALLYBRACK (Decies without Drum By.)	Ringfort - unclassified
WA016-017----	BALLYBRACK (Decies without Drum By.)	Ringfort - unclassified
WA016-124----	BALLYBRACK (Decies without Drum By.)	Enclosure
WA016-015----	BALLYBRACK (Decies without Drum By.)	Ringfort - rath
WA016-082----	BALLYBREGIN	Settlement cluster
WA016-088----	BALLYBRENNOCK	Mill - unclassified
WA016-089----	BALLYBRENNOCK	Settlement cluster
WA016-061----	BALLYBRENNOCK	Ringfort - unclassified
WA016-060----	BALLYBRENNOCK	Ringfort - unclassified
WA025-011----	BALLYBRENNOCK	Ringfort - unclassified
WA025-012----	BALLYBRENNOCK	Cairn - unclassified
WA025-013----	BALLYBRENNOCK	Ringfort - unclassified
WA025-010----	BALLYBRENNOCK	Enclosure
WA038-027----	BALLYBRUSA WEST	Ringfort - unclassified
WA038-028----	BALLYBRUSA WEST	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA038-053----	BALLYBRUSA WEST,BALLYNAMERTINAGH,BAWNAGARRANE,MILL AND CHURCHQUARTER	Road - road/trackway
WA008-025----	BALLYCAHANE	House - 17th century
WA008-009----	BALLYCAHANE	Enclosure
WA010-009----	BALLYCANVAN BIG	Castle - tower house
WA010-016002-	BALLYCANVAN BIG	House - 17th century
WA018-001----	BALLYCANVAN BIG	Tide mill - unclassified
WA026-029----	BALLYCARNANE	Ringfort - rath
WA017-077----	BALLYCASHIN	Castle - unclassified
WA028-039002-	BALLYCLEMENT	Barn
WA028-039001-	BALLYCLEMENT	House - 17th century
WA028-052002-	BALLYCLEMENT,TIRCULLEN LOWER,TIRCULLEN UPPER	Weir - fish
WA028-052001-	BALLYCLEMENT,TIRCULLEN LOWER,TIRCULLEN UPPER	House - 17th century
WA002-010002-	BALLYCLOHY	Bawn
WA002-010001-	BALLYCLOHY	Castle - tower house
WA037-010----	BALLYCONDON	Enclosure
WA030-060----	BALLYCONNERY LOWER,INCHINDRISLA WOOD	Enclosure
WA016-054----	BALLYCRADDOCK	Enclosure
WA016-055----	BALLYCRADDOCK	Enclosure
WA016-120----	BALLYCRADDOCK	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA029-045----	BALLYCULLANE (Decies within Drum By.),BALLYNAMULTINA,CURRAHEEN (Decies within Drum By.),GRALLAGH LOWER,WOODHOUSE OR TINAKILLY,AUGHNACURRAVEEL,BALLINDRUMMA,BALLYADAM,BALLYNAPARKA (Decies within Drum By., Kilmolash Par.),BRIDGEQUARTER (Decies without Drum By.),CLOGH,CRAGGS,CUSH OF GRANGE,GRAIGUE (Decies within Drum By.),KEEREEN LOWER,KEEREEN UPPER,KNOCKANEARIS,KNOCKANISKA (Decies within Drum By.),KNOCKNASKAGH UPPER,LACKAMORE (Decies within Drum By., Clashmore Par.),MILL AND CHURCHQUARTER,MONAGALLY WEST,DRUMGULLANE EAST,BALLYGAMBON UPPER,BALLYCURRANE NORTH,BALLYCURRANE SOUTH,BALLINURE (Decies within Drum By.)	Road - road/trackway
WA034-004----	BALLYCULLANE (Decies within Drum By.),CURRAHEEN (Decies within Drum By.)	Religious house - Franciscan friars
WA006-040----	BALLYCULLANE (Upperthird By.)	House - 17th century
WA006-005----	BALLYCULLANE (Upperthird By.)	Ringfort - unclassified
WA006-004----	BALLYCULLANE (Upperthird By.)	Mound
WA035-002----	BALLYCULLANE MORE	Enclosure
WA035-011----	BALLYCURRANE NORTH	Ringfort - unclassified
WA037-020----	BALLYDASOON	Ringfort - unclassified
WA018-021----	BALLYDAVID	Ringfort - unclassified
WA018-073----	BALLYDAVID	Enclosure
WA018-074----	BALLYDAVID	Enclosure
WA025-015----	BALLYDERMODY	Church
WA025-031001-	BALLYDERMODY	Ringfort - rath
WA025-031002-	BALLYDERMODY	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-091----	BALLYDERMODY	Church
WA025-123----	BALLYDERMODY	Enclosure
WA025-016----	BALLYDERMODY	Ringfort - rath
WA005-002----	BALLYDONAGH	Burial ground
WA005-001----	BALLYDONAGH	Ringfort - unclassified
WA005-033----	BALLYDONAGH	Settlement cluster
WA005-002001-	BALLYDONAGH	Enclosure - large enclosure
WA032-043----	BALLYDOWANE EAST	Promontory fort - coastal
WA032-044----	BALLYDOWANE EAST	Promontory fort - coastal
WA032-043001-	BALLYDOWANE EAST	Hut site
WA024-067----	BALLYDOWANE WEST	Water mill - horizontal-wheeled
WA024-114----	BALLYDOWANE WEST	Burnt mound
WA032-045----	BALLYDOWANE WEST	Promontory fort - coastal
WA017-058----	BALLYDRISLANE	Ringfort - unclassified
WA026-016----	BALLYDRISLANE	Earthwork
WA030-067----	BALLYDUFF (Decies without Drum By.)	Enclosure
WA030-028----	BALLYDUFF (Decies without Drum By.)	Ringfort - rath
WA030-066----	BALLYDUFF (Decies without Drum By.)	Enclosure
WA030-027----	BALLYDUFF (Decies without Drum By.), BALLYDUFF MORE	Enclosure
WA030-089----	BALLYDUFF BEG, BALLYMACMAGUE EAST	Enclosure
WA016-116002-	BALLYDUFF EAST	Bullaun stone
WA016-127----	BALLYDUFF EAST	Excavation - miscellaneous
WA016-126----	BALLYDUFF EAST	Excavation - miscellaneous
WA016-130002-	BALLYDUFF EAST	Fulacht fia
WA016-129----	BALLYDUFF EAST	Excavation - miscellaneous
WA016-130001-	BALLYDUFF EAST	Fulacht fia
WA016-137----	BALLYDUFF EAST	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-116001-	BALLYDUFF EAST, BALLYDUFF WEST	Church
WA020-011----	BALLYDUFF LOWER	House - 17th century
WA030-049----	BALLYDUFF MORE	Ringfort - unclassified
WA007-045----	BALLYDURN	Ringfort - rath
WA007-044----	BALLYDURN	Enclosure
WA007-078----	BALLYDURN	Bullaun stone
WA007-089----	BALLYDURN	Standing stone
WA007-092----	BALLYDURN	Bullaun stone (present location)
WA015-105----	BALLYDURN	Standing stone
WA021-021----	BALLYEA WEST	Road - road/trackway
WA021-022----	BALLYEA WEST	Castle - motte and bailey
WA016-128----	BALLYEA WEST	Bullaun stone (present location)
WA021-047----	BALLYEA WEST	Road - road/trackway
WA038-032----	BALLYEELINAN	Ringfort - unclassified
WA030-050----	BALLYGAGIN (Garde)	Enclosure
WA020-013----	BALLYGALLY	House - 17th century
WA020-018----	BALLYGALLY EAST	Earthwork
WA030-012002-	BALLYGAMBON LOWER	Cave
WA030-038001-	BALLYGAMBON UPPER	Fulacht fia
WA030-038002-	BALLYGAMBON UPPER	Fulacht fia
WA030-035----	BALLYGAMBON UPPER	Fulacht fia
WA030-037----	BALLYGAMBON UPPER	Fulacht fia
WA030-078----	BALLYGAMBON UPPER	Burnt mound
WA030-036----	BALLYGAMBON UPPER	Fulacht fia
WA024-092----	BALLYGARRAN (Decies without Drum By.)	House - 17th century
WA024-091----	BALLYGARRAN (Decies without Drum By.)	House - 17th century
WA024-065----	BALLYGARRAN (Decies without Drum By.)	Enclosure
WA024-066----	BALLYGARRAN (Decies without Drum By.)	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-127----	BALLYGARRAN (Decies without Drum By.)	Metalworking site
WA018-064----	BALLYGARRAN (Gaultiere By.)	Burnt mound
WA018-051----	BALLYGARRAN (Gaultiere By.)	Settlement cluster
WA027-003005-	BALLYGARRAN (Gaultiere By.)	Structure
WA027-003----	BALLYGARRAN (Gaultiere By.)	Church
WA027-003006-	BALLYGARRAN (Gaultiere By.)	Cross-slab
WA027-003001-	BALLYGARRAN (Gaultiere By.)	Burial ground
WA027-003002-	BALLYGARRAN (Gaultiere By.)	Enclosure
WA027-003003-	BALLYGARRAN (Gaultiere By.)	Cross-inscribed stone
WA027-003007-	BALLYGARRAN (Gaultiere By.)	Metalworking site
WA027-003008-	BALLYGARRAN (Gaultiere By.)	Well
WA027-003009-	BALLYGARRAN (Gaultiere By.)	Bullaun stone
WA027-003010-	BALLYGARRAN (Gaultiere By.)	Ecclesiastical enclosure
WA025-048----	BALLYGARRAN (Middlethird By., Islandikane Par.)	Enclosure
WA025-050----	BALLYGARRAN (Middlethird By., Islandikane Par.)	Ringfort - unclassified
WA025-049----	BALLYGARRAN (Middlethird By., Islandikane Par.)	Ringfort - unclassified
WA016-028001-	BALLYGARRAN (Middlethird By., Newcastle Par.)	Ringfort - rath
WA016-028002-	BALLYGARRAN (Middlethird By., Newcastle Par.)	Souterrain
WA016-047----	BALLYGARRAN (Middlethird By., Newcastle Par.)	Ringfort - rath
WA016-140----	BALLYGARRAN (Middlethird By., Newcastle Par.)	Enclosure
WA003-083----	BALLYGARRET	House - 17th century
WA018-012----	BALLYGUNNERCASTLE	House - 16th/17th century
WA018-014----	BALLYGUNNERCASTLE	Enclosure
WA018-085----	BALLYGUNNERCASTLE	Enclosure
WA018-013002-	BALLYGUNNERMORE	Souterrain
WA018-013001-	BALLYGUNNERMORE	Enclosure
WA018-043----	BALLYGUNNERMORE	Church
WA018-015001-	BALLYGUNNERTEMPLE	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA018-015002-	BALLYGUNNERTEMPLE	Graveyard
WA018-032----	BALLYGUNNERTEMPLE	Water mill - unclassified
WA018-004----	BALLYGUNNERTEMPLE	Megalithic structure
WA018-004001-	BALLYGUNNERTEMPLE	Mound
WA018-034----	BALLYGUNNERTEMPLE	House - 17th century
WA028-048----	BALLYHAMLET	House - 17th century
WA028-017----	BALLYHAMLET	Enclosure
WA036-017001-	BALLYHARRAHAN	Burial ground
WA036-003----	BALLYHARRAHAN	Ritual site - holy well
WA025-059----	BALLYHEADON	Earthwork
WA025-058----	BALLYHEADON	Ringfort - unclassified
WA037-018----	BALLYHEENY (Decies within Drum By., Kinsalebeg Par.)	Castle - tower house
WA017-013----	BALLYHOO	Ringfort - unclassified
WA015-035----	BALLYHUSSA	Ringfort - unclassified
WA015-084----	BALLYHUSSA	Enclosure
WA015-066----	BALLYHUSSA	Settlement cluster
WA015-078----	BALLYHUSSA	Standing stone
WA015-088----	BALLYHUSSA	Ring-ditch
WA016-001----	BALLYHUSSA	Enclosure
WA016-101----	BALLYHUSSA	Standing stone
WA016-143----	BALLYHUSSA	Enclosure
WA020-009----	BALLYIN UPPER	Enclosure
WA030-017003-	BALLYKENNEDY	Architectural fragment
WA030-017004-	BALLYKENNEDY	Graveslab
WA030-017001-	BALLYKENNEDY	Church
WA030-017002-	BALLYKENNEDY	Graveyard
WA022-028----	BALLYKERIN LOWER	Ringfort - unclassified
WA022-029----	BALLYKERIN MIDDLE	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA022-064----	BALLYKERIN UPPER	Fulacht fia
WA022-065----	BALLYKERIN UPPER	Burnt mound
WA031-022----	BALLYKEROGE BIG	Ringfort - rath
WA031-024----	BALLYKEROGE BIG	Ringfort - rath
WA031-023----	BALLYKEROGE BIG	Ringfort - unclassified
WA023-053----	BALLYKEROGE BIG, BALLYKEROGE LITTLE	Graveyard
WA023-052----	BALLYKEROGE BIG, BALLYKEROGE LITTLE	Ritual site - holy well
WA023-051----	BALLYKEROGE BIG, BALLYKEROGE LITTLE	Church
WA023-034----	BALLYKEROGE LITTLE	Ringfort - rath
WA039-023001-	BALLYKILMURRY (Decies within Drum By., Ardmore Par.)	Promontory fort - coastal
WA039-024----	BALLYKILMURRY (Decies within Drum By., Ardmore Par.)	Enclosure
WA039-023002-	BALLYKILMURRY (Decies within Drum By., Ardmore Par.)	Hut site
WA014-024005-	BALLYKILMURRY (Decies without Drum By.)	Cairn - clearance cairn
WA014-023----	BALLYKILMURRY (Decies without Drum By.)	Ringfort - unclassified
WA014-024002-	BALLYKILMURRY (Decies without Drum By.)	Souterrain
WA014-024004-	BALLYKILMURRY (Decies without Drum By.)	Cairn - clearance cairn
WA014-029----	BALLYKILMURRY (Decies without Drum By.)	Standing stone
WA014-024003-	BALLYKILMURRY (Decies without Drum By.)	Cairn - clearance cairn
WA014-024001-	BALLYKILMURRY (Decies without Drum By.), CUTTEEN SOUTH	Ringfort - rath
WA014-024006-	BALLYKILMURRY (Decies without Drum By.), CUTTEEN SOUTH	Hut site
WA014-024007-	BALLYKILMURRY (Decies without Drum By.), CUTTEEN SOUTH	Hut site
WA014-026----	BALLYKILMURRY (Decies without Drum By.), CUTTEEN SOUTH	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-059----	BALLYKINSELLA	Coffin-resting stone
WA017-143001-	BALLYKINSELLA	Enclosure
WA017-143002-	BALLYKINSELLA	Field boundary
WA037-023----	BALLYKNOCK (Coshmore and Coshbride By.)	Souterrain
WA031-003002-	BALLYKNOCK LOWER	Souterrain
WA031-005----	BALLYKNOCK LOWER	Ringfort - rath
WA031-002----	BALLYKNOCK LOWER	Ringfort - unclassified
WA031-003001-	BALLYKNOCK LOWER	Ringfort - rath
WA031-007----	BALLYKNOCK LOWER, CARROWNCASHLANE (Decies without Drum By., Kilgobnet Par.)	Enclosure
WA023-026----	BALLYKNOCK UPPER	Ringfort - unclassified
WA031-004003-	BALLYKNOCK UPPER	Souterrain
WA031-004001-	BALLYKNOCK UPPER	Ringfort - rath
WA031-004002-	BALLYKNOCK UPPER	Ringfort - rath
WA038-035----	BALLYLANE	Ritual site - holy well
WA024-037002-	BALLYLANEEN	Graveyard
WA024-037001-	BALLYLANEEN	Church
WA024-037003-	BALLYLANEEN	Font
WA024-025002-	BALLYLANEEN	Burial ground
WA024-105----	BALLYLANEEN	Ritual site - holy well
WA024-074----	BALLYLANEEN	House - 17th century
WA024-025003-	BALLYLANEEN	Font (present location)
WA016-081----	BALLYLEEN	Church
WA025-005----	BALLYLEEN	Enclosure
WA025-129----	BALLYLEEN	Mass-rock
WA016-062----	BALLYLEGAT	Enclosure
WA016-063----	BALLYLEGAT	Ringfort - unclassified
WA016-084----	BALLYLENANE	Settlement cluster

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-083----	BALLYLENANE	Church
WA016-085----	BALLYLENANE	Standing stone
WA018-028----	BALLYLOUGHBEG	Enclosure
WA018-055002-	BALLYLOUGHMORE	House - 17th century
WA018-055001-	BALLYLOUGHMORE	House - 17th century
WA027-040----	BALLYMACAW	Ritual site - holy well
WA027-064----	BALLYMACAW	Standing stone
WA027-062----	BALLYMACAW, GRAIGUE (Gaultiere By.)	Church
WA018-002002-	BALLYMACLODE	House - 17th century
WA018-003----	BALLYMACLODE	Fulacht fia
WA018-002001-	BALLYMACLODE	Castle - tower house
WA018-083----	BALLYMACLODE	Fulacht fia
WA005-037----	BALLYMAKEE	House - 17th century
WA017-041----	BALLYMOAT	Ringfort - rath
WA017-042----	BALLYMOAT	Barrow - mound barrow
WA017-043----	BALLYMOAT	Standing stone
WA028-049----	BALLYMOAT LOWER	House - 17th century
WA028-050----	BALLYMOAT LOWER	Kiln - lime
WA028-051----	BALLYMOAT UPPER	House - 17th century
WA021-019----	BALLYMOODRANAGH, BALLYNELLIGAN GLEBE, BALLYSAGGART BEG (East),CASTLELANDS,LISMORE (Coshmore and Coshbride By.)	Historic town
WA029-061----	BALLYMUDDY	House - 17th century
WA029-040----	BALLYMUDDY	Ringfort - unclassified
WA029-068----	BALLYMUDDY, SNUGBOROUGH	Ritual site - holy well
WA030-055----	BALLYMULALLA EAST, BALLYMULALLA WEST	Ringfort - rath
WA025-004----	BALLYMURRIN	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-079001-	BALLYMURRIN, KILBEG (Decies without Drum By., Kilbarrymeadan Par.)	House - 17th century
WA015-090----	BALLYNABANOGE NORTH	Standing stone
WA015-051----	BALLYNABANOGE NORTH, BALLYOGARTY, COOLTUBBRID WEST	Ringfort - rath
WA024-022----	BALLYNABANOGE SOUTH	Ringfort - unclassified
WA024-021----	BALLYNABANOGE SOUTH	Enclosure
WA024-024----	BALLYNABANOGE SOUTH	Ringfort - unclassified
WA024-109----	BALLYNABANOGE SOUTH	Enclosure
WA018-060001-	BALLYNABOLA	Burnt mound
WA018-060002-	BALLYNABOLA	Burnt mound
WA018-087----	BALLYNABOLA	Standing stone
WA034-035----	BALLYNACLASH, CLASHMORE	Enclosure
WA017-094----	BALLYNACLOGH NORTH,- BALLYNACLOGH SOUTH	House - 17th century
WA026-009----	BALLYNACLOGH SOUTH	Enclosure
WA026-069----	BALLYNACLOGH SOUTH	Standing stone
WA017-047----	BALLYNACLOGH SOUTH, CARRICKAVARAHANE	Enclosure
WA026-006----	BALLYNACLOGH SOUTH, CARRICKAVARAHANE	Enclosure
WA031-055002-	BALLYNACOURTY (Decies without Drum By., Dungarvan Par.)	House - 17th century
WA031-055001-	BALLYNACOURTY (Decies without Drum By., Dungarvan Par.)	House - 17th century
WA030-085----	BALLYNACOURTY (Decies without Drum By., Whitechurch Par.)	Cave
WA030-023----	BALLYNACOURTY (Decies without Drum By., Whitechurch Par.)	House - 18th/19th century
WA030-024----	BALLYNACOURTY (Decies without Drum By., Whitechurch Par.)	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA030-022----	BALLYNACOURTY (Decies without Drum By., Whitechurch Par.)	Burnt mound
WA030-087----	BALLYNACOURTY (Decies without Drum By., Whitechurch Par.)	Cave
WA003-046001-	BALLYNACURRA	Enclosure
WA003-046002-	BALLYNACURRA	Souterrain
WA003-081----	BALLYNACURRA,FEDDANS	Cairn - unclassified
WA003-075----	BALLYNAFINA	Church
WA003-075001-	BALLYNAFINA	Well
WA003-102----	BALLYNAFINA	Standing stone
WA003-075002-	BALLYNAFINA	Enclosure
WA033-023----	BALLYNAFINESHOGE	House - 17th century
WA033-024----	BALLYNAFINESHOGE	Standing stone
WA025-007----	BALLYNAGEERAGH	Megalithic tomb - portal tomb
WA025-090----	BALLYNAGEERAGH	Glass works
WA025-051----	BALLYNAGIGLA	Ringfort - unclassified
WA025-036005-	BALLYNAGIGLA	Building
WA025-036001-	BALLYNAGIGLA	Church
WA025-124----	BALLYNAGIGLA	Enclosure
WA025-128001-	BALLYNAGIGLA	Ogham stone (present location)
WA025-128002-	BALLYNAGIGLA	Ogham stone (present location)
WA025-036002-	BALLYNAGIGLA, BALLYRISTEEN	Graveyard
WA038-029----	BALLYNAGLERAGH (Decies within Drum By.)	Ringfort - rath
WA038-064----	BALLYNAGLERAGH (Decies within Drum By.)	Inscribed stone
WA022-005----	BALLYNAGLERAGH (Decies without Drum By.)	Enclosure
WA013-023001-	BALLYNAGUILKEE LOWER	Church
WA013-025----	BALLYNAGUILKEE LOWER	Ringfort - unclassified
WA013-023002-	BALLYNAGUILKEE LOWER	Cross - High cross

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA013-023003-	BALLYNAGUILKEE LOWER	Ecclesiastical enclosure
WA013-024----	BALLYNAGUILKEE LOWER	Ringfort - rath
WA013-044----	BALLYNAGUILKEE LOWER	Enclosure
WA022-004----	BALLYNAGUILKEE LOWER	Ringfort - unclassified
WA013-020002-	BALLYNAGUILKEE UPPER	Standing stone
WA013-020001-	BALLYNAGUILKEE UPPER	Hut site
WA013-043----	BALLYNAGUILKEE UPPER	Enclosure
WA039-014----	BALLYNAHARDA	Promontory fort - coastal
WA030-059----	BALLYNAHEMERY	Standing stone
WA024-103----	BALLYNAHILA	Burnt mound
WA024-104----	BALLYNAHILA	Burnt mound
WA024-085----	BALLYNAHILA	Settlement cluster
WA010-006003-	BALLYNAKILL (Gaultiere By.)	House - indeterminate date
WA010-007001-	BALLYNAKILL (Gaultiere By.)	Church
WA010-006002-	BALLYNAKILL (Gaultiere By.)	House - 17th century
WA010-015----	BALLYNAKILL (Gaultiere By.)	Mill - unclassified
WA010-006001-	BALLYNAKILL (Gaultiere By.)	Castle - tower house
WA010-007002-	BALLYNAKILL (Gaultiere By.)	Graveyard
WA010-006004-	BALLYNAKILL (Gaultiere By.)	Bawn
WA031-053002-	BALLYNALAHESSERY NORTH, BALLYNALAHESSERY SOUTH, CLONCOSKORAN, KILMINNIN LOWER, KILMINNIN NORTH, KILMINNIN SOUTH, KILMINNIN UPPER	House - 17th century
WA031-053003-	BALLYNALAHESSERY NORTH, CLONCOSKORAN, KILMINNIN LOWER, KILMINNIN NORTH, KILMINNIN SOUTH, KILMINNIN UPPER	Mill - unclassified
WA030-016----	BALLYNAMEELAGH	Cave
WA030-088----	BALLYNAMEELAGH	Cave

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA038-038----	BALLYNAMERTINAGH	Ringfort - rath
WA030-013----	BALLYNAMINTRA LOWER	Cave
WA030-015001-	BALLYNAMINTRA MIDDLE	Enclosure
WA030-015003-	BALLYNAMINTRA MIDDLE	Cave
WA030-015002-	BALLYNAMINTRA MIDDLE	Midden
WA030-019----	BALLYNAMINTRA UPPER	Fulacht fia
WA040-023----	BALLYNAMONA (Decies within Drum By.)	Enclosure
WA027-049----	BALLYNAMOYNTRAGH	Settlement cluster
WA027-076----	BALLYNAMOYNTRAGH	Enclosure
WA031-051001-	BALLYNAMUCK EAST, BALLYNAMUCK MIDDLE, BALLYNAMUCK WEST, MAPESTOWN, SHANDON	House - 17th century
WA031-051----	BALLYNAMUCK MIDDLE, BALLYNAMUCK WEST, SHANDON, BALLYNAMUCK EAST	Mill - unclassified
WA013-050001-	BALLYNAMULT	Urn burial
WA013-050002-	BALLYNAMULT	Barrow - unclassified
WA029-043----	BALLYNAPARKA (Decies within Drum By., Kilmolash Par.)	Ringfort - rath
WA029-018----	BALLYNARAHA	Ringfort - unclassified
WA029-028----	BALLYNARAHA	Castle - unclassified
WA024-068----	BALLYNARRID	Promontory fort - coastal
WA032-016002-	BALLYNARRID	Mine
WA032-016004-	BALLYNARRID	Hut site
WA032-017002-	BALLYNARRID	Building
WA032-016003-	BALLYNARRID	Hut site
WA032-016005-	BALLYNARRID	Hut site
WA032-015----	BALLYNARRID	Promontory fort - coastal
WA032-017001-	BALLYNARRID	Church
WA032-016001-	BALLYNARRID	Promontory fort - coastal

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA032-048----	BALLYNARRID	Promontory fort - coastal
WA024-087002-	BALLYNASISSALA	House - 17th century
WA025-038----	BALLYNASISSALA	Enclosure
WA025-052----	BALLYNASISSALA	Church
WA025-037----	BALLYNASISSALA	Ringfort - unclassified
WA024-087001-	BALLYNASISSALA	Mill - unclassified
WA024-087003-	BALLYNASISSALA	Church
WA037-032----	BALLYNATRAY COMMONS	House - 17th century
WA037-001----	BALLYNATRAY DEMESNE	Burnt mound
WA037-003----	BALLYNATRAY DEMESNE	Enclosure
WA037-004----	BALLYNATRAY DEMESNE	Mill - unclassified
WA037-011002-	BALLYNATRAY DEMESNE	Tomb - effigial
WA037-011001-	BALLYNATRAY DEMESNE	Religious house - Augustinian canons
WA037-002----	BALLYNATRAY DEMESNE	Ringfort - rath
WA037-005----	BALLYNATRAY DEMESNE	House - 17th century
WA037-041----	BALLYNATRAY DEMESNE	House - 17th century
WA037-033----	BALLYNATRAY DEMESNE	House - 17th century
WA037-034----	BALLYNATRAY DEMESNE	Water mill - unclassified
WA037-011004-	BALLYNATRAY DEMESNE	Graveslab
WA037-011003-	BALLYNATRAY DEMESNE	Gateway
WA037-059----	BALLYNATRAY DEMESNE	House - 17th century
WA034-038----	BALLYNEETY (Coshmore and Coshbride By.)	House - 17th century
WA031-026----	BALLYNEETY (Decies without Drum By.)	Burial ground
WA031-056----	BALLYNEETY (Decies without Drum By.), KILGOBNET, KILLADANGAN	Mill - unclassified
WA003-051002-	BALLYNEVIN	Ritual site - holy well
WA003-076----	BALLYNEVIN	House - 17th century
WA003-051001-	BALLYNEVIN	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA003-051003-	BALLYNEVIN	Earthwork
WA003-051004-	BALLYNEVIN	Architectural fragment
WA003-104----	BALLYNEVIN	Enclosure
WA023-065----	BALLYNEVOGA	Burnt mound
WA023-032----	BALLYNEVOGA	Ringfort - unclassified
WA023-045----	BALLYNEVOGA	Church
WA023-046----	BALLYNEVOGA	Ogham stone
WA025-017----	BALLYPHILIP	Ringfort - unclassified
WA025-089----	BALLYPHILIP	Mill - unclassified
WA025-088001-	BALLYPHILIP	Graveyard
WA034-050----	BALLYPHILIP EAST	House - 17th century
WA034-008----	BALLYPHILIP WEST	Enclosure
WA034-049----	BALLYPHILIP WEST	House - 17th century
WA034-066----	BALLYPHILIP WEST, BALLYPHILIP EAST	Ritual site - holy well
WA038-031----	BALLYQUIN (Decies within Drum By.)	Ringfort - rath
WA003-032----	BALLYQUIN (Upperthird By.)	Ogham stone
WA003-079----	BALLYQUIN (Upperthird By.)	Stone circle
WA003-078001-	BALLYQUIN (Upperthird By.)	House - 17th century
WA003-049----	BALLYQUIN (Upperthird By.)	Megalithic tomb - portal tomb
WA003-077----	BALLYQUIN (Upperthird By.)	Souterrain
WA003-078002-	BALLYQUIN (Upperthird By.)	House - 17th century
WA003-050----	BALLYQUIN (Upperthird By.)	Megalithic structure
WA003-054----	BALLYQUIN (Upperthird By.)	Souterrain
WA003-052----	BALLYQUIN (Upperthird By.)	Ringfort - unclassified
WA003-053----	BALLYQUIN (Upperthird By.)	Ringfort - unclassified
WA003-109----	BALLYQUIN (Upperthird By.)	Standing stone
WA021-032----	BALLYRAFTER	Settlement cluster
WA025-125----	BALLYRISTEEN	Ritual site - holy well

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA037-009----	BALLYRUSSEL	Earthwork
WA021-019009-	BALLYSAGGART BEG (East)	Mound
WA021-038----	BALLYSAGGART BEG (West),BALLYSAGGART BEG GLEBE	House - 17th century
WA029-016----	BALLYSAGGARTBEGHILL	Enclosure
WA020-007----	BALLYSAGGARTMORE	Enclosure
WA020-006----	BALLYSAGGARTMORE	Standing stone
WA020-029----	BALLYSAGGARTMORE	Souterrain
WA040-001002-	BALLYSALLAGH	Souterrain
WA040-001001-	BALLYSALLAGH	Ringfort - rath
WA026-025----	BALLYSCANLAN	Ringfort - unclassified
WA026-024001-	BALLYSCANLAN	Ringfort - rath
WA026-023001-	BALLYSCANLAN	Ringfort - rath
WA026-024002-	BALLYSCANLAN	Souterrain
WA026-026----	BALLYSCANLAN	Ringfort - unclassified
WA026-027----	BALLYSCANLAN	Enclosure
WA026-055----	BALLYSCANLAN	House - 17th century
WA026-072----	BALLYSCANLAN	Burnt mound
WA026-023002-	BALLYSCANLAN	Souterrain
WA027-048----	BALLYSHONEEN	House - 17th century
WA027-079----	BALLYSHONEEN	Enclosure
WA016-006----	BALLYSHONOCK	Enclosure
WA016-012----	BALLYSHONOCK	Ringfort - unclassified
WA016-013----	BALLYSHONOCK	Burnt mound
WA016-014----	BALLYSHONOCK	Burnt mound
WA016-014001-	BALLYSHONOCK	Burnt mound
WA016-065----	BALLYSHONOCK	Enclosure
WA016-135----	BALLYSHONOCK	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-144----	BALLYSHONOCK	Enclosure
WA016-005----	BALLYSHONOCK, HACKETSTOWN (Decies within Drum By.), ROSS (Decies without Drum By.)	Burnt mound
WA016-093----	BALLYSHONOCK, HACKETSTOWN (Middlethird By.)	Enclosure
WA003-069001-	BALLYSLOUGH	House - 17th century
WA003-069002-	BALLYSLOUGH	House - 17th century
WA007-005----	BALLYTHOMAS	Ringfort - rath
WA007-003----	BALLYTHOMAS	Ringfort - rath
WA009-036----	BALLYTRUCKLE	Windmill
WA016-002----	BALLYVADD	Ringfort - rath
WA024-029----	BALLYVADDEN	Ringfort - unclassified
WA024-027----	BALLYVADDEN	Ringfort - rath
WA025-002----	BALLYVADDEN	Ringfort - rath
WA025-001----	BALLYVADDEN	Ringfort - rath
WA025-019----	BALLYVADDEN	Ringfort - rath
WA025-018----	BALLYVADDEN	Enclosure
WA025-020----	BALLYVADDEN	Earthwork
WA025-126----	BALLYVADDEN	Burnt spread
WA024-120----	BALLYVADDEN	Burnt spread
WA024-118----	BALLYVADDEN	Burnt mound
WA024-119----	BALLYVADDEN	Burnt mound
WA020-025----	BALLYVECANE LOWER	Ritual site - holy well
WA026-002002-	BALLYVELLON	Enclosure
WA026-002001-	BALLYVELLON	Ogham stone
WA026-001----	BALLYVELLON	Standing stone
WA024-062002-	BALLYVOONY	Field boundary
WA024-064----	BALLYVOONY	Ringfort - rath
WA024-062001-	BALLYVOONY	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA024-063----	BALLYVOONY	Ringfort - rath
WA032-014----	BALLYVOONY	Promontory fort - coastal
WA024-062003-	BALLYVOONY	House - indeterminate date
WA018-016----	BALLYVOREEN	Ringfort - unclassified
WA018-071----	BALLYVOREEN	Enclosure
WA032-002----	BALLYVOYLE	Ringfort - rath
WA032-003----	BALLYVOYLE	Ringfort - rath
WA032-004----	BALLYVOYLE	Ringfort - rath
WA032-006----	BALLYVOYLE	Barrow - mound barrow
WA032-022001-	BALLYVOYLE	Cairn - unclassified
WA032-025----	BALLYVOYLE	Ringfort - unclassified
WA032-007----	BALLYVOYLE	Standing stone
WA032-019----	BALLYVOYLE	Burial
WA032-022002-	BALLYVOYLE	Prehistoric site - lithic scatter
WA032-023----	BALLYVOYLE	Cairn - unclassified
WA032-024----	BALLYVOYLE	Ringfort - unclassified
WA032-026----	BALLYVOYLE	Ringfort - unclassified
WA032-027----	BALLYVOYLE	Ringfort - rath
WA032-001----	BALLYVOYLE	Earthwork
WA032-005----	BALLYVOYLE	Standing stone
WA029-007----	BALLYWELLIGAN	Standing stone
WA023-011002-	BARNANKILE	Bawn
WA023-040----	BARNANKILE	Burial
WA023-038----	BARNANKILE	Linear earthwork
WA023-039----	BARNANKILE	Linear earthwork
WA023-011003-	BARNANKILE	House - 17th century
WA023-011001-	BARNANKILE	House - 17th century
WA014-054----	BARRACREEMOUNTAIN LOWER	House - indeterminate date

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA014-058003-	BARRACREEMOUNTAIN LOWER	Hut site
WA014-058001-	BARRACREEMOUNTAIN LOWER	Enclosure
WA014-058004-	BARRACREEMOUNTAIN LOWER	Hut site
WA014-058002-	BARRACREEMOUNTAIN LOWER	Hut site
WA014-061----	BARRACREEMOUNTAIN LOWER	Enclosure
WA014-059----	BARRACREEMOUNTAIN LOWER	Sheepfold
WA014-060----	BARRACREEMOUNTAIN LOWER	Standing stone
WA014-055----	BARRACREEMOUNTAIN UPPER	Cairn - unclassified
WA030-074----	BARRANASTOOK LOWER	Enclosure
WA018-020----	BARRISTOWN	Ringfort - unclassified
WA018-018----	BARRISTOWN	Ringfort - unclassified
WA018-019----	BARRISTOWN	Ringfort - unclassified
WA018-079----	BARRISTOWN	Enclosure
WA038-034----	BAWNAGARRANE	Ringfort - unclassified
WA038-054----	BAWNAGARRANE	Ritual site - holy well
WA038-044----	BAWNAGARRANE	Castle - unclassified
WA009-034002-	BAWNDAW	Excavation - miscellaneous
WA009-034003-	BAWNDAW	Excavation - miscellaneous
WA009-034001-	BAWNDAW	Excavation - miscellaneous
WA009-014----	BAWNDAW,GRACEDIEU EAST,GRACEDIEU WEST	Bastioned fort
WA017-130----	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Kiln - corn-drying
WA017-132----	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Fulacht fia
WA017-133----	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Burnt mound
WA017-129----	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Hut site
WA017-131001-	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Excavation - miscellaneous
WA017-131002-	BAWNFUNE (Gaultiere By., Lisnakill Par.)	Burnt mound
WA001-043----	BAWNFUNE (Glenahiry By.)	Souterrain
WA005-004----	BAWNFUNE (Glenahiry By.)	Well

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA005-003001-	BAWNFUNE (Glenahiry By.)	Church
WA005-003002-	BAWNFUNE (Glenahiry By.)	Enclosure
WA005-043----	BAWNFUNE (Glenahiry By.)	House - 17th century
WA005-048----	BAWNFUNE (Glenahiry By.)	Cairn - unclassified
WA034-043----	BAWNLAUR, KILLEENAGH NORTH	Standing stone
WA008-024001-	BEALLOUGH	House - 17th century
WA008-024002-	BEALLOUGH	House - 17th century
WA008-008----	BEALLOUGH	Enclosure
WA025-130----	BENVOY	Promontory fort - coastal
WA029-026001-	BEWLEY	Ringfort - rath
WA029-026002-	BEWLEY	Midden
WA029-073----	BEWLEY	Burial
WA029-024003-	BEWLEY	Graveyard
WA029-024004-	BEWLEY	Walled garden
WA029-024006-	BEWLEY	Inscribed stone
WA029-024005-	BEWLEY	Bullaun stone
WA029-024001-	BEWLEY	Church
WA029-024002-	BEWLEY	Building
WA029-015----	BEWLEY, CLASHNADARRIV, CURRAGHMOREEN, KNOCKALAHARA, QUARTER, SPRINGFIELD (Decies without Drum By.)	Road - road/trackway
WA018-039----	BISHOPSCOURT	Castle - unclassified
WA018-040001-	BISHOPSCOURT	House - 17th century
WA018-040002-	BISHOPSCOURT	House - 17th century
WA018-088----	BISHOPSCOURT	Fulacht fia
WA003-084----	BISHOPSTOWN	Church
WA007-009----	BISHOPSTOWN	Cist
WA016-033----	BLACKKNOCK	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-034----	BLACKKNOCK	Ringfort - unclassified
WA013-019----	BLEANTASOUR	Ringfort - rath
WA013-018----	BLEANTASOUR	Ringfort - rath
WA013-040----	BLEANTASOUR	Children's burial ground
WA013-039----	BLEANTASOUR	Ringfort - rath
WA013-017----	BLEANTASOUR	Ringfort - rath
WA014-047----	BLEANTASOUR MOUNTAIN	Booley hut
WA014-046----	BLEANTASOUR MOUNTAIN	Standing stone
WA023-050----	BOHADOON MOUNTAIN	Standing stone
WA023-012----	BOHADOON SOUTH	Ringfort - rath
WA034-084----	BOOLA (Coshmore and Coshbride By., Templemichael Par.)	House - 17th century
WA007-016----	BOOLABEG	Ringfort - unclassified
WA007-017----	BOOLABEG	Enclosure
WA007-082----	BOOLABEG	Fulacht fia
WA007-094----	BOOLABEG	Fulacht fia
WA005-006----	BOOLABRIEN UPPER	Enclosure
WA023-005----	BOOLATTIN	Ringfort - rath
WA023-006001-	BOOLATTIN	Church
WA023-006002-	BOOLATTIN	Graveyard
WA023-061----	BOOLATTIN, CURRAUN	Cairn - boundary cairn
WA024-053----	BRENAN	Earthwork
WA024-082----	BRENAN	Standing stone
WA024-083----	BRENAN	Settlement cluster
WA024-084----	BRENAN	Enclosure
WA024-081001-	BRENAN	Standing stone
WA024-081002-	BRENAN	Standing stone
WA029-069----	BRIDANE LOWER,BRIDANE UPPER	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA030-012001-	BRIDGEQUARTER (Decies without Drum By.)	Cave
WA030-014----	BRIDGEQUARTER (Decies without Drum By.)	Enclosure
WA030-011----	BRIDGEQUARTER (Decies without Drum By.)	Road - road/trackway
WA015-046----	BRISKA LOWER	Ringfort - unclassified
WA024-001----	BRISKA LOWER	Church
WA013-021----	BROEMOUNTAIN (Decies without Drum By., Lickoran Par.)	Standing stone
WA013-052----	BROEMOUNTAIN (Decies without Drum By., Lickoran Par.)	Enclosure
WA004-016----	BROWNSWOOD	Burnt mound
WA004-017----	BROWNSWOOD	Burnt mound
WA004-006----	BROWNSWOOD	Settlement cluster
WA017-114----	BUTLERSTOWN NORTH	Cist
WA017-136----	BUTLERSTOWN NORTH	Excavation - miscellaneous
WA017-137----	BUTLERSTOWN NORTH	Excavation - miscellaneous
WA017-074----	BUTLERSTOWN SOUTH	House - 17th century
WA017-009001-	BUTLERSTOWN SOUTH	Architectural fragment
WA017-008----	BUTLERSTOWN SOUTH	Castle - tower house
WA017-009002-	BUTLERSTOWN SOUTH	Architectural feature
WA017-074001-	BUTLERSTOWN SOUTH	House - 17th century
WA026-037----	CAHER	Enclosure
WA001-019001-	CAHERBAUN	Ringfort - rath
WA001-020----	CAHERBAUN	Ringfort - rath
WA001-019002-	CAHERBAUN	Souterrain
WA013-015----	CAHERBRACK	Ringfort - rath
WA019-005----	CAHERGAL	Enclosure
WA013-010----	CAHERNALEAGUE	Barracks
WA013-011----	CAHERNALEAGUE	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-049----	CAHERUANE	Ringfort - rath
WA029-033----	CAMPHIRE	Castle - tower house
WA029-032----	CAMPHIRE HILL	Ritual site - holy well
WA030-021----	CANTY	Ringfort - rath
WA030-086----	CANTY	Burial
WA030-006002-	CAPPAGH (Decies without Drum By.)	Bawn
WA030-005----	CAPPAGH (Decies without Drum By.)	Fulacht fia
WA030-007----	CAPPAGH (Decies without Drum By.)	Crannog
WA030-006003-	CAPPAGH (Decies without Drum By.)	Cross-inscribed stone (present location)
WA030-006001-	CAPPAGH (Decies without Drum By.)	Castle - tower house
WA030-077----	CAPPAGH (Decies without Drum By.)	House - 17th century
WA030-080----	CAPPAGH (Decies without Drum By.)	Barrow - mound barrow
WA021-037001-	CAPPOQUIN	Ritual site - holy/saint's stone
WA021-037002-	CAPPOQUIN	Ritual site - holy/saint's stone
WA021-034----	CAPPOQUIN	Mill - unclassified
WA021-036----	CAPPOQUIN	Mine
WA021-014001-	CAPPOQUIN	Bridge
WA021-015----	CAPPOQUIN DEMESNE	Ritual site - holy well
WA021-035----	CAPPOQUIN DEMESNE	Castle - unclassified
WA021-016----	CAPPOQUIN DEMESNE	Burial ground
WA021-014002-	CAPPOQUIN,KILBREE EAST	Road - road/trackway
WA034-057----	CARNGLASS	Cairn - unclassified
WA034-056----	CARNGLASS	Cairn - unclassified
WA016-109----	CARRICKADUSTARA	Souterrain
WA024-049----	CARRICKAHILLA	Castle - unclassified
WA024-050----	CARRICKAHILLA	Earthwork
WA024-057----	CARRICKAHILLA	Ringfort - rath
WA024-059----	CARRICKAHILLA	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-029----	CARRICKANURE	Ringfort - rath
WA016-008----	CARRICKANURE	Megalithic structure
WA016-102----	CARRICKANURE	Standing stone
WA016-103----	CARRICKANURE	Standing stone
WA016-141----	CARRICKANURE	Enclosure
WA016-146----	CARRICKANURE	Enclosure
WA024-041----	CARRICKAREADY	Enclosure
WA024-106----	CARRICKAREADY	Enclosure
WA024-115----	CARRICKAREADY	Fulacht fia
WA024-116----	CARRICKAREADY	Burnt mound
WA024-117----	CARRICKAREADY	Burnt mound
WA017-093----	CARRICKAVARAHANE	Cairn - unclassified
WA026-007----	CARRICKAVARAHANE	Enclosure
WA026-081----	CARRICKAVARAHANE	Standing stone
WA026-028----	CARRICKAVRANTRY	Megalithic tomb - wedge tomb
WA026-070----	CARRICKAVRANTRY NORTH,CARRICKAVRANTRY SOUTH	Road - unclassified togher
WA003-087----	CARRICKBEG	Standing stone
WA003-072----	CARRICKBEG	Standing stone
WA003-092----	CARRICKBEG	Boundary stone
WA009-030----	CARRICKPHIERISH	Excavation - miscellaneous
WA016-050----	CARRICKPHILIP	Ringfort - rath
WA016-080----	CARRICKPHILIP	Cairn - unclassified
WA016-079----	CARRICKPHILIP	Standing stone
WA016-078----	CARRICKPHILIP	House - 17th century
WA017-115----	CARRIGANARD	Enclosure
WA017-079----	CARRIGANARD	Settlement cluster
WA017-120----	CARRIGANARD	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA022-024----	CARRIGAUN (Hely)	Ringfort - rath
WA022-006----	CARRIGAUN (Mansfield)	Ringfort - unclassified
WA017-017----	CARRIGAVOE	Ringfort - rath
WA017-126----	CARRIGAVOE	Kiln
WA014-053----	CARRIGBRACK	House - indeterminate date
WA014-030001-	CARRIGBRACK	Fulacht fia
WA014-030003-	CARRIGBRACK	Field boundary
WA014-030002-	CARRIGBRACK	Cairnfield
WA024-038----	CARRIGCASTLE	Castle - unclassified
WA024-039----	CARRIGCASTLE	Souterrain
WA024-079----	CARRIGCASTLE	House - 17th century
WA024-078001-	CARRIGCASTLE	Ritual site - holy well
WA024-075----	CARRIGCASTLE	Enclosure
WA024-077----	CARRIGCASTLE	House - 17th century
WA024-076----	CARRIGCASTLE	Enclosure
WA034-060----	CARRIGEEN (Coshmore and Coshbride By.)	House - 17th century
WA034-027----	CARRIGEEN (Coshmore and Coshbride By.)	Ringfort - unclassified
WA034-083----	CARRIGEEN (Coshmore and Coshbride By.)	House - 17th century
WA015-060----	CARRIGEEN (Decies without Drum By., Rossduff Par.)	Ringfort - rath
WA015-012----	CARRIGEEN (Decies without Drum By., Rossduff Par.)	Ringfort - rath
WA006-033----	CARRIGEEN (Upperthird By.)	Standing stone
WA006-037----	CARRIGEEN (Upperthird By.)	Sheepfold
WA006-032----	CARRIGEEN (Upperthird By.)	Fulacht fia
WA006-067----	CARRIGEEN (Upperthird By.),GRAIGAVALLA	Road - road/trackway
WA023-018----	CARRIGEENNAGERAGH BIG	Enclosure
WA023-030001-	CARRIGEENNAGERAGH BIG,SHANBALLY (Decies without Drum By.)	Enclosure
WA024-101----	CARRIGEENNAHAHA	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA030-044001-	CARRIGLEA (Decies without Drum By.)	Settlement deserted - medieval
WA030-045----	CARRIGLEA (Decies without Drum By.)	Ringfort - unclassified
WA030-047----	CARRIGLEA (Decies without Drum By.)	Ringfort - unclassified
WA030-048----	CARRIGLEA (Decies without Drum By.)	Earthwork
WA030-046----	CARRIGLEA (Decies without Drum By.)	Burial ground
WA030-044002-	CARRIGLEA (Decies without Drum By.)	Burial
WA017-054----	CARRIGLONG	Enclosure
WA017-057----	CARRIGLONG	Megalithic tomb - passage tomb
WA017-056----	CARRIGLONG	Enclosure
WA017-113----	CARRIGLONG	Burnt mound
WA023-019----	CARRIGMOORNA	Cliff-edge fort
WA023-019001-	CARRIGMOORNA	Standing stone
WA021-005----	CARRIGNAGOWER EAST	Enclosure
WA021-004----	CARRIGNAGOWER WEST	Ritual site - holy well
WA015-099----	CARRIGNANONSHAGH	Burnt mound
WA033-005001-	CARRIGROE (Coshmore and Coshbride By.)	Penitential station
WA030-065----	CARRIGROE (Decies without Drum By.)	Standing stone
WA017-070----	CARRIGROE (Gaultiere By.)	Settlement cluster
WA035-008----	CARRONADAVDERG	Cairn - unclassified
WA035-029----	CARRONAHYLA	Standing stone
WA002-021----	CARROWCLOUGH (Upperthird By., Dysert Par.)	Ringfort - rath
WA002-058----	CARROWCLOUGH (Upperthird By., Dysert Par.)	House - 17th century
WA022-044----	CARROWGARRIFF MORE	Enclosure
WA003-041----	CARROWLEIGH	Enclosure
WA003-096----	CARROWLEIGH	Burnt mound
WA003-042----	CARROWLEIGH	Ringfort - unclassified
WA003-040002-	CARROWLEIGH,RATHGORMUCK	Graveyard

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-006----	CARROWNCASHLANE (Decies without Drum By., Kilgobnet Par.)	Castle - tower house
WA024-100----	CARROWNTASSONA	Standing stone
WA025-024----	CASTLECRADDOCK	Ringfort - unclassified
WA025-110----	CASTLECRADDOCK	Castle - unclassified
WA025-025----	CASTLECRADDOCK	Enclosure
WA025-023----	CASTLECRADDOCK	Ritual site - holy well
WA020-016----	CASTLELANDS,GLENMORRISHMEEN,TOORTANE,TOWNPARKS WEST (Coshmore and Coshbride By., Lismore Par.)	Road - road/trackway
WA037-021001-	CASTLEMILES	Moated site
WA037-022----	CASTLEMILES	Ringfort - rath
WA037-021002-	CASTLEMILES	Castle - unclassified
WA023-035001-	CASTLEQUARTER (Decies without Drum By., Kilrossanty Par.)	Castle - tower house
WA023-035002-	CASTLEQUARTER (Decies without Drum By., Kilrossanty Par.)	Bawn
WA023-035003-	CASTLEQUARTER (Decies without Drum By., Kilrossanty Par.)	Dovecote
WA023-035004-	CASTLEQUARTER (Decies without Drum By., Kilrossanty Par.)	House - 17th century
WA022-015----	CASTLEQUARTER (Decies without Drum By., Modelligo Par.)	Castle - tower house
WA005-008----	CASTLEQUARTER (Glenahiry By.)	Castle - tower house
WA005-009----	CASTLEQUARTER (Glenahiry By.),KILCREGGANE,KILGREANY (Glenahiry By.),WHITEHOUSEQUARTER	Bridge
WA005-038001-	CASTLEQUARTER (Glenahiry By.),SMALLQUARTER	House - 17th century
WA005-027001-	CASTLEREAGH	Castle - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA005-027002-	CASTLEREAGH	House - 17th century
WA005-054----	CASTLEREAGH	Standing stone
WA005-032----	CASTLEREAGH	Enclosure - large enclosure
WA013-005----	CASTLEREAGH	Barrow - ring-barrow
WA013-006----	CASTLEREAGH	Barrow - ring-barrow
WA017-060002-	CASTLETOWN	Standing stone
WA017-062----	CASTLETOWN	Enclosure
WA017-061----	CASTLETOWN	Enclosure
WA017-107002-	CASTLETOWN	Standing stone
WA017-060001-	CASTLETOWN	Embanked enclosure
WA017-063----	CASTLETOWN	House - 17th century
WA017-107001-	CASTLETOWN	Standing stone
WA033-018----	CHURCHQUARTER (Coshmore and Coshbride By.)	House - 17th century
WA033-005----	CHURCHQUARTER (Coshmore and Coshbride By.)	Ritual site - holy well
WA033-006----	CHURCHQUARTER (Coshmore and Coshbride By.)	Mill - unclassified
WA033-004001-	CHURCHQUARTER (Decies without Drum By.),KILWATERMOY	Ecclesiastical enclosure
WA003-003----	CHURCHTOWN	Enclosure
WA003-001006-	CHURCHTOWN	Armorial plaque
WA003-001007-	CHURCHTOWN	Font
WA003-001001-	CHURCHTOWN	Church
WA003-001002-	CHURCHTOWN	Graveyard
WA003-001004-	CHURCHTOWN	Graveslab
WA003-001003-	CHURCHTOWN	Graveslab
WA003-001008-	CHURCHTOWN	Armorial plaque
WA003-056001-	CHURCHTOWN	House - 17th century
WA003-056002-	CHURCHTOWN	House - 17th century
WA003-098----	CHURCHTOWNHILL	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA036-009----	CILL AN FHUARTHAINN	Enclosure
WA037-007----	CLASHMORE	Ritual site - holy well
WA037-008003-	CLASHMORE	Graveyard
WA037-008004-	CLASHMORE	Cross-inscribed stone
WA037-008001-	CLASHMORE	Church
WA037-008002-	CLASHMORE	Church
WA037-008006-	CLASHMORE	Cross
WA037-008005-	CLASHMORE	Bullaun stone
WA004-009----	CLASHROE	Standing stone
WA030-052----	CLOGH	Moated site
WA004-024----	CLONAGAM	Stone head
WA004-028----	CLONAGAM	Architectural fragment
WA005-039----	CLONANAV	Enclosure
WA005-016----	CLONANAV	Enclosure
WA031-018----	CLONCOSKORAN	Enclosure
WA031-031----	CLONCOSKORAN	Castle - tower house
WA031-053001-	CLONCOSKORAN	House - 17th century
WA031-019002-	CLONCOSKORAN,GARRANBAUN	Ringfort - rath
WA031-019001-	CLONCOSKORAN,GARRANBAUN	Hilltop enclosure
WA002-037----	CLONDONNELL	Ringfort - rath
WA002-042----	CLONDONNELL	Enclosure
WA002-041----	CLONDONNELL	Enclosure
WA007-021002-	CLONEA	Bawn
WA007-021003-	CLONEA	House - indeterminate date
WA007-021001-	CLONEA	Castle - tower house
WA031-037001-	CLONEA LOWER	Church
WA031-037002-	CLONEA LOWER	Graveyard
WA031-038----	CLONEA LOWER	Castle - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-039----	CLONEA LOWER	Structure
WA031-066----	CLONEA LOWER	Burnt mound
WA031-021----	CLONEA UPPER	Enclosure
WA007-070----	CLONEA,MONMINANE	House - 17th century
WA026-076----	CLONFADDA,KILCARTON	Cairn - unclassified
WA030-034----	CLONKERDIN	Burnt mound
WA030-032----	CLONKERDIN	Castle - unclassified
WA030-033----	CLONKERDIN	Fulacht fia
WA030-092----	CLONKERDIN,KEEREEN LOWER,KNOCKNASKAGH UPPER,KEEREEN UPPER	Road - road/trackway
WA007-061----	CLONMOYLE	Mill - unclassified
WA013-027----	CLOONCOGAILE	Enclosure
WA013-026----	CLOONCOGAILE,KILCLOONEY	Ringfort - unclassified
WA021-008001-	CLUTTAHINA	Concentric enclosure
WA021-031001-	CLUTTAHINA	Hut site
WA021-008002-	CLUTTAHINA	Souterrain
WA021-031002-	CLUTTAHINA	Midden
WA012-006----	CLUTTAHINA,COOLNACREENA,Unknown	Road - road/trackway
WA022-036----	CNOCÁ□N AN PHAORAIGH Á□OCHTARACH (Bar. Na Déise lasmuigh den Drom)	Ringfort - unclassified
WA022-037----	CNOCÁ□N AN PHAORAIGH Á□OCHTARACH (Bar. Na Déise lasmuigh den Drom)	Ringfort - unclassified
WA022-061----	CNOCÁ□N AN PHAORAIGH UACHTARACH (Bar. Na Déise lasmuigh den Drom)	Water mill - horizontal-wheeled
WA022-021----	CNOCÁ□N AN PHAORAIGH UACHTARACH (Bar. Na Déise lasmuigh den Drom)	Enclosure
WA022-046001-	COLLIGAN BEG	Church
WA022-046002-	COLLIGAN BEG	Graveyard

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA022-046003-	COLLIGAN BEG	Bullaun stone
WA022-045----	COLLIGAN BEG	Church
WA022-056----	COLLIGAN MORE	Children's burial ground
WA014-003----	COMERAGH	Ringfort - rath
WA014-014----	COMERAGH	Ringfort - rath
WA014-056001-	COMERAGH	Hut site
WA015-045----	COMERAGHHOUSE	Enclosure
WA014-019----	COMERAGHHOUSE	Enclosure
WA014-035001-	COMERAGHMOUNTAIN	Fulacht fia
WA014-036----	COMERAGHMOUNTAIN	Fulacht fia
WA014-002----	COMERAGHMOUNTAIN	Sheepfold
WA014-056----	COMERAGHMOUNTAIN	Cairnfield
WA014-066----	COMERAGHMOUNTAIN	Burial
WA006-062----	COMMONS (Upperthird By.),ROSS (Upperthird By.),BOOLACLOGHAGH	Cairn - unclassified
WA020-004002-	COOL (Coshmore and Coshbride By.)	Children's burial ground
WA020-004001-	COOL (Coshmore and Coshbride By.)	Enclosure
WA020-022----	COOL (Coshmore and Coshbride By.)	Standing stone
WA020-031----	COOL (Coshmore and Coshbride By.)	Standing stone (present location)
WA030-039----	COOL (Decies without Drum By.)	Burnt mound
WA021-041----	COOLADALANE LOWER,COOLADALANE UPPER	Standing stone
WA034-025----	COOLBAGH	Ringfort - rath
WA034-036----	COOLBAGH,KILMORE	Enclosure
WA034-017----	COOLBEGGAN EAST	Ringfort - unclassified
WA034-068----	COOLBEGGAN EAST,COOLBEGGAN WEST	Standing stone
WA010-003001-	COOLBUNNIA	Church
WA010-011----	COOLBUNNIA	Enclosure
WA010-001002-	COOLBUNNIA	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA010-003002-	COOLBUNNIA	Graveyard
WA010-005----	COOLBUNNIA	Castle - tower house
WA010-020----	COOLBUNNIA	Settlement cluster
WA010-001001-	COOLBUNNIA	Enclosure
WA010-004----	COOLBUNNIA	Castle - motte
WA010-003003-	COOLBUNNIA	Font
WA010-003004-	COOLBUNNIA	Bullaun stone
WA010-003005-	COOLBUNNIA	Bullaun stone
WA008-010001-	COOLFINN	Church
WA008-010005-	COOLFINN	Armorial plaque
WA008-010003-	COOLFINN	Tomb - effigial
WA008-010004-	COOLFINN	Tomb - chest tomb
WA008-010007-	COOLFINN	Bullaun stone
WA008-010008-	COOLFINN	Graveslab
WA008-010002-	COOLFINN	Graveyard
WA008-023001-	COOLFINN	House - 17th century
WA008-023002-	COOLFINN	House - 17th century
WA008-010012-	COOLFINN	Bullaun stone
WA002-012----	COOLISHAL (Upperthird By.)	Ringfort - rath
WA002-057001-	COOLISHAL (Upperthird By.),GURTEEN LOWER,GURTEEN UPPER	House - 17th century
WA002-057002-	COOLISHAL (Upperthird By.),GURTEEN LOWER,GURTEEN UPPER	House - 17th century
WA026-058----	COOLNAGOPPOGE	House - 17th century
WA026-039----	COOLNAGOPPOGE	Ringfort - unclassified
WA026-040----	COOLNAGOPPOGE	Ringfort - rath
WA026-074----	COOLNAGOPPOGE	Burnt mound
WA007-069----	COOLNAHORNA	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA007-069001-	COOLNAHORNA	Graveyard
WA007-026----	COOLNALINGADY	Ringfort - rath
WA007-025----	COOLNALINGADY	Enclosure
WA007-068----	COOLNALINGADY	Linear earthwork
WA003-005----	COOLNAMUCK DEMESNE	Ritual site - holy well
WA003-008002-	COOLNAMUCK DEMESNE	Bawn
WA003-009----	COOLNAMUCK DEMESNE	Well
WA003-008005-	COOLNAMUCK DEMESNE	Inscribed stone
WA003-008001-	COOLNAMUCK DEMESNE	Castle - tower house
WA003-061----	COOLNAMUCK DEMESNE	Urn burial
WA003-060001-	COOLNAMUCK DEMESNE	Mill - unclassified
WA003-060002-	COOLNAMUCK DEMESNE	House - 17th century
WA003-090----	COOLNAMUCK DEMESNE	Burnt mound
WA003-091----	COOLNAMUCK DEMESNE	Burnt mound
WA003-089----	COOLNAMUCK DEMESNE	Burnt mound
WA003-058----	COOLNAMUCK DEMESNE	Weir - fish
WA003-004----	COOLNAMUCK DEMESNE	Inscribed stone (present location)
WA030-020----	COOLNANAV	Water mill - horizontal-wheeled
WA030-084----	COOLNANAV	Cave
WA022-053----	COOLNASMEAR LOWER	Standing stone
WA023-020----	COOLNASMEAR LOWER	Kiln - lime
WA023-013----	COOLNASMEAR LOWER	Earthwork
WA022-052----	COOLNASMEAR LOWER,COOLNASMEAR UPPER	Graveyard
WA023-021----	COOLNASMEAR UPPER	Ringfort - unclassified
WA023-014----	COOLNASMEAR UPPER	Ringfort - rath
WA023-015----	COOLNASMEAR UPPER	Enclosure
WA023-022----	COOLNASMEAR UPPER	Ringfort - unclassified
WA023-055----	COOLNASMEARMOUNTAIN,GLENDALLIGAN	Cairn - boundary cairn

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-036----	COOLNASMEARMOUNTAIN,KILNAFREHANMOUNTAIN ,MONARUDMOUNTAIN	Cairn - unclassified
WA008-021----	COOLROE (Upperthird By., Clonagam Par.),GUILCAGH	Weir - fish
WA003-026----	COOLROE (Upperthird By., Mothel Par.)	Ringfort - unclassified
WA003-048----	COOLROE (Upperthird By., Mothel Par.)	Ringfort - unclassified
WA018-046----	COOLTEGIN	Souterrain
WA027-066----	COOLUM (Gaultiere By., Corbally Par.)	Rock art
WA027-037----	COOLUM (Gaultiere By., Corbally Par.)	Promontory fort - coastal
WA027-067----	COOLUM (Gaultiere By., Corbally Par.)	Settlement deserted - medieval
WA027-074----	COOLUM (Gaultiere By., Rathmoylan Par.)	Settlement cluster
WA028-003----	COOLYDOODY NORTH	Ringfort - rath
WA028-004----	COOLYDOODY NORTH	Enclosure
WA027-030001-	CORBALLY BEG	Cist
WA027-030002-	CORBALLY BEG	Standing stone
WA027-077----	CORBALLY BEG	Enclosure
WA027-030004-	CORBALLY BEG	Pit-burial
WA027-058----	CORBALLY BEG	House - 17th century
WA027-084----	CORBALLY BEG	Enclosure
WA027-057----	CORBALLY BEG	Burial
WA027-070----	CORBALLY BEG,CORBALLY MORE	Settlement cluster
WA027-025001-	CORBALLY MORE	Burnt spread
WA026-068001-	CORBALLY MORE	Tide mill - unclassified
WA026-068002-	CORBALLY MORE	Weir - fish
WA027-061----	CORBALLY MORE	House - 17th century
WA027-075----	CORBALLY MORE	Standing stone
WA027-029----	CORBALLY MORE	Ringfort - unclassified
WA027-027----	CORBALLY MORE	Enclosure
WA027-085----	CORBALLY MORE	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA013-042----	CORRADOON	Pit-burial
WA023-066003-	COUMARAGLINMOUNTAIN	Fulacht fia
WA014-033004-	COUMARAGLINMOUNTAIN	Barrow - ring-barrow
WA014-033005-	COUMARAGLINMOUNTAIN	Fulacht fia
WA014-033010-	COUMARAGLINMOUNTAIN	Standing stone - pair
WA014-033011-	COUMARAGLINMOUNTAIN	Cairn - burial cairn
WA014-033012-	COUMARAGLINMOUNTAIN	Cairn - burial cairn
WA014-033013-	COUMARAGLINMOUNTAIN	Cairn - ring-cairn
WA014-033014-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA014-033020-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033021-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033022-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033027-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033028-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033015-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA014-033023-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033024-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033025-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033026-	COUMARAGLINMOUNTAIN	Booley hut
WA014-033006-	COUMARAGLINMOUNTAIN	Fulacht fia
WA014-033007-	COUMARAGLINMOUNTAIN	Kerb circle
WA014-033008-	COUMARAGLINMOUNTAIN	Kerb circle
WA014-033009-	COUMARAGLINMOUNTAIN	Kerb circle
WA014-033016-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA014-033017-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA014-033018-	COUMARAGLINMOUNTAIN	Kerb circle
WA014-033019-	COUMARAGLINMOUNTAIN	Kerb circle
WA014-033002-	COUMARAGLINMOUNTAIN	Stone row

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA014-033003-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA023-066012-	COUMARAGLINMOUNTAIN	Kerb circle
WA023-066018-	COUMARAGLINMOUNTAIN	Kerb circle
WA023-066019-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA023-066025-	COUMARAGLINMOUNTAIN	Hut site
WA023-066011-	COUMARAGLINMOUNTAIN	Enclosure
WA023-066020-	COUMARAGLINMOUNTAIN	Barrow - pond barrow
WA023-066026-	COUMARAGLINMOUNTAIN	Field system
WA023-066027-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066028-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066029-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066033-	COUMARAGLINMOUNTAIN	Hut site
WA023-066034-	COUMARAGLINMOUNTAIN	Hut site
WA023-066030-	COUMARAGLINMOUNTAIN	Cairn - ring-cairn
WA023-066036-	COUMARAGLINMOUNTAIN	Hut site
WA023-066035-	COUMARAGLINMOUNTAIN	Hut site
WA023-066046-	COUMARAGLINMOUNTAIN	Hut site
WA023-066016-	COUMARAGLINMOUNTAIN	Cairnfield
WA023-066017-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066064-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066047-	COUMARAGLINMOUNTAIN	Hut site
WA023-066048-	COUMARAGLINMOUNTAIN	Hut site
WA023-066050-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066044-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066045-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066055-	COUMARAGLINMOUNTAIN	Hut site
WA023-066060-	COUMARAGLINMOUNTAIN	Hut site
WA023-066063-	COUMARAGLINMOUNTAIN	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-066021-	COUMARAGLINMOUNTAIN	Hut site
WA023-066022-	COUMARAGLINMOUNTAIN	Hut site
WA023-066023-	COUMARAGLINMOUNTAIN	Enclosure
WA023-066024-	COUMARAGLINMOUNTAIN	Hut site
WA023-066039-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066041-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066042-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066043-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066051-	COUMARAGLINMOUNTAIN	Cairnfield
WA023-066052-	COUMARAGLINMOUNTAIN	Enclosure
WA023-066053-	COUMARAGLINMOUNTAIN	Hut site
WA023-066054-	COUMARAGLINMOUNTAIN	Hut site
WA023-066056-	COUMARAGLINMOUNTAIN	Cairnfield
WA023-066057-	COUMARAGLINMOUNTAIN	Hut site
WA023-066058-	COUMARAGLINMOUNTAIN	Hut site
WA023-066059-	COUMARAGLINMOUNTAIN	Hut site
WA023-066013-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066014-	COUMARAGLINMOUNTAIN	Kerb circle
WA023-066015-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066031-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066032-	COUMARAGLINMOUNTAIN	Field system
WA023-066037-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066038-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066049-	COUMARAGLINMOUNTAIN	Field system
WA023-066061-	COUMARAGLINMOUNTAIN	Hut site
WA023-066062-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066067-	COUMARAGLINMOUNTAIN	Cairn - ring-cairn
WA023-066068-	COUMARAGLINMOUNTAIN	Cairn - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-073----	COUMARAGLINMOUNTAIN	House - indeterminate date
WA023-066001-	COUMARAGLINMOUNTAIN	Cairn - cairn circle
WA023-066066-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA023-066070-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066073-	COUMARAGLINMOUNTAIN	Hut site
WA023-066007-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066008-	COUMARAGLINMOUNTAIN	Hut site
WA023-066009-	COUMARAGLINMOUNTAIN	Enclosure
WA023-066069-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066071-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066065-	COUMARAGLINMOUNTAIN	Kerb circle
WA023-066075-	COUMARAGLINMOUNTAIN	House - indeterminate date
WA023-066081-	COUMARAGLINMOUNTAIN	Burnt mound
WA023-066082-	COUMARAGLINMOUNTAIN	Cairn - ring-cairn
WA023-066072-	COUMARAGLINMOUNTAIN	Hut site
WA023-066077-	COUMARAGLINMOUNTAIN	House - indeterminate date
WA023-066078-	COUMARAGLINMOUNTAIN	Booley hut
WA023-066006-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066079-	COUMARAGLINMOUNTAIN	Booley hut
WA023-066002-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066004-	COUMARAGLINMOUNTAIN	Standing stone
WA023-066005-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066010-	COUMARAGLINMOUNTAIN	Hut site
WA023-066080-	COUMARAGLINMOUNTAIN	Standing stone
WA014-033029-	COUMARAGLINMOUNTAIN	Kiln - lime
WA023-066084-	COUMARAGLINMOUNTAIN	Hut site
WA023-066085-	COUMARAGLINMOUNTAIN	Hut site
WA023-076----	COUMARAGLINMOUNTAIN	Megalithic tomb - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-066040-	COUMARAGLINMOUNTAIN	Fulacht fia
WA023-066083-	COUMARAGLINMOUNTAIN	Enclosure
WA014-033030-	COUMARAGLINMOUNTAIN	Cist
WA014-033032-	COUMARAGLINMOUNTAIN	Cist
WA014-033031-	COUMARAGLINMOUNTAIN	Cist
WA014-033033-	COUMARAGLINMOUNTAIN	Cist
WA014-033034-	COUMARAGLINMOUNTAIN	Standing stone
WA014-033035-	COUMARAGLINMOUNTAIN	Cairn - unclassified
WA014-001----	COUMARAGLINMOUNTAIN,CUTTEEN NORTH	Cairn - unclassified
WA014-011001-	COUMARAGLINMOUNTAIN,CUTTEEN SOUTH	Standing stone
WA014-011004-	COUMARAGLINMOUNTAIN,CUTTEEN SOUTH	Enclosure
WA014-011002-	COUMARAGLINMOUNTAIN,CUTTEEN SOUTH	Standing stone
WA023-010----	COUMARAGLINMOUNTAIN,GLENDALLIGAN,TREENEARLA COMMONS	Standing stone
WA023-059----	COUMARAGLINMOUNTAIN,TREENEARLA COMMONS	Cairn - boundary cairn
WA010-021----	COVE	Fulacht fia
WA034-022001-	CRAGGS	Ringfort - rath
WA034-022002-	CRAGGS	Souterrain
WA034-024001-	CRAGGS,KNOCKANEARIS	Ecclesiastical enclosure
WA035-031----	CRAGGS,KNOCKANEARIS,MONAGALLY WEST,BALLINDRUMMA,BALLINURE (Decies within Drum By.)	Road - road/trackway
WA027-024----	CREADAN	Habitation site
WA027-015----	CREADAN	Ring-ditch
WA027-052----	CREADAN	House - 17th century
WA027-016----	CREADAN	Field boundary
WA027-094----	CREADAN	Fulacht fia
WA027-095----	CREADAN	Midden

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA027-096----	CREADAN	Prehistoric site - lithic scatter
WA003-028----	CREHANAGH SOUTH	Ringfort - rath
WA003-030----	CREHANAGH SOUTH	Ogham stone
WA003-027----	CREHANAGH SOUTH	Enclosure
WA003-093----	CREHANAGH SOUTH	Fulacht fia
WA003-105----	CREHANAGH SOUTH	Font (present location)
WA026-060----	CROBALLY LOWER (Middlethird By.)	Mill - unclassified
WA026-084----	CROBALLY LOWER (Middlethird By.)	Excavation - miscellaneous
WA026-095----	CROBALLY UPPER (Decies-within-Drum By.)	Pit-burial
WA026-083----	CROBALLY UPPER (Middlethird By.)	Excavation - miscellaneous
WA026-059----	CROBALLY UPPER (Middlethird By.)	House - 17th century
WA026-094----	CROBALLY UPPER (Middlethird By.)	Enclosure
WA026-096----	CROBALLY UPPER (Middlethird By.)	Pit-burial
WA018-023001-	CROOKE	Religious house - Knights Hospitallers
WA018-023002-	CROOKE	Castle - tower house
WA018-023006-	CROOKE	Field system
WA018-023007-	CROOKE	Burnt mound
WA018-023003-	CROOKE	Graveyard
WA018-010----	CROOKE	Windmill
WA018-023004-	CROOKE	Ritual site - holy well
WA018-067001-	CROSS (Gaultiere By., Kill St. Nicholas Par.)	Burnt mound
WA018-005----	CROSS (Gaultiere By., Kill St. Nicholas Par.)	Moated site
WA018-067002-	CROSS (Gaultiere By., Kill St. Nicholas Par.)	Burnt mound
WA034-020001-	CROSSERY	Ringfort - rath
WA034-055----	CROSSERY	House - 17th century
WA034-072----	CROSSERY	Fulacht fia
WA034-020002-	CROSSERY	Souterrain
WA034-069----	CROSSERY	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA034-070----	CROSSERY	Enclosure
WA034-071----	CROSSERY	Burnt mound
WA014-018001-	CROUGH (Decies without Drum By.)	Ecclesiastical enclosure
WA014-018007-	CROUGH (Decies without Drum By.)	Church
WA014-018002-	CROUGH (Decies without Drum By.)	Bullaun stone
WA014-018003-	CROUGH (Decies without Drum By.)	Bullaun stone
WA014-018004-	CROUGH (Decies without Drum By.)	Bullaun stone
WA014-018006-	CROUGH (Decies without Drum By.)	Bullaun stone
WA014-018005-	CROUGH (Decies without Drum By.)	Bullaun stone
WA025-114----	CROUGH (Middlethird By.)	Standing stone - pair
WA038-067----	CRUABHAILE Á□OCHTARACH (Bar. Na Déise laistigh den Drom)	Promontory fort - coastal
WA038-050----	CRUABHAILE Á□OCHTARACH (Bar. Na Déise laistigh den Drom),CRUABHAILE UACHTARACH (Bar. Na Déise laistigh den Drom)	Church
WA038-022002-	CRUABHAILE UACHTARACH (Bar. Na Déise laistigh den Drom)	Souterrain
WA039-008----	CRUABHAILE UACHTARACH (Bar. Na Déise laistigh den Drom)	Ringfort - unclassified
WA038-021----	CRUABHAILE UACHTARACH (Bar. Na Déise laistigh den Drom)	Ringfort - unclassified
WA038-022001-	CRUABHAILE UACHTARACH (Bar. Na Déise laistigh den Drom)	Ringfort - rath
WA038-045----	CRUSHEA	House - 17th century
WA016-069----	CULLENAGH	House - 17th century
WA008-053----	CULLENAGH	Kiln - corn-drying
WA008-054----	CULLENAGH	Excavation - miscellaneous
WA016-138----	CULLENAGH	Enclosure
WA016-139----	CULLENAGH	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-049----	CULLENCASTLE	Castle - tower house
WA026-012----	CULLENCASTLE	Enclosure
WA015-059001-	CUMMEEN	Moated site
WA015-059002-	CUMMEEN	House - indeterminate date
WA015-059003-	CUMMEEN	Hut site
WA015-006----	CUMMEEN	Ringfort - rath
WA015-008----	CUMMEEN	Enclosure
WA015-010----	CUMMEEN	Enclosure
WA015-009----	CUMMEEN	Ringfort - rath
WA015-007----	CUMMEEN	Enclosure
WA023-025----	CURRABAHA	Ringfort - rath
WA023-023----	CURRABAHA	Ringfort - unclassified
WA023-024----	CURRABAHA	Ringfort - rath
WA015-047----	CURRABAHA EAST	Castle - unclassified
WA034-015----	CURRADARRA	Ringfort - rath
WA034-016----	CURRADARRA	Ringfort - unclassified
WA035-007----	CURRADARRA	Ringfort - unclassified
WA035-007001-	CURRADARRA	Souterrain
WA038-046----	CURRAGH (Decies within Drum By.)	Cairn - unclassified
WA038-040001-	CURRAGH (Decies within Drum By.)	Ringfort - rath
WA038-040002-	CURRAGH (Decies within Drum By.)	Souterrain
WA038-039----	CURRAGH (Decies within Drum By.)	Ringfort - rath
WA038-036----	CURRAGH (Decies within Drum By.),DUFFCARRICK,BALLYNAMERTINAGH,MONEA	Road - road/trackway
WA007-030----	CURRAGHATAGGART	Enclosure
WA008-011----	CURRAGHATAGGART	Ringfort - rath
WA007-086----	CURRAGHATAGGART	Fulacht fia
WA007-046----	CURRAGHATAGGART	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA005-030----	CURRAGHATESKIN	Ringfort - rath
WA005-031----	CURRAGHATESKIN	Ringfort - rath
WA003-047----	CURRAGHDUFF (Upperthird By., Mothel Par.)	Ringfort - rath
WA006-060002-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Booley hut
WA006-060001-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Field boundary
WA006-053----	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Hut site
WA006-052----	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Standing stone
WA006-034002-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Booley hut
WA006-034004-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Field system
WA006-034001-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Hut site
WA006-034003-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Booley hut
WA006-060003-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Cairn - unclassified
WA006-034006-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Cairn - unclassified
WA006-034005-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Hut site
WA006-060004-	CURRAGHDUFF (Upperthird By., Rathgormuck Par.)	Hut site
WA002-036----	CURRAGHKIELY	Ringfort - rath
WA002-034----	CURRAGHKIELY	Ringfort - rath
WA002-038----	CURRAGHKIELY	Ringfort - rath
WA002-035----	CURRAGHKIELY	Ringfort - rath
WA002-064----	CURRAGHKIELY	House - 17th century
WA002-015----	CURRAGHKIELY	Ringfort - rath
WA002-014----	CURRAGHKIELY	Ringfort - rath
WA008-002002-	CURRAGHMORE	Graveyard
WA008-002001-	CURRAGHMORE	Church
WA008-020001-	CURRAGHMORE	House - 17th century
WA008-020002-	CURRAGHMORE	House - 17th century
WA008-047----	CURRAGHMORE	Stone sculpture - iconic
WA008-005003-	CURRAGHMORE	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA008-001----	CURRAGHMORE	Enclosure
WA008-005001-	CURRAGHMORE	Castle - tower house
WA008-003----	CURRAGHMORE	Ringfort - rath
WA008-007----	CURRAGHMORE	Bridge
WA008-046----	CURRAGHMORE	Enclosure
WA008-055----	CURRAGHMORE	Designed landscape - tree-ring
WA008-057----	CURRAGHMORE	Designed landscape - tree-ring
WA008-002003-	CURRAGHMORE	Wall monument (present location)
WA007-095----	CURRAGHMORE	Designed landscape - tree-ring
WA003-034001-	CURRAGHNAGARRAHA	Church
WA003-034004-	CURRAGHNAGARRAHA	Ogham stone
WA003-029----	CURRAGHNAGARRAHA	Ringfort - rath
WA003-034002-	CURRAGHNAGARRAHA	Graveyard
WA003-094----	CURRAGHNAGARRAHA	Fulacht fia
WA003-034005-	CURRAGHNAGARRAHA	Headstone
WA003-094001-	CURRAGHNAGARRAHA	Fulacht fia
WA022-034----	CURRAGHNAMADDREE	Enclosure
WA022-035----	CURRAGHNAMADDREE	Enclosure
WA007-072----	CURRAGHPHILIPEEN	House - 17th century
WA028-010----	CURRAGHREIGH NORTH	Ritual site - holy well
WA029-025----	CURRAGHROCHE	Ringfort - unclassified
WA029-055----	CURRAGHROCHE	House - 17th century
WA029-023003-	CURRAGHROCHE	Bullaun stone
WA029-023001-	CURRAGHROCHE	Ritual site - holy well
WA029-023002-	CURRAGHROCHE	Architectural fragment
WA029-031----	CURRAGRAIG	Enclosure
WA029-072----	CURRAGRAIG,KILLAHALY EAST	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-042001-	CURRAHEEN (Decies without Drum By., Kilrossanty Par.)	Enclosure
WA023-042----	CURRAHEEN (Decies without Drum By., Kilrossanty Par.)	Church
WA006-061----	CURRAHEEN (Upperthird By.)	Standing stone
WA006-002----	CURRAHEEN (Upperthird By.)	Earthwork
WA006-003----	CURRAHEEN (Upperthird By.)	Ringfort - rath
WA006-001----	CURRAHEEN (Upperthird By.)	Enclosure
WA028-032----	CURRAHEEN SOUTH	Settlement cluster
WA005-005----	CURRAHEENAVOHER	Enclosure
WA023-004----	CURRAUN	Cairn - unclassified
WA023-079----	CURRAUN	Standing stone
WA023-080----	CURRAUN	Standing stone
WA023-060----	CURRAUN,CUTTEEN SOUTH	Cairn - boundary cairn
WA005-020----	CURTISWOOD	House - 17th century
WA005-063----	CURTISWOOD	House - 17th century
WA038-014001-	CUSH OF GRANGE	Ringfort - rath
WA038-014002-	CUSH OF GRANGE	Souterrain
WA038-066----	CUSH OF GRANGE,DRUMGULLANE EAST,AUGHNACURRAVEEL	Road - road/trackway
WA014-040----	CUTTEEN NORTH	Field system
WA014-040002-	CUTTEEN NORTH	Fulacht fia
WA014-040001-	CUTTEEN NORTH	Enclosure
WA014-040004-	CUTTEEN NORTH	Fulacht fia
WA014-040005-	CUTTEEN NORTH	Fulacht fia
WA014-012----	CUTTEEN NORTH	Ringfort - rath
WA014-013----	CUTTEEN NORTH	Enclosure
WA014-040003-	CUTTEEN NORTH	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA014-051----	CUTTEEN NORTH	Hut site
WA014-052----	CUTTEEN NORTH	Cairn - unclassified
WA014-035002-	CUTTEEN NORTH	Fulacht fia
WA014-011005-	CUTTEEN SOUTH	Cist
WA014-021----	CUTTEEN SOUTH	Ringfort - rath
WA014-025----	CUTTEEN SOUTH	Enclosure
WA014-022----	CUTTEEN SOUTH	Enclosure
WA014-048----	CUTTEEN SOUTH	Cairn - unclassified
WA014-011003-	CUTTEEN SOUTH,COUMARAGLINMOUNTAIN	Standing stone
WA008-026----	DARRIGAL	Church
WA008-029----	DARRIGAL	Weir - fish
WA008-027----	DARRIGAL	Settlement cluster
WA008-028----	DARRIGAL	Burnt mound
WA023-029----	DEELISHMOUNTAIN	Cairn - unclassified
WA005-015----	DEERPARK (Glenahiry By.)	Ringfort - rath
WA029-002----	DEERPARK EAST	Ringfort - rath
WA029-004----	DEERPARK EAST	Ringfort - rath
WA029-002001-	DEERPARK EAST	Souterrain
WA029-075----	DEERPARK EAST,DEERPARK NORTH,DEERPARKHILL	Deer park
WA021-042----	DEERPARK NORTH	Ritual site - holy well
WA021-043----	DEERPARK NORTH	Fulacht fia
WA021-023----	DEERPARK NORTH	Mound
WA021-024----	DEERPARK NORTH	Ringfort - rath
WA029-003----	DEERPARK NORTH	Ringfort - unclassified
WA021-048----	DEERPARK NORTH	Road - road/trackway
WA029-006----	DEERPARKHILL	Mine
WA029-019001-	DEERPARKHILL	Enclosure
WA029-019002-	DEERPARKHILL	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA029-005----	DEERPARKHILL,DEERPARK EAST	Road - road/trackway
WA002-054002-	DERRINLAUR LOWER	House - 17th century
WA002-054001-	DERRINLAUR LOWER	House - 17th century
WA002-003002-	DERRINLAUR LOWER	House - 17th century
WA002-003001-	DERRINLAUR LOWER	Castle - tower house
WA022-012001-	DERRY UPPER	Church
WA022-012002-	DERRY UPPER	Graveyard
WA037-038----	D'LOUGHTANE	Church
WA037-039----	D'LOUGHTANE	Weir - fish
WA037-015----	D'LOUGHTANE	House - 18th/19th century
WA037-016----	D'LOUGHTANE	Ringfort - unclassified
WA037-017----	D'LOUGHTANE	Ringfort - unclassified
WA013-009----	DOON	Ringfort - unclassified
WA013-008----	DOON	Standing stone
WA017-116----	DOONEEN (Middlethird By., Kilmeadan Par.)	Ringfort - rath
WA017-066----	DOONEEN (Middlethird By., Lisnakill Par.),MOUNTCONGREVE (Middlethird By., Lisnakill Par.)	Mill - unclassified
WA029-021003-	DROMANA (Decies without Drum By.)	Bawn
WA029-022----	DROMANA (Decies without Drum By.)	Well
WA029-021001-	DROMANA (Decies without Drum By.)	Castle - tower house
WA029-021002-	DROMANA (Decies without Drum By.)	House - 17th century
WA029-053001-	DROMANA (Decies without Drum By.)	Weir - fish
WA029-053002-	DROMANA (Decies without Drum By.)	Weir - fish
WA018-077----	DROMINA	Enclosure
WA018-078----	DROMINA	Enclosure
WA018-070----	DROMINA	Enclosure
WA018-047----	DROMINA	Burial

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA018-027----	DROMINA,RAHEEN (Gaultiere By.)	Mound
WA029-042003-	DROMORE	Ogham stone
WA029-042010-	DROMORE	Ogham stone
WA029-042004-	DROMORE	Enclosure
WA029-042007-	DROMORE	Enclosure
WA029-042008-	DROMORE	Excavation - miscellaneous
WA029-042002-	DROMORE	Burial ground
WA029-042011-	DROMORE	Ogham stone
WA029-042006-	DROMORE	Ogham stone
WA026-017001-	DRUMCANNON	Church
WA026-017002-	DRUMCANNON	Graveyard
WA026-051----	DRUMCANNON	Cairn - unclassified
WA017-101----	DRUMCANNON,QUILLIA	House - 17th century
WA013-002----	DRUMGOREY	Ringfort - rath
WA038-013----	DRUMGULLANE EAST	Ringfort - unclassified
WA038-012----	DRUMGULLANE EAST	Ringfort - rath
WA038-051----	DRUMGULLANE EAST,DRUMGULLANE WEST	Standing stone - pair
WA038-069----	DRUMGULLANE WEST	Standing stone
WA024-033001-	DRUMLOHAN	Church
WA024-033003-	DRUMLOHAN	Ecclesiastical enclosure
WA024-033004-	DRUMLOHAN	Souterrain
WA024-033010-	DRUMLOHAN	Ogham stone
WA024-033012-	DRUMLOHAN	Ogham stone
WA024-033013-	DRUMLOHAN	Ogham stone
WA024-033019-	DRUMLOHAN	Cairn - unclassified
WA024-033020-	DRUMLOHAN	Field boundary
WA024-033006-	DRUMLOHAN	Ogham stone
WA024-033007-	DRUMLOHAN	Ogham stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA024-033008-	DRUMLOHAN	Ogham stone
WA024-033009-	DRUMLOHAN	Ogham stone
WA024-033017-	DRUMLOHAN	Ogham stone
WA024-033014-	DRUMLOHAN	Ogham stone
WA024-033015-	DRUMLOHAN	Ogham stone
WA024-033005-	DRUMLOHAN	Bullaun stone
WA024-033011-	DRUMLOHAN	Ogham stone
WA024-111002-	DRUMLOHAN	Souterrain
WA024-111001-	DRUMLOHAN	Ringfort - rath
WA024-033002-	DRUMLOHAN	Graveyard
WA024-124----	DRUMLOHAN	Ringfort - rath
WA021-025002-	DRUMROE UPPER	Graveyard
WA021-025003-	DRUMROE UPPER	Children's burial ground
WA021-025001-	DRUMROE UPPER	Church
WA021-027----	DRUMROE UPPER	Ringfort - unclassified
WA018-072----	DRUMRUSK	Enclosure
WA035-009----	DRUMSLIG,LYRE (Decies within Drum By.)	Mine
WA017-012001-	DUAGH	Bastioned fort
WA017-038----	DUAGH	Ringfort - unclassified
WA017-089----	DUAGH	House - 17th century
WA017-090----	DUAGH	Road - road/trackway
WA040-009002-	DUFFCARRICK	Hut site
WA040-008020-	DUFFCARRICK	Font (present location)
WA040-019001-	DUFFCARRICK	Ritual site - holy well
WA040-019002-	DUFFCARRICK	Ritual site - holy well
WA040-019003-	DUFFCARRICK	Ritual site - holy well
WA040-009001-	DUFFCARRICK	Crannog
WA040-010----	DUFFCARRICK	Ritual site - holy/saint's stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-069005-	DUNABRATTIN	Hut site
WA025-102----	DUNABRATTIN	Rock scribing - folk art
WA025-069006-	DUNABRATTIN	Hut site
WA025-069001-	DUNABRATTIN	Promontory fort - coastal
WA025-069002-	DUNABRATTIN	Promontory fort - coastal
WA025-069003-	DUNABRATTIN	Enclosure
WA025-068----	DUNABRATTIN	Enclosure
WA025-069004-	DUNABRATTIN	Hut site
WA025-069009-	DUNABRATTIN	Enclosure
WA031-040003-	DUNGARVAN	House - medieval
WA031-040013-	DUNGARVAN	Memorial stone
WA031-040004-	DUNGARVAN	Church
WA031-040009-	DUNGARVAN	Market-house
WA031-040001-	DUNGARVAN	Castle - Anglo-Norman masonry castle
WA031-040002-	DUNGARVAN	House - medieval
WA031-040010-	DUNGARVAN	Town defences
WA031-040014-	DUNGARVAN	Souterrain
WA031-040017-	DUNGARVAN	Building
WA031-040018-	DUNGARVAN	Building
WA031-040023-	DUNGARVAN	Burnt mound
WA031-040026-	DUNGARVAN	Excavation - miscellaneous
WA031-040007-	DUNGARVAN	Graveslab
WA031-040016-	DUNGARVAN	Building
WA031-040021-	DUNGARVAN	Building
WA031-040025-	DUNGARVAN	Structure
WA031-040019-	DUNGARVAN	Excavation - miscellaneous
WA031-040024-	DUNGARVAN	Excavation - miscellaneous
WA031-040028-	DUNGARVAN	Architectural fragment

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-040033-	DUNGARVAN	Graveyard
WA025-044003-	DUNHILL	Font
WA025-044004-	DUNHILL	Architectural fragment
WA025-045001-	DUNHILL	Castle - tower house
WA025-044001-	DUNHILL	Church
WA025-044002-	DUNHILL	Graveyard
WA025-026----	DUNHILL	Ringfort - unclassified
WA025-028----	DUNHILL	Earthwork
WA025-029----	DUNHILL	Megalithic tomb - portal tomb
WA025-116----	DUNHILL	Font (present location)
WA025-111----	DUNHILL	Cist
WA025-027----	DUNHILL	Ringfort - unclassified
WA025-045002-	DUNHILL	Bawn
WA025-046----	DUNHILL,DUNHILL LODGE	Bridge
WA033-019----	DUNMOON	House - 17th century
WA034-085----	DUNMOON NORTH	Enclosure
WA033-034----	DUNMOON SOUTH,DUNMOON NORTH	Standing stone
WA027-023002-	DUNMORE	Graveyard
WA027-034----	DUNMORE	Castle - Anglo-Norman masonry castle
WA027-035001-	DUNMORE	Promontory fort - coastal
WA027-023001-	DUNMORE	Church
WA027-035002-	DUNMORE	Hut site
WA027-035003-	DUNMORE	Enclosure
WA024-045----	DURROW	Boundary stone
WA012-008----	DYRICK LOWER	Cairn - unclassified
WA012-002----	DYRICK UPPER	Boundary stone
WA040-011001-	DYSERT	Church
WA040-011003-	DYSERT	Cross

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA040-011005-	DYSERT	Cross
WA040-016----	DYSERT	Mine
WA040-011002-	DYSERT	Ritual site - holy well
WA040-011004-	DYSERT	Cross
WA040-015001-	DYSERT	Castle - unclassified
WA040-024----	DYSERT	Signal tower
WA040-011006-	DYSERT	Cross
WA040-026----	DYSERT	Excavation - miscellaneous
WA040-029----	DYSERT	Promontory fort - coastal
WA023-078----	ENGLISHTOWN	Bullaun stone (present location)
WA023-047002-	ENGLISHTOWN	Bullaun stone
WA023-033001-	ENGLISHTOWN	Ringfort - rath
WA023-033002-	ENGLISHTOWN	Souterrain
WA031-049----	ENGLISHTOWN	Church
WA021-013----	FADDUAGA	Ringfort - rath
WA024-017----	FAHAFEELAGH	Ringfort - rath
WA024-016----	FAHAFEELAGH	Ringfort - rath
WA031-071----	FAIRLANE (Decies without Drum By., Dungarvan Par.)	Ritual site - holy well
WA010-013005-	FAITHLEGG	Weir - fish
WA010-013006-	FAITHLEGG	Weir - fish
WA010-013007-	FAITHLEGG	Weir - fish
WA010-013003-	FAITHLEGG	Weir - fish
WA010-014----	FAITHLEGG	Ritual site - holy well
WA010-010----	FAITHLEGG	Mill - unclassified
WA010-013001-	FAITHLEGG	Weir - fish
WA010-013004-	FAITHLEGG	Weir - fish
WA010-013008-	FAITHLEGG	Weir - fish
WA010-002----	FAITHLEGG	Ritual site - holy well

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA010-013002-	FAITHLEGG	Weir - fish
WA007-043----	FALLAGH	Ringfort - rath
WA007-091----	FALLAGH	Standing stone
WA022-014003-	FARNANE LOWER	Road - road/trackway
WA022-014004-	FARNANE LOWER	Bullaun stone
WA022-014002-	FARNANE LOWER	Graveyard
WA022-014005-	FARNANE LOWER	Children's burial ground
WA022-014006-	FARNANE LOWER	Ritual site - holy well
WA022-014001-	FARNANE LOWER	Church
WA022-013----	FARNANE UPPER	Ringfort - unclassified
WA025-108----	FARRANALAHESERY	Settlement cluster
WA025-074----	FARRANALAHESERY	Memorial stone
WA040-013----	FARRANGARRET	Cross
WA040-008023-	FARRANGARRET	Ecclesiastical enclosure
WA040-008021-	FARRANGARRET	Building
WA040-025001-	FARRANGARRET	Enclosure
WA040-025002-	FARRANGARRET	Mound
WA003-080----	FEDDANS	Cairn - unclassified
WA007-006001-	FEDDANS	Castle - motte and bailey
WA007-007----	FEDDANS	Castle - tower house
WA026-022----	FENNOR NORTH	Ringfort - unclassified
WA026-021----	FENNOR NORTH	Earthwork
WA026-031----	FENNOR SOUTH	Ringfort - rath
WA020-010001-	FLOWERHILL	Enclosure
WA020-010----	FLOWERHILL	Burial ground
WA027-012----	FORNAGHT	Habitation site
WA027-080001-	FORNAGHT	Enclosure
WA027-080002-	FORNAGHT	Field system

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA029-038001-	FOUNTAIN	Church
WA029-038002-	FOUNTAIN	Graveyard
WA029-036----	FOUNTAIN	Earthwork
WA029-039----	FOUNTAIN	Ringfort - rath
WA024-031----	FOX'S CASTLE	Ringfort - rath
WA024-042----	FOX'S CASTLE	Water mill - horizontal-wheeled
WA024-098----	FOX'S CASTLE	Road - road/trackway
WA024-043----	FOX'S CASTLE	Castle - unclassified
WA024-046----	FOX'S CASTLE	Ringfort - rath
WA024-080001-	FOX'S CASTLE	Souterrain
WA024-080002-	FOX'S CASTLE	Ogham stone
WA015-036----	FURRALEIGH	Castle - unclassified
WA031-067----	GALLOWSHILL (Decies without Drum By., Kilrush Par.)	Castle - motte
WA025-003----	GARDENMORRIS	House - 17th century
WA025-109----	GARDENMORRIS	Church
WA025-003001-	GARDENMORRIS	Armorial plaque (present location)
WA024-004----	GARRAHYLISH	Ringfort - rath
WA024-005----	GARRAHYLISH	Ringfort - rath
WA031-016001-	GARRANBAUN	Burnt mound
WA031-016002-	GARRANBAUN	Burnt mound
WA031-020----	GARRANBAUN	Ringfort - unclassified
WA031-035----	GARRANBAUN	Ringfort - rath
WA031-015----	GARRANBAUN,KILLINEEN WEST	Earthwork
WA024-003----	GARRANMILLON LOWER	Ringfort - rath
WA024-006001-	GARRANMILLON LOWER	Ecclesiastical enclosure
WA024-006002-	GARRANMILLON LOWER	Church
WA024-006003-	GARRANMILLON LOWER	Ogham stone
WA024-006004-	GARRANMILLON LOWER	Ogham stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA024-002001-	GARRANMILLON UPPER	Ringfort - rath
WA024-102----	GARRANMILLON UPPER	Standing stone
WA024-002002-	GARRANMILLON UPPER	Bullaun stone
WA024-125----	GARRANMILLON UPPER	Enclosure
WA024-020----	GARRANTURTON	Ringfort - unclassified
WA024-018----	GARRANTURTON	Designed landscape - tree-ring
WA024-019----	GARRANTURTON	Designed landscape - tree-ring
WA024-035----	GARRANTURTON	Enclosure
WA024-034----	GARRANTURTON	Ringfort - unclassified
WA024-036----	GARRANTURTON	Ringfort - rath
WA024-107----	GARRANTURTON	Standing stone
WA024-108----	GARRANTURTON	Standing stone
WA024-113----	GARRANTURTON	Standing stone
WA024-073001-	GARRANTURTON	Enclosure
WA024-073006-	GARRANTURTON	Bullaun stone
WA024-072----	GARRANTURTON	Settlement cluster
WA024-073003-	GARRANTURTON	Standing stone
WA024-073002-	GARRANTURTON	Standing stone
WA026-065----	GARRARUS	Enclosure
WA026-038----	GARRARUS	Promontory fort - coastal
WA026-088----	GARRARUS	Promontory fort - coastal
WA026-089----	GARRARUS	Promontory fort - coastal
WA030-026----	GARRAUNFADDA	Ringfort - unclassified
WA003-100----	GARRAVOONE	Souterrain
WA020-008002-	GARRISON	Burial ground
WA020-008001-	GARRISON	Enclosure
WA028-009----	GARRYBRITTAS	Enclosure
WA037-019001-	GARRYDUFF (Coshmore and Coshbride By.)	Mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA037-019002-	GARRYDUFF (Coshmore and Coshbride By.)	Castle - unclassified
WA022-030----	GARRYDUFF (Decies without Drum By.)	Burnt mound
WA022-031----	GARRYDUFF (Decies without Drum By.)	Burnt mound
WA022-032----	GARRYDUFF (Decies without Drum By.)	Burnt mound
WA022-033----	GARRYDUFF (Decies without Drum By.)	Enclosure
WA022-043----	GARRYDUFF (Decies without Drum By.)	Ringfort - unclassified
WA031-033----	GARRYNAGERAGH EAST	Enclosure
WA031-032----	GARRYNAGERAGH EAST	Ringfort - unclassified
WA031-034----	GARRYNAGERAGH EAST	Fulacht fia
WA017-026----	GAULSTOWN	Cist
WA017-028----	GAULSTOWN	Ringfort - rath
WA017-025----	GAULSTOWN	Concentric enclosure
WA017-027----	GAULSTOWN	Megalithic tomb - portal tomb
WA009-015----	GIBBETHILL	Standing stone
WA009-037----	GIBBETHILL	Excavation - miscellaneous
WA009-013----	GIBBETHILL,GRACEDIEU WEST	Castle - unclassified
WA005-007----	GLASHA	Enclosure
WA031-043001-	GLEBE (Decies without Drum By.)	Church
WA031-043003-	GLEBE (Decies without Drum By.)	Sarcophagus
WA001-024002-	GLEBE (Glenahiry By.)	Graveyard
WA001-024003-	GLEBE (Glenahiry By.)	Ritual site - holy well
WA001-024001-	GLEBE (Glenahiry By.)	Church
WA032-018002-	GLEN	Graveyard
WA032-018001-	GLEN	Church
WA020-017----	GLEN BEG (Decies without Drum By.)	Enclosure
WA020-027----	GLEN BEG (Decies without Drum By.)	Enclosure
WA020-012----	GLEN BEG (Decies without Drum By.)	House - 17th century
WA035-015----	GLEN BEG (Decies without Drum By.)	Cross-inscribed stone (present location)

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA002-056----	GLEN LOWER (Upperthird By.)	House - 17th century
WA002-007002-	GLEN LOWER (Upperthird By.)	Inscribed stone
WA002-007001-	GLEN LOWER (Upperthird By.)	Castle - tower house
WA022-041----	GLEN UPPER (Decies without Drum By.)	Enclosure
WA002-009----	GLEN UPPER (Upperthird By.)	Ringfort - unclassified
WA002-006----	GLEN UPPER (Upperthird By.)	Ringfort - rath
WA038-009----	GLEN WILLIAM	Enclosure
WA038-062----	GLEN WILLIAM	Standing stone
WA001-037----	GLENABBEY	House - 18th/19th century
WA028-043----	GLENABOY	House - 17th century
WA001-044----	GLENARY	Cairn - unclassified
WA001-045----	GLENARY	Fulacht fia
WA022-054----	GLENAVADDRA	Kiln - corn-drying
WA020-020----	GLENCAIRN	Ringfort - unclassified
WA020-014----	GLENCAIRN	Castle - unclassified
WA020-019----	GLENCAIRN	Enclosure
WA023-016----	GLENDALLIGAN	Ringfort - rath
WA023-069----	GLENDALLIGAN	Standing stone
WA023-062----	GLENDALLIGAN,DEELISHMOUNTAIN	Cairn - boundary cairn
WA001-042----	GLENDALOUGH	Cairn - unclassified
WA002-028----	GLENDALOUGH	Cairn - unclassified
WA006-039----	GLENDALOUGH	Standing stone
WA005-047----	GLENDALOUGH	Burnt mound
WA005-059----	GLENDALOUGH	Turf stand
WA034-079----	GLENGOAGH	House - 17th century
WA020-015----	GLENMORRISHMEEN	Castle - unclassified
WA012-003002-	GLENNAFALLIA	Cist
WA012-003001-	GLENNAFALLIA	Cairn - radial-stone cairn

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA033-035----	GLENNAGLOGH	Burial ground
WA033-011----	GLENNAGLOGH	Linear earthwork
WA033-016----	GLENNAGLOGH,KILCALFMOUNTAIN	Ford
WA006-016----	GLENNANORE	Enclosure
WA007-029----	GLENNAPHUCA	Ringfort - unclassified
WA007-028----	GLENNAPHUCA	Ringfort - unclassified
WA007-083----	GLENNAPHUCA	Standing stone
WA002-031002-	GLENPATRICK	House - indeterminate date
WA002-032001-	GLENPATRICK	Church
WA002-075----	GLENPATRICK	House - indeterminate date
WA002-031001-	GLENPATRICK	Ringfort - rath
WA002-080----	GLENPATRICK	Cairn - unclassified
WA002-082----	GLENPATRICK	House - indeterminate date
WA002-030----	GLENPATRICK	Ringfort - rath
WA002-032002-	GLENPATRICK	Burial ground
WA002-062----	GLENPATRICK	House - 17th century
WA002-029----	GLENPATRICK	Ringfort - rath
WA002-011----	GLENPATRICK	Enclosure
WA021-006----	GLENTAUN EAST	Earthwork
WA011-009----	GLENTAUNATINAGH	Pill-box
WA011-007----	GLENTAUNATINAGH,KNOCKAUNABULLOGA,KNOCKNALOUGHA,GLENTAUNEMON,KNOCKAUNARAST,MONARD,MONATAGGART,KNOCKACOMORTISH,KNOCKADAV,KNOCKANNANAGH,KNOCKAVEELISH,KNOCKMEALDOWN,KNOCKNAFALLIA,BALLYIN UPPER,BARRANAMANOGE,BOGGAGHBAUN,DYRICK LOWER,DYRICK UPPER,MONATARRIV WEST,SHANAVOOLA,FEAGARRID,GLENAVEHA,GLENDEISH WEST	Linear earthwork

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA011-008----	GLENTAUNEMON	Structure
WA038-070----	GLISTINANE	Bullaun stone
WA036-021----	GORT NA DUIMHCHE Á□OCHTARACH,GORT NA DUIMHCHE UACHTARACH	Settlement cluster
WA036-020----	GORT NA DUIMHCHE UACHTARACH,GORT NA DUIMHCHE Á□OCHTARACH	Church
WA008-035----	GORTACLADE	Bullaun stone
WA008-036----	GORTACLADE	Souterrain
WA008-037----	GORTACLADE	Cairn - unclassified
WA008-041----	GORTACLADE	Mill - unclassified
WA027-038----	GORTAHILLY	Ringfort - rath
WA023-044----	GORTAVICARY	Castle - unclassified
WA031-014----	GORTEEN (Decies without Drum By.)	Ritual site - holy well
WA031-014002-	GORTEEN (Decies without Drum By.)	Ritual site - holy tree/bush
WA031-014001-	GORTEEN (Decies without Drum By.)	Penitential station
WA014-027----	GORTNALAGHT	Ringfort - rath
WA023-009001-	GORTNALAGHT	Ringfort - rath
WA023-009002-	GORTNALAGHT	Bullaun stone
WA023-008----	GORTNALAGHT	Ringfort - rath
WA023-064----	GORTNALAGHT	Burnt mound
WA023-077----	GORTNALAGHT	Bullaun stone (present location)
WA035-013----	GOWLAUN	Enclosure
WA039-002----	GOWLAUN	Ringfort - unclassified
WA039-001----	GOWLAUN	Ringfort - rath
WA009-012----	GRACEDIEU EAST,GRACEDIEU WEST	Habitation site
WA009-033003-	GRACEDIEU WEST	Excavation - miscellaneous
WA009-033001-	GRACEDIEU WEST	Excavation - miscellaneous
WA009-033004-	GRACEDIEU WEST	Structure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-033002-	GRACEDIEU WEST	Excavation - miscellaneous
WA027-032----	GRAIGARIDDY	Enclosure
WA027-033----	GRAIGARIDDY	Enclosure
WA027-078----	GRAIGARIDDY	Enclosure
WA006-011----	GRAIGAVALLA	Ringfort - rath
WA006-014001-	GRAIGAVALLA	Cairnfield
WA006-014002-	GRAIGAVALLA	Cairn - ring-cairn
WA006-007----	GRAIGAVALLA	Enclosure
WA006-008----	GRAIGAVALLA	Ringfort - unclassified
WA006-014003-	GRAIGAVALLA	Booley hut
WA006-015001-	GRAIGAVALLA	Enclosure
WA006-015002-	GRAIGAVALLA	Ringfort - rath
WA006-049----	GRAIGAVALLA	Standing stone
WA006-041----	GRAIGAVALLA	Settlement cluster
WA006-048----	GRAIGAVALLA	Standing stone
WA006-007001-	GRAIGAVALLA	Standing stone
WA006-013----	GRAIGAVALLA	Ringfort - rath
WA006-012----	GRAIGAVALLA	Ringfort - unclassified
WA006-009----	GRAIGAVALLA	Enclosure
WA006-010----	GRAIGAVALLA	Enclosure
WA006-006----	GRAIGAVALLA	Ringfort - unclassified
WA006-071----	GRAIGAVALLA	Standing stone
WA005-025----	GRAIGNAGOWER	Ringfort - rath
WA005-024----	GRAIGNAGOWER	Ringfort - unclassified
WA005-026001-	GRAIGNAGOWER	Church
WA005-026002-	GRAIGNAGOWER	Graveyard
WA005-056----	GRAIGNAGOWER	Bullaun stone
WA005-055----	GRAIGNAGOWER	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA005-021004-	GRAIGNAGOWER	Cairn - clearance cairn
WA005-021001-	GRAIGNAGOWER	Field system
WA005-021002-	GRAIGNAGOWER	Enclosure
WA005-061----	GRAIGNAGOWER	Enclosure
WA005-060----	GRAIGNAGOWER	Enclosure
WA022-023----	GRAIGUE BEG	Ringfort - rath
WA015-117----	GRAIGUEARUSH	Burnt mound
WA015-118----	GRAIGUEARUSH	Burnt mound
WA015-116----	GRAIGUEARUSH	Burnt mound
WA015-115----	GRAIGUEARUSH	Burnt mound
WA015-119----	GRAIGUEARUSH	Burnt mound
WA015-049----	GRAIGUESHONEEN	Ringfort - unclassified
WA015-050----	GRAIGUESHONEEN	Ringfort - unclassified
WA015-107001-	GRAIGUESHONEEN	Pit-burial
WA015-048005-	GRAIGUESHONEEN	Hut site
WA015-107002-	GRAIGUESHONEEN	Fulacht fia
WA015-048007-	GRAIGUESHONEEN	Excavation - miscellaneous
WA015-089----	GRAIGUESHONEEN	Enclosure
WA015-086----	GRAIGUESHONEEN	Burnt mound
WA015-048004-	GRAIGUESHONEEN	Excavation - miscellaneous
WA015-093----	GRAIGUESHONEEN	Fulacht fia
WA015-094002-	GRAIGUESHONEEN	House - Bronze Age
WA015-094001-	GRAIGUESHONEEN	Habitation site
WA015-094003-	GRAIGUESHONEEN	Metalworking site
WA015-098----	GRAIGUESHONEEN	Hearth
WA015-111----	GRAIGUESHONEEN	Enclosure
WA015-121----	GRAIGUESHONEEN	Enclosure
WA015-074----	GRAIGUESHONEEN,KILMACTHOMAS	Courthouse

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA038-003----	GRALLAGH LOWER	Souterrain
WA038-004----	GRALLAGH LOWER	Ringfort - rath
WA038-060001-	GRALLAGH LOWER	Fulacht fia
WA038-060002-	GRALLAGH LOWER	Fulacht fia
WA038-003001-	GRALLAGH LOWER	Ringfort - rath
WA038-049----	GRALLAGH LOWER,GRALLAGH UPPER	Mine
WA038-005001-	GRALLAGH UPPER	Burial ground
WA038-006----	GRALLAGH UPPER	Ringfort - rath
WA038-068----	GRANGE	Enclosure - large enclosure
WA018-031001-	GRANTSTOWN	House - 17th century
WA018-031002-	GRANTSTOWN	House - 17th century
WA016-042001-	GREENAN (Decies without Drum By.)	Ringfort - unclassified
WA016-042002-	GREENAN (Decies without Drum By.)	Souterrain
WA016-043001-	GREENAN (Decies without Drum By.)	Ringfort - rath
WA016-018001-	GREENAN (Decies without Drum By.)	Enclosure
WA016-018002-	GREENAN (Decies without Drum By.)	Souterrain
WA016-043002-	GREENAN (Decies without Drum By.)	Souterrain
WA016-019----	GREENAN (Decies without Drum By.)	Ringfort - rath
WA016-117----	GREENAN (Decies without Drum By.)	Standing stone
WA016-134----	GREENAN (Decies without Drum By.)	Fulacht fia
WA001-012002-	GREENAN (Glenahiry By.)	Graveyard
WA001-010----	GREENAN (Glenahiry By.)	Enclosure
WA001-012001-	GREENAN (Glenahiry By.)	Church
WA001-011----	GREENAN (Glenahiry By.)	House - fortified house
WA001-047----	GREENAN (Glenahiry By.),KILMACOMMA	Weir - fish
WA022-058----	GREENANE	Enclosure
WA008-022001-	GUILCAGH	House - 17th century
WA008-022002-	GUILCAGH	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA008-059----	GUILCAGH	Enclosure
WA002-083----	GURTEEN LOWER	Standing stone
WA002-005----	GURTEEN LOWER	Megalithic tomb - portal tomb
WA002-008----	GURTEEN UPPER	Standing stone
WA039-018----	HACKETSTOWN (Decies within Drum By.)	Church
WA039-019----	HACKETSTOWN (Decies within Drum By.)	House - 17th century
WA039-011----	HACKETSTOWN (Decies within Drum By.)	Castle - unclassified
WA039-039----	HACKETSTOWN (Decies within Drum By.)	Promontory fort - coastal
WA008-032----	HACKETSTOWN (Middlethird By.)	House - 17th century
WA008-033----	HACKETSTOWN (Middlethird By.)	Castle - unclassified
WA027-007----	HARRISTOWN	Megalithic tomb - passage tomb
WA027-008----	HARRISTOWN	Ritual site - holy tree/bush
WA027-010----	HARRISTOWN	Settlement deserted - medieval
WA027-007002-	HARRISTOWN	Urn burial
WA027-007001-	HARRISTOWN	Pit-burial
WA027-007003-	HARRISTOWN	Cist
WA027-007004-	HARRISTOWN	Urn burial
WA027-007007-	HARRISTOWN	Cremated remains
WA027-007005-	HARRISTOWN	Urn burial
WA027-007006-	HARRISTOWN	Cremation pit
WA034-081----	HARROWHILL	House - 17th century
WA034-080----	HARROWHILL	House - 17th century
WA029-063----	HEADBOROUGH	House - 17th century
WA029-062----	HEADBOROUGH	House - 17th century
WA029-064----	HEADBOROUGH	Settlement cluster
WA034-001----	HEADBOROUGH	Designed landscape - tree-ring
WA034-002----	HEADBOROUGH	Ringfort - rath
WA029-041----	HEADBOROUGH	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA034-073----	HEADBOROUGH	Souterrain
WA034-074----	HEADBOROUGH	Ringfort - rath
WA036-029----	HEILBHIC	Promontory fort - coastal
WA028-046----	HUNTHILL	House - 17th century
WA030-061001-	INCHINDRISLA	Church
WA030-061003-	INCHINDRISLA	Ritual site - holy well
WA030-061002-	INCHINDRISLA	Cross
WA019-008----	INCHINLEAMA EAST,INCHINLEAMA WEST	Castle - unclassified
WA032-029001-	ISLAND	Ecclesiastical enclosure
WA032-009----	ISLAND	Ringfort - rath
WA032-029002-	ISLAND	Ogham stone
WA032-029004-	ISLAND	Cross-inscribed stone
WA032-028004-	ISLANDHUBBOCK	Inscribed stone
WA032-028002-	ISLANDHUBBOCK	Souterrain
WA032-028003-	ISLANDHUBBOCK	Hut site
WA032-028001-	ISLANDHUBBOCK	Promontory fort - coastal
WA032-047----	ISLANDHUBBOCK	Promontory fort - coastal
WA032-046----	ISLANDHUBBOCK	Promontory fort - coastal
WA026-071----	ISLANDIKANE EAST	Standing stone
WA026-090----	ISLANDIKANE EAST	Promontory fort - coastal
WA026-036003-	ISLANDIKANE EAST,ISLANDIKANE SOUTH	Hut site
WA026-036001-	ISLANDIKANE EAST,ISLANDIKANE SOUTH	Promontory fort - coastal
WA026-036002-	ISLANDIKANE EAST,ISLANDIKANE SOUTH	Hut site
WA026-062----	ISLANDIKANE NORTH	Building
WA026-075----	ISLANDIKANE NORTH	Standing stone
WA026-033001-	ISLANDIKANE SOUTH	Church
WA026-033002-	ISLANDIKANE SOUTH	Graveyard
WA026-034----	ISLANDIKANE SOUTH	Earthwork

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA026-057----	ISLANDTARSNEY NORTH,ISLANDTARSNEY SOUTH	Settlement cluster
WA026-032----	ISLANDTARSNEY SOUTH	Ringfort - rath
WA028-035001-	JANEVILLE	Kiln - lime
WA028-035002-	JANEVILLE	House - 17th century
WA028-038----	JANEVILLE	House - 17th century
WA028-035003-	JANEVILLE	House - 17th century
WA003-025001-	JOANSTOWN	Ringfort - unclassified
WA003-025002-	JOANSTOWN	Enclosure
WA003-068----	JOANSTOWN	Church
WA016-104001-	JOHNSTOWN	Burnt mound
WA016-105----	JOHNSTOWN	Burnt mound
WA016-107----	JOHNSTOWN	Burnt mound
WA016-106001-	JOHNSTOWN	Burnt mound
WA016-106002-	JOHNSTOWN	Burnt mound
WA016-104002-	JOHNSTOWN	Burnt mound
WA015-021----	KEALFOUN	Earthwork
WA015-079----	KEALFOUN	Standing stone
WA015-120----	KEALFOUN	Standing stone (present location)
WA030-063----	KEEREEN LOWER	Church
WA030-054----	KEEREEN UPPER	Ringfort - unclassified
WA018-066001-	KEILOGE	Enclosure
WA018-050----	KEILOGE	House - 17th century
WA018-066002-	KEILOGE	Enclosure
WA003-066----	KILBALLYQUILTY	House - 17th century
WA003-095----	KILBALLYQUILTY	Standing stone
WA017-003003-	KILBARRY	Building
WA017-003001-	KILBARRY	Religious house - Knights Hospitallers
WA017-003004-	KILBARRY	Building

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-003007-	KILBARRY	Architectural fragment
WA017-003002-	KILBARRY	Graveyard
WA017-004----	KILBARRY	Burnt mound
WA017-003005-	KILBARRY	Graveslab
WA017-003009-	KILBARRY	Building
WA017-003008-	KILBARRY	Road - hollow-way
WA017-140----	KILBARRY	Excavation - miscellaneous
WA017-003011-	KILBARRY	Building
WA017-003012-	KILBARRY	Flat cemetery
WA017-003010-	KILBARRY	Building
WA025-040001-	KILBARRYMEADEN	Church
WA025-047----	KILBARRYMEADEN	Burnt mound
WA025-041----	KILBARRYMEADEN	Ritual site - holy well
WA025-040003-	KILBARRYMEADEN	Field system
WA025-040005-	KILBARRYMEADEN	Graveslab
WA025-040004-	KILBARRYMEADEN	Bullaun stone
WA025-021----	KILBARRYMEADEN	Burnt mound
WA025-076----	KILBARRYMEADEN	Standing stone
WA025-075----	KILBARRYMEADEN	Standing stone
WA025-077001-	KILBARRYMEADEN	Mill - unclassified
WA025-077002-	KILBARRYMEADEN	House - 17th century
WA025-040002-	KILBARRYMEADEN	Graveyard
WA025-040006-	KILBARRYMEADEN	Road - hollow-way
WA025-041001-	KILBARRYMEADEN	Ritual site - holy tree/bush
WA031-036----	KILBEG (Decies without Drum By., Clonea Par.)	Well
WA025-078----	KILBEG (Decies without Drum By., Kilbarrymeadan Par.)	Ogham stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-079002-	KILBEG (Decies without Drum By., Kilbarrymeadan Par.)	House - 17th century
WA033-030----	KILBEG UPPER	House - 17th century
WA033-031----	KILBEG UPPER	House - 17th century
WA033-022----	KILBEG UPPER	House - 17th century
WA033-003----	KILBEG UPPER	Standing stone - pair
WA033-027----	KILBEG UPPER,KILBEG LOWER	House - 17th century
WA033-002----	KILBEG UPPER,KILCALF EAST	Boundary stone
WA002-043----	KILBRACK	Enclosure
WA002-047----	KILBRACK	Enclosure
WA002-048005-	KILBRACK	Bullaun stone
WA002-079----	KILBRACK	Burnt mound
WA002-048004-	KILBRACK	Bullaun stone
WA002-048002-	KILBRACK	Graveyard
WA002-048003-	KILBRACK	Ecclesiastical enclosure
WA002-048001-	KILBRACK	Church
WA002-049----	KILBRACK	Enclosure
WA003-044----	KILBRACK	Earthwork
WA007-001----	KILBRACK	Water mill - horizontal-wheeled
WA002-048006-	KILBRACK	Bullaun stone
WA002-048007-	KILBRACK	Bullaun stone
WA006-069----	KILBRACK	Standing stone
WA006-068----	KILBRACK	Standing stone
WA021-026002-	KILBREE EAST	Church
WA021-026001-	KILBREE EAST	House - 17th century
WA017-050001-	KILBRIDE NORTH	Church
WA017-050004-	KILBRIDE NORTH	Settlement deserted - medieval
WA017-050005-	KILBRIDE NORTH	Road - road/trackway

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-051----	KILBRIDE NORTH	House - 18th/19th century
WA017-050002-	KILBRIDE NORTH	Graveyard
WA017-053----	KILBRIDE NORTH	Ringfort - unclassified
WA017-050003-	KILBRIDE NORTH	Ritual site - holy well
WA017-052----	KILBRIDE NORTH	Ringfort - unclassified
WA017-117----	KILBRIDE NORTH	Enclosure
WA017-050006-	KILBRIDE NORTH	Ecclesiastical enclosure
WA017-050007-	KILBRIDE NORTH	Enclosure
WA017-104----	KILBRIDE NORTH,KILBRIDE SOUTH	Cist
WA026-011----	KILBRIDE SOUTH	Ringfort - unclassified
WA026-085----	KILBRIDE SOUTH	Standing stone
WA013-041001-	KILBRYAN LOWER	Burial ground
WA014-020----	KILBRYAN LOWER	Ringfort - rath
WA014-038001-	KILBRYAN UPPER	Fulacht fia
WA014-041----	KILBRYAN UPPER	Field system
WA014-041001-	KILBRYAN UPPER	Settlement cluster
WA014-041002-	KILBRYAN UPPER	Fulacht fia
WA014-032----	KILBRYAN UPPER	Fulacht fia
WA014-031----	KILBRYAN UPPER	Standing stone - pair
WA014-041012-	KILBRYAN UPPER	Enclosure
WA014-041013-	KILBRYAN UPPER	Cairn - clearance cairn
WA014-057----	KILBRYAN UPPER	Standing stone
WA014-038002-	KILBRYAN UPPER	Fulacht fia
WA014-041008-	KILBRYAN UPPER	House - indeterminate date
WA014-041009-	KILBRYAN UPPER	House - indeterminate date
WA014-041010-	KILBRYAN UPPER	House - indeterminate date
WA014-041011-	KILBRYAN UPPER	House - indeterminate date
WA014-041003-	KILBRYAN UPPER	House - indeterminate date

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA014-041005-	KILBRYAN UPPER	House - indeterminate date
WA014-041006-	KILBRYAN UPPER	House - indeterminate date
WA014-041007-	KILBRYAN UPPER	House - indeterminate date
WA014-041004-	KILBRYAN UPPER	House - indeterminate date
WA033-021----	KILCALF EAST	House - 17th century
WA033-026----	KILCALF WEST	House - 17th century
WA033-033----	KILCALF WEST	House - 17th century
WA033-020----	KILCALF WEST	House - 17th century
WA033-008----	KILCALFMOUNTAIN	Standing stone - pair
WA015-061001-	KILCANAVEE	Ecclesiastical enclosure
WA015-062----	KILCANAVEE	Architectural fragment
WA015-061----	KILCANAVEE	Church
WA007-077001-	KILCANAVEE	House - 17th century
WA007-077002-	KILCANAVEE	House - 17th century
WA007-087----	KILCANAVEE,KNOCKATURNORY	Cairn - unclassified
WA025-060----	KILCANNON	Ringfort - unclassified
WA025-061----	KILCANNON	Enclosure
WA025-097----	KILCANNON	Church
WA025-098----	KILCANNON	Settlement cluster
WA030-003002-	KILCANNON (Hely),KILCANNON (Osborne)	Ecclesiastical enclosure
WA030-003001-	KILCANNON (Osborne)	Church
WA030-003003-	KILCANNON (Osborne)	Graveyard
WA018-011002-	KILCARAGH	Graveyard
WA018-011001-	KILCARAGH	Church
WA018-041002-	KILCARAGH	House - 17th century
WA018-041001-	KILCARAGH	House - 17th century
WA026-005002-	KILCARTON	House - indeterminate date
WA026-046----	KILCARTON	Settlement cluster

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA026-047----	KILCARTON	Church
WA026-005001-	KILCARTON,REISK	Ringfort - rath
WA030-058002-	KILCLOHER	Enclosure
WA030-058001-	KILCLOHER	Church
WA006-046----	KILCLOONEY	Water mill - horizontal-wheeled
WA007-073----	KILCLOONEY	Church
WA007-033----	KILCLOONEY	Ringfort - rath
WA007-034----	KILCLOONEY	House - indeterminate date
WA007-036----	KILCLOONEY	Enclosure
WA007-032----	KILCLOONEY	Field boundary
WA007-085----	KILCLOONEY	Standing stone
WA007-081----	KILCLOONEY	Enclosure
WA014-039----	KILCLOONEY	Enclosure
WA014-049----	KILCLOONEY	Cairn - unclassified
WA015-002----	KILCLOONEY	Ringfort - rath
WA015-001----	KILCLOONEY	Ringfort - rath
WA015-003----	KILCLOONEY	Ringfort - unclassified
WA007-031001-	KILCLOONEY	Field boundary
WA014-064----	KILCLOONEY	Hut site
WA014-063----	KILCLOONEY	Hut site
WA034-018----	KILCOCKAN	Ringfort - rath
WA034-019001-	KILCOCKAN	Church
WA034-019004-	KILCOCKAN	Graveyard
WA034-054----	KILCOCKAN	House - 17th century
WA017-071----	KILCOHAN	House - 17th century
WA017-080----	KILCOHAN	Church
WA017-142----	KILCOHAN	Hearth
WA038-020004-	KILCOLMAN	Graveyard

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA038-020003-	KILCOLMAN	Ritual site - holy well
WA038-019----	KILCOLMAN	Enclosure
WA038-020001-	KILCOLMAN	Enclosure
WA038-020002-	KILCOLMAN	Church
WA038-020005-	KILCOLMAN	Ritual site - holy tree/bush
WA015-044002-	KILCOMERAGH	Souterrain
WA015-044001-	KILCOMERAGH	Children's burial ground
WA015-042----	KILCOMERAGH	Ogham stone (present location)
WA015-043----	KILCOMERAGH	Castle - unclassified
WA013-028002-	KILCOONEY	Graveyard
WA013-030----	KILCOONEY	Enclosure
WA013-028001-	KILCOONEY	Church
WA013-029----	KILCOONEY	Ringfort - rath
WA022-008----	KILCOONEY	Ringfort - rath
WA018-044002-	KILCOP LOWER,KILCOP UPPER	House - 17th century
WA018-044001-	KILCOP LOWER,KILCOP UPPER	House - 17th century
WA018-025001-	KILCOP UPPER	Church
WA018-025002-	KILCOP UPPER	Enclosure
WA018-025003-	KILCOP UPPER	Graveyard
WA005-010----	KILCREGGANE	Ringfort - unclassified
WA005-011001-	KILCREGGANE	Burial ground
WA005-011002-	KILCREGGANE	Cross
WA010-019----	KILCULLEN LOWER,KILCULLEN UPPER	Church
WA016-068003-	KILDERMODY	Bullaun stone
WA016-068001-	KILDERMODY	Ecclesiastical enclosure
WA016-068002-	KILDERMODY	Church
WA016-068004-	KILDERMODY	Bullaun stone
WA003-057----	KILDROUGHTAUN	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-100----	KILDUANE	Church
WA025-073----	KILFARRASY	Promontory fort - coastal
WA025-104----	KILFARRASY	Church
WA025-106----	KILFARRASY	Mill - unclassified
WA025-105----	KILFARRASY	Fulacht fia
WA037-040----	KILGABRIEL	House - 17th century
WA038-001----	KILGABRIEL	Church
WA001-031----	KILGAINY LOWER	Weir - fish
WA001-032003-	KILGAINY LOWER,KILGAINY UPPER	House - 17th century
WA001-032001-	KILGAINY LOWER,KILGAINY UPPER	House - 17th century
WA001-033----	KILGAINY UPPER	Church
WA001-014----	KILGAINY UPPER	Castle - tower house
WA001-032002-	KILGAINY UPPER,KILGAINY LOWER	House - 17th century
WA031-001001-	KILGOBNET	Church
WA031-001003-	KILGOBNET	Ritual site - holy well
WA031-001002-	KILGOBNET	Graveyard
WA031-001004-	KILGOBNET	Font
WA030-062----	KILGREANY (Decies without Drum By.)	Church
WA030-018----	KILGREANY (Decies without Drum By.)	Cave
WA030-018001-	KILGREANY (Decies without Drum By.)	Burial
WA031-045001-	KILGROVAN	Ecclesiastical enclosure
WA031-045----	KILGROVAN	Church
WA031-045002-	KILGROVAN	Ogham stone
WA031-045004-	KILGROVAN	Ogham stone
WA031-045003-	KILGROVAN	Ogham stone
WA031-045005-	KILGROVAN	Ogham stone
WA031-045009-	KILGROVAN	Children's burial ground
WA031-045008-	KILGROVAN	Ogham stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-045006-	KILGROVAN	Ogham stone
WA031-045010-	KILGROVAN	Kiln
WA031-045011-	KILGROVAN	Kiln
WA031-045012-	KILGROVAN	Kiln
WA031-045013-	KILGROVAN	Kiln
WA031-045014-	KILGROVAN	Kiln
WA031-045015-	KILGROVAN	Ogham stone
WA005-028----	KILKEANY	Enclosure
WA005-040001-	KILKEANY	Enclosure
WA005-040002-	KILKEANY	Graveyard
WA005-040003-	KILKEANY	Church
WA038-018002-	KILKNOCKAN	Church
WA038-018001-	KILKNOCKAN	Enclosure
WA017-082----	KILL ST. LAWRENCE	Ritual site - holy well
WA017-005003-	KILL ST. LAWRENCE	Headstone
WA017-108----	KILL ST. LAWRENCE	Standing stone
WA017-005001-	KILL ST. LAWRENCE	Church
WA017-005004-	KILL ST. LAWRENCE	Ecclesiastical enclosure
WA017-005002-	KILL ST. LAWRENCE	Graveyard
WA017-005005-	KILL ST. LAWRENCE	Hut site
WA017-005006-	KILL ST. LAWRENCE	Hut site
WA018-037001-	KILL ST. NICHOLAS	House - 17th century
WA018-007005-	KILL ST. NICHOLAS	Burnt mound
WA018-007003-	KILL ST. NICHOLAS	Ritual site - holy well
WA018-007004-	KILL ST. NICHOLAS	Bullaun stone
WA018-007001-	KILL ST. NICHOLAS	Church
WA018-007002-	KILL ST. NICHOLAS	Graveyard
WA018-037002-	KILL ST. NICHOLAS	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA018-080----	KILL ST. NICHOLAS	Enclosure
WA031-025----	KILLADANGAN	Ringfort - unclassified
WA030-029002-	KILLADANGAN	Enclosure
WA030-029001-	KILLADANGAN	Burial ground
WA029-071----	KILLAHALY EAST	Linear earthwork
WA029-019003-	KILLAHALY WEST	Enclosure
WA029-037----	KILLANTHONY	Church
WA035-001----	KILLATOOR	Ringfort - rath
WA027-056001-	KILLAWLAN	Mill - unclassified
WA027-055----	KILLAWLAN	Dovecote
WA037-051----	KILLEA (Coshmore and Coshbride By.)	Burnt mound
WA037-043----	KILLEA (Coshmore and Coshbride By.)	Church
WA022-027----	KILLEAGH	Burial ground
WA034-041002-	KILLEENAGH NORTH	Bullaun stone
WA034-041001-	KILLEENAGH NORTH	Church
WA034-040----	KILLEENAGH NORTH	House - 17th century
WA034-042----	KILLEENAGH NORTH	House - 17th century
WA034-077----	KILLEENAGH SOUTH	House - 17th century
WA034-078----	KILLEENAGH SOUTH	House - 17th century
WA034-076----	KILLEENAGH SOUTH	House - 17th century
WA034-048----	KILLEENAGHMOUNTAIN	Cairn - unclassified
WA034-007002-	KILLEENAGHMOUNTAIN	Pit-burial
WA034-007001-	KILLEENAGHMOUNTAIN	Pit-burial
WA024-090----	KILLELTON	Church
WA024-090001-	KILLELTON	Enclosure
WA007-040----	KILLERGUILE	Ringfort - rath
WA007-042002-	KILLERGUILE	Bullaun stone
WA007-042001-	KILLERGUILE	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA007-041----	KILLERGUILE	Ringfort - rath
WA016-087----	KILLONE	Burnt mound
WA025-009001-	KILLONE	Ecclesiastical enclosure
WA025-009002-	KILLONE	Church
WA035-017----	KILLONGFORD	Settlement cluster
WA030-076----	KILLOSSERAGH	Castle - unclassified
WA017-001001-	KILLOTERAN	Church
WA017-001003-	KILLOTERAN	Graveslab
WA017-001004-	KILLOTERAN	Graveslab
WA017-001002-	KILLOTERAN	Graveyard
WA017-118----	KILLOTERAN	Burnt mound
WA017-124----	KILLOTERAN	Fulacht fia
WA017-119----	KILLOTERAN	Water mill - vertical-wheeled
WA017-128----	KILLOTERAN	Excavation - miscellaneous
WA017-125----	KILLOTERAN	Excavation - miscellaneous
WA017-141001-	KILLOTERAN	Fulacht fia
WA017-141002-	KILLOTERAN	Road - class 3 togher
WA017-102----	KILLOWEN (Middlethird By.)	Mill - unclassified
WA017-064----	KILLOWEN (Middlethird By.)	Graveyard
WA017-109----	KILLOWEN (Middlethird By.)	Fulacht fia
WA017-065----	KILLOWEN (Middlethird By.)	Ringfort - rath
WA004-010----	KILLOWEN (Upperthird By.)	Church
WA017-083----	KILLURE	Settlement cluster
WA017-018001-	KILLURE	Church
WA017-018002-	KILLURE	Structure
WA017-138003-	KILLURE	Fulacht fia
WA017-138004-	KILLURE	Fulacht fia
WA017-138001-	KILLURE	Fulacht fia

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-138002-	KILLURE	Fulacht fia
WA027-021----	KILMACLEAGUE EAST	Ringfort - rath
WA027-022----	KILMACLEAGUE EAST	Ringfort - unclassified
WA027-020----	KILMACLEAGUE EAST	Ringfort - unclassified
WA027-019003-	KILMACLEAGUE WEST	Bullaun stone
WA027-019002-	KILMACLEAGUE WEST	Graveyard
WA027-019007-	KILMACLEAGUE WEST	House - 17th century
WA027-019005-	KILMACLEAGUE WEST	Field boundary
WA027-019006-	KILMACLEAGUE WEST	Road - road/trackway
WA027-019001-	KILMACLEAGUE WEST	Church
WA027-091----	KILMACLEAGUE WEST	Midden
WA027-090----	KILMACLEAGUE WEST	Midden
WA027-092----	KILMACLEAGUE WEST	Midden
WA027-093----	KILMACLEAGUE WEST	Midden
WA027-050----	KILMACOMB	House - 17th century
WA027-005----	KILMACOMB	Stone circle
WA027-006002-	KILMACOMB	Graveyard
WA027-086----	KILMACOMB	Enclosure
WA027-006005-	KILMACOMB	Earthwork
WA027-006001-	KILMACOMB	Church
WA027-006003-	KILMACOMB	Bullaun stone
WA027-006004-	KILMACOMB	Ritual site - holy well
WA027-087----	KILMACOMB	Enclosure
WA001-007----	KILMACOMMA	Ringfort - rath
WA001-018----	KILMACOMMA	Ringfort - rath
WA001-007001-	KILMACOMMA	Souterrain
WA001-008----	KILMACOMMA	Ringfort - rath
WA001-009----	KILMACOMMA	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA001-029----	KILMACOMMA	Sheela-na-gig
WA015-052----	KILMACTHOMAS	Well
WA015-040001-	KILMACTHOMAS	Church
WA015-040002-	KILMACTHOMAS	Graveyard
WA015-041----	KILMACTHOMAS	Ritual site - holy well
WA015-039----	KILMACTHOMAS	Castle - unclassified
WA015-069----	KILMACTHOMAS	Mill - unclassified
WA015-071----	KILMACTHOMAS	House - 17th century
WA015-070----	KILMACTHOMAS	Mill - unclassified
WA015-095----	KILMACTHOMAS	Fulacht fia
WA015-097----	KILMACTHOMAS	Metalworking site
WA015-096----	KILMACTHOMAS	Fulacht fia
WA015-100----	KILMACTHOMAS	Excavation - miscellaneous
WA015-101----	KILMACTHOMAS	Excavation - miscellaneous
WA015-112----	KILMACTHOMAS	Burnt mound
WA037-027----	KILMALOO EAST	Church
WA037-050----	KILMALOO EAST	Burnt mound
WA037-027001-	KILMALOO EAST	Enclosure
WA037-047----	KILMALOO EAST,KILMALOO OR CLASHGANNY,KILMALOO WEST	Leacht
WA001-034001-	KILMANAHAN	House - 17th century
WA001-038001-	KILMANAHAN	Weir - fish
WA001-034002-	KILMANAHAN	House - 17th century
WA001-038002-	KILMANAHAN	Weir - fish
WA001-017----	KILMANAHAN	Ringfort - rath
WA001-016----	KILMANAHAN	Castle - tower house
WA001-015002-	KILMANAHAN	Graveyard
WA001-015001-	KILMANAHAN	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA001-049----	KILMANAHAN	Enclosure
WA001-050----	KILMANAHAN	Enclosure
WA001-022----	KILMANAHAN,WHITESFORT	Enclosure
WA034-037002-	KILMANICHOLAS	Graveyard
WA034-044----	KILMANICHOLAS	House - 17th century
WA034-037001-	KILMANICHOLAS	Church
WA027-031001-	KILMAQUAGUE	Ringfort - unclassified
WA027-031002-	KILMAQUAGUE	Souterrain
WA027-065----	KILMAQUAGUE	Church
WA027-065001-	KILMAQUAGUE	Enclosure
WA008-018----	KILMEADAN	Settlement deserted - medieval
WA008-049----	KILMEADAN	House - 17th century
WA008-042----	KILMEADAN	Cist
WA008-018001-	KILMEADAN	Church
WA008-018003-	KILMEADAN	Mill - unclassified
WA008-018002-	KILMEADAN	Graveyard
WA038-023----	KILMEEDY EAST	Ringfort - unclassified
WA038-052----	KILMEEDY EAST,KILMEEDY WEST	Church
WA024-055----	KILMINNIN LOWER	Ringfort - unclassified
WA024-122002-	KILMINNIN LOWER	Bullaun stone
WA024-122001-	KILMINNIN LOWER	Mass-rock
WA031-044002-	KILMINNIN NORTH	Burial ground
WA031-044001-	KILMINNIN NORTH	Church
WA031-044003-	KILMINNIN NORTH	Excavation - miscellaneous
WA024-048----	KILMINNIN UPPER	Ringfort - rath
WA029-027008-	KILMOLASH	Graveslab
WA029-027003-	KILMOLASH	Inscribed stone
WA029-027006-	KILMOLASH	Ogham stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA029-027005-	KILMOLASH	Ritual site - holy well
WA029-027011-	KILMOLASH	Decorated stone
WA029-027001-	KILMOLASH	Church
WA029-027002-	KILMOLASH	Graveyard
WA029-027010-	KILMOLASH	Font
WA029-027007-	KILMOLASH	Graveslab
WA029-027012-	KILMOLASH	Cross-inscribed stone
WA028-028----	KILMORE EAST	Church
WA028-047----	KILMORE EAST	House - 17th century
WA028-045----	KILMORE EAST	House - 17th century
WA028-042----	KILMORE WEST,TOWNPARKS EAST (Coshmore and Coshbride By., Tallow Par.)	House - 17th century
WA008-012----	KILMOVEE	Ringfort - unclassified
WA008-014----	KILMOVEE	Ringfort - unclassified
WA008-015----	KILMOVEE	Enclosure
WA008-013----	KILMOVEE	Ringfort - unclassified
WA008-030001-	KILMOVEE	Church
WA008-048----	KILMOVEE	Standing stone
WA008-051001-	KILMOVEE	Standing stone
WA008-050----	KILMOVEE	Standing stone
WA008-051002-	KILMOVEE	Enclosure
WA008-052----	KILMOVEE	Kiln
WA008-030003-	KILMOVEE	Bullaun stone
WA008-030004-	KILMOVEE	Bullaun stone
WA008-030007-	KILMOVEE	Souterrain
WA008-030002-	KILMOVEE	Ecclesiastical enclosure
WA008-030005-	KILMOVEE	Ritual site - holy well
WA008-030006-	KILMOVEE	Mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-009001-	KILMOYEMOGE EAST	Church
WA016-009002-	KILMOYEMOGE EAST	Graveyard
WA016-010----	KILMOYEMOGE EAST	Barrow - mound barrow
WA016-007----	KILMOYEMOGE EAST	Ritual site - holy well
WA016-009003-	KILMOYEMOGE EAST	Bullaun stone
WA016-125----	KILMOYEMOGE EAST	Standing stone
WA016-136----	KILMOYEMOGE EAST	Enclosure
WA016-142----	KILMOYEMOGE EAST	Enclosure
WA015-056----	KILMOYLIN	Ringfort - unclassified
WA015-072----	KILMOYLIN	Church
WA025-056----	KILMURRIN	Earthwork
WA025-101001-	KILMURRIN	Church
WA025-101002-	KILMURRIN	Graveyard
WA030-072----	KILMURRY	Ritual site - holy well
WA030-071----	KILMURRY	Church
WA023-048----	KILNAFREHAN EAST	Church
WA031-010----	KILNAFREHAN EAST	Ringfort - rath
WA031-011----	KILNAFREHAN EAST	Ringfort - rath
WA023-070----	KILNAFREHAN EAST	Souterrain
WA031-009----	KILNAFREHAN MIDDLE	Ringfort - rath
WA023-027----	KILNAFREHAN WEST	Enclosure
WA031-008----	KILNAFREHAN WEST	Ringfort - unclassified
WA023-063----	KILNAFREHANMOUNTAIN,MONARUDMOUNTAIN	Cairn - boundary cairn
WA015-038001-	KILNAGRANGE	Church
WA015-038002-	KILNAGRANGE	Ecclesiastical enclosure
WA015-033----	KILNAGRANGE	Earthwork
WA015-026----	KILNAGRANGE	Ritual site - holy well
WA015-028----	KILNAGRANGE	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA015-022001-	KILNAGRANGE	Church
WA015-022002-	KILNAGRANGE	Graveyard
WA015-024----	KILNAGRANGE	Ringfort - unclassified
WA015-027----	KILNAGRANGE	Earthwork
WA015-082----	KILNAGRANGE	Fulacht fia
WA015-030----	KILNAGRANGE	Designed landscape - tree-ring
WA015-032----	KILNAGRANGE	Ringfort - unclassified
WA015-023----	KILNAGRANGE	Earthwork
WA015-025----	KILNAGRANGE	Earthwork
WA015-029----	KILNAGRANGE	Ringfort - unclassified
WA015-085001-	KILNAGRANGE	Burnt mound
WA015-085002-	KILNAGRANGE	Burnt mound
WA015-113----	KILNAGRANGE	Standing stone
WA015-114----	KILNAGRANGE	Standing stone
WA001-005----	KILNAMACK EAST	Hilltop enclosure
WA001-041001-	KILNAMACK EAST	Weir - fish
WA001-002----	KILNAMACK EAST	Ringfort - rath
WA001-003----	KILNAMACK EAST	Ringfort - unclassified
WA001-006----	KILNAMACK EAST	Ringfort - rath
WA001-004----	KILNAMACK EAST	Ringfort - rath
WA001-041002-	KILNAMACK EAST	Weir - fish
WA001-040----	KILNAMACK EAST	House - 17th century
WA001-001001-	KILNAMACK WEST	Church
WA001-001002-	KILNAMACK WEST	Graveyard
WA017-075----	KILRONAN	Settlement cluster
WA017-010002-	KILRONAN	Graveyard
WA017-076----	KILRONAN	Ritual site - holy well
WA017-010001-	KILRONAN	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-011----	KILRONAN,BALLYCASHIN,KNOCKEEN	Ringfort - rath
WA017-030----	KILRONAN,SPORTHOUSE	Enclosure
WA023-007004-	KILROSSANTY	Ritual site - holy well
WA023-007002-	KILROSSANTY	Graveyard
WA023-007001-	KILROSSANTY	Church
WA023-007003-	KILROSSANTY	Ritual site - holy well
WA023-007005-	KILROSSANTY	Ritual site - holy well
WA023-007006-	KILROSSANTY	Graveslab
WA023-007007-	KILROSSANTY	Road - hollow-way
WA023-007008-	KILROSSANTY	Ecclesiastical enclosure
WA031-043005-	KILRUSH (Power)	Bullaun stone
WA031-043002-	KILRUSH (Power),GLEBE (Decies without Drum By.)	Graveyard
WA025-094----	KILSTEAGUE	Settlement cluster
WA025-096----	KILSTEAGUE	Castle - unclassified
WA025-095001-	KILSTEAGUE	Graveyard
WA025-095002-	KILSTEAGUE	Standing stone
WA033-004002-	KILWATERMOY	Graveyard
WA033-004003-	KILWATERMOY	Church
WA033-004004-	KILWATERMOY	Souterrain
WA033-029----	KILWATERMOYMOUNTAIN	Cist
WA033-009----	KILWATERMOYMOUNTAIN	Standing stone
WA028-033----	KILWINNY	House - 17th century
WA028-034----	KILWINNY	Church
WA022-051----	KNOCKACAHARNA	Cairn - unclassified
WA022-050----	KNOCKACAHARNA	Fulacht fia
WA022-020----	KNOCKACAHARNA	Enclosure
WA022-018----	KNOCKACAHARNA	Ringfort - rath
WA016-031001-	KNOCKADERRY LOWER	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA016-030----	KNOCKADERRY LOWER	Burnt mound
WA016-032----	KNOCKADERRY LOWER	Burnt mound
WA016-032001-	KNOCKADERRY LOWER	Burnt mound
WA016-030001-	KNOCKADERRY LOWER	Burnt mound
WA016-031002-	KNOCKADERRY LOWER	Burnt mound
WA016-053001-	KNOCKADERRY LOWER	Burnt mound
WA016-051001-	KNOCKADERRY LOWER	Burnt mound
WA016-052----	KNOCKADERRY LOWER	Burnt mound
WA016-053002-	KNOCKADERRY LOWER	Burnt mound
WA016-051002-	KNOCKADERRY LOWER	Burnt mound
WA016-031003-	KNOCKADERRY LOWER	Burnt mound
WA016-095----	KNOCKADERRY LOWER,KNOCKADERRY UPPER	Cairn - unclassified
WA016-094----	KNOCKADERRY LOWER,KNOCKADERRY UPPER	Cist
WA011-005----	KNOCKADULLAUN EAST,KNOCKADULLAUN WEST	Standing stone
WA002-061----	KNOCKALAFALLA	House - 17th century
WA003-015----	KNOCKALAFALLA	Enclosure
WA003-014----	KNOCKALAFALLA	Enclosure
WA003-082----	KNOCKALAFALLA,RATHGORMUCK	Ogham stone
WA029-014----	KNOCKALAHARA,AFFANE (Part of),BEWLEY,COOLANHEEN,DRUMROE,QUARTER,SHESKIN (Decies without Drum By., Affane Par.),KILCLOHER,SPRINGFIELD (Decies without Drum By.)	Road - road/trackway
WA005-035----	KNOCKALISHEEN (Glenahiry By.)	Enclosure
WA005-049----	KNOCKALISHEEN (Glenahiry By.)	Enclosure
WA005-019----	KNOCKALISHEEN (Glenahiry By.)	Ringfort - rath
WA005-064----	KNOCKALISHEEN (Upperthird By.)	Standing stone
WA014-016----	KNOCKANACULLIN	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA014-017----	KNOCKANACULLIN	Cairn - clearance cairn
WA014-015----	KNOCKANACULLIN	Enclosure
WA006-017001-	KNOCKANAFFRIN	Earthwork
WA006-018----	KNOCKANAFFRIN	Enclosure
WA006-054----	KNOCKANAFFRIN	Stone row
WA006-055001-	KNOCKANAFFRIN	Stone row
WA006-063----	KNOCKANAFFRIN	Standing stone
WA006-055002-	KNOCKANAFFRIN	Enclosure
WA006-055003-	KNOCKANAFFRIN	Enclosure
WA006-031----	KNOCKANAFFRIN	Hut site
WA006-055004-	KNOCKANAFFRIN	Field system
WA006-017003-	KNOCKANAFFRIN	Children's burial ground
WA006-017002-	KNOCKANAFFRIN	Church
WA006-064----	KNOCKANAFFRIN	Fulacht fia
WA006-070----	KNOCKANAFFRIN	Standing stone
WA016-011----	KNOCKANAGH (Middlethird By., Kilmeadan Par.),ADAMSTOWN (Middlethird By., Kilmeadan Par.)	Designed landscape - tree-ring
WA025-093001-	KNOCKANE (Decies without Drum By.)	House - 17th century
WA025-093002-	KNOCKANE (Decies without Drum By.)	House - 17th century
WA025-057----	KNOCKANE (Middlethird By.)	Enclosure
WA034-021----	KNOCKANEARIS	Ringfort - rath
WA034-023----	KNOCKANEARIS	Ringfort - rath
WA034-026----	KNOCKANEARIS	Enclosure
WA034-024002-	KNOCKANEARIS	Bullaun stone
WA012-001----	KNOCKANNANAGH,KNOCKAUNGARRIFF,POULFADDA, REANABARNA	Road - road/trackway
WA013-004----	KNOCKARAHA	Ringfort - rath
WA031-028----	KNOCKATEEMORE	Ringfort - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-027----	KNOCKATEEMORE	Ringfort - unclassified
WA005-052----	KNOCKATRELLANE	Hilltop enclosure
WA005-050----	KNOCKATRELLANE	Standing stone
WA005-053----	KNOCKATRELLANE	Fulacht fia
WA005-058----	KNOCKATRELLANE	Mine
WA007-074004-	KNOCKATURNORY	Bullaun stone
WA007-074003-	KNOCKATURNORY	Bullaun stone
WA007-038----	KNOCKATURNORY	Ringfort - rath
WA007-074002-	KNOCKATURNORY	Ecclesiastical enclosure
WA007-037----	KNOCKATURNORY	Ringfort - rath
WA007-074001-	KNOCKATURNORY	Church
WA007-090----	KNOCKATURNORY	Stone row
WA007-084----	KNOCKATURNORY	Fulacht fia
WA007-088----	KNOCKATURNORY	Mine
WA007-093----	KNOCKATURNORY	Fulacht fia
WA007-084001-	KNOCKATURNORY	Fulacht fia
WA030-025----	KNOCKAUN (Decies without Drum By.)	Ringfort - unclassified
WA033-028----	KNOCKAUN NORTH	House - 17th century
WA033-013001-	KNOCKAUN SOUTH	Linear earthwork
WA033-013----	KNOCKAUN SOUTH,LYRENACARRIGA	Boundary stone
WA023-043----	KNOCKAUNAGLOON	Bullaun stone
WA023-075----	KNOCKAUNAGLOON	Ringfort - cashel
WA012-011----	KNOCKAUNGARRIFF	Road - road/trackway
WA022-019----	KNOCKAUNNAGLOKEE	Ringfort - rath
WA022-049----	KNOCKAUNNAGLOKEE	Cairn - unclassified
WA038-063----	KNOCKAUNNAGOUN	Inscribed stone
WA006-056----	KNOCKAVANNIA	Fulacht fia
WA005-046----	KNOCKAVANNIA	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA006-021----	KNOCKAVANNIA	Ringfort - unclassified
WA005-041----	KNOCKAVANNIA	Standing stone
WA005-022----	KNOCKAVANNIA	Ringfort - unclassified
WA027-051----	KNOCKAVELISH	House - 17th century
WA027-011----	KNOCKAVELISH	Ringfort - rath
WA027-013----	KNOCKAVELISH	Habitation site
WA027-083----	KNOCKAVELISH	Enclosure
WA027-082----	KNOCKAVELISH	Enclosure
WA019A001----	KNOCKBAUN	Metalworking site
WA013-034001-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Church
WA013-034004-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Church
WA013-034005-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-037----	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Enclosure
WA013-038001-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Enclosure
WA013-032001-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ritual site - holy well
WA013-034006-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034009-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034010-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034011-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ecclesiastical enclosure
WA013-034014-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034016-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Headstone
WA013-031----	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Enclosure
WA013-034007-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034017-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Cross-inscribed stone
WA013-038002-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Stone row
WA013-046----	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Cairn - unclassified
WA013-032002-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Burnt mound
WA013-016----	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ringfort - rath

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA013-033----	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Enclosure
WA013-034002-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Graveyard
WA013-034003-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Font
WA013-034008-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA013-034015-	KNOCKBOY (Decies without Drum By., Seskinan Par.)	Ogham stone
WA020-001----	KNOCKCORRAGH	Standing stone
WA017-033002-	KNOCKEEN	Graveyard
WA017-034----	KNOCKEEN	Megalithic tomb - portal tomb
WA017-032001-	KNOCKEEN	Ringfort - rath
WA017-032002-	KNOCKEEN	Field system
WA017-033001-	KNOCKEEN	Church
WA017-086----	KNOCKEEN	House - 17th century
WA017-097001-	KNOCKEEN	Enclosure
WA017-097002-	KNOCKEEN	Souterrain
WA022-039----	KNOCKGARRAUN (Sergeant)	Ritual site - holy well
WA022-038----	KNOCKGARRAUN (Sergeant)	Ringfort - unclassified
WA008-016----	KNOCKHOUSE (Upperthird By.)	Ringfort - unclassified
WA016-003----	KNOCKHOUSE (Upperthird By.)	Ringfort - unclassified
WA016-004----	KNOCKHOUSE (Upperthird By.)	Ringfort - rath
WA009-003001-	KNOCKHOUSE LOWER	Ringfort - rath
WA009-003002-	KNOCKHOUSE LOWER	Field system
WA009-026----	KNOCKHOUSE LOWER	Excavation - miscellaneous
WA009-031----	KNOCKHOUSE LOWER	Enclosure
WA009-027----	KNOCKHOUSE LOWER	Habitation site
WA009-025----	KNOCKHOUSE LOWER	Fulacht fia
WA009-029----	KNOCKHOUSE LOWER	Excavation - miscellaneous
WA009-028----	KNOCKHOUSE LOWER	Hut site
WA009-003008-	KNOCKHOUSE LOWER	Excavation - miscellaneous

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-045----	KNOCKHOUSE LOWER	Burnt mound
WA009-047----	KNOCKHOUSE LOWER	Kiln
WA009-003005-	KNOCKHOUSE LOWER	Souterrain
WA009-046----	KNOCKHOUSE LOWER	Burnt mound
WA009-003003-	KNOCKHOUSE LOWER	Structure
WA009-003004-	KNOCKHOUSE LOWER	Structure
WA009-003006-	KNOCKHOUSE LOWER	Souterrain
WA009-003007-	KNOCKHOUSE LOWER	Structure
WA009-021----	KNOCKHOUSE UPPER	Fulacht fia
WA009-022----	KNOCKHOUSE UPPER	Excavation - miscellaneous
WA009-032001-	KNOCKHOUSE UPPER	Fulacht fia
WA009-032002-	KNOCKHOUSE UPPER	Fulacht fia
WA009-044----	KNOCKHOUSE UPPER	Hearth
WA001-013001-	KNOCKLUCAS	Ritual site - holy tree/bush
WA001-013----	KNOCKLUCAS	Ritual site - holy well
WA001-048----	KNOCKLUCAS	Standing stone
WA025-065----	KNOCKMAHON	Promontory fort - coastal
WA025-065001-	KNOCKMAHON	Ogham stone
WA025-065002-	KNOCKMAHON	Ogham stone
WA030-041001-	KNOCKMAON	Castle - tower house
WA030-042001-	KNOCKMAON	Church
WA030-041002-	KNOCKMAON	Bawn
WA030-042003-	KNOCKMAON	Cross-inscribed stone
WA030-042002-	KNOCKMAON	Graveyard
WA012-010----	KNOCKMEALDOWN	Burial
WA038-024----	KNOCKMEELMORE	Barrow - unclassified
WA003-043----	KNOCKNACREHA	Enclosure
WA003-097----	KNOCKNACREHA	Bullaun stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA003-045002-	KNOCKNACREHA	Enclosure
WA003-045001-	KNOCKNACREHA	Boundary stone
WA003-107----	KNOCKNACREHA	Boundary stone (present location)
WA003-106----	KNOCKNACREHA	Bullaun stone (present location)
WA030-004----	KNOCKNACROOHA UPPER	Fulacht fia
WA030-008----	KNOCKNACROOHA UPPER	Burnt mound
WA030-009----	KNOCKNACROOHA UPPER	Ringfort - unclassified
WA030-079----	KNOCKNACROOHA UPPER	Fulacht fia
WA031-030----	KNOCKNAGRANAGH	Ringfort - unclassified
WA035-006----	KNOCKNAHOOLA	Ritual site - holy well
WA022-062----	KNOCKNAMAULEE	Standing stone
WA022-063----	KNOCKNAMAULEE	Standing stone
WA030-068----	KNOCKNAMONA	Standing stone
WA012-009----	KNOCKNANASK	Barracks
WA029-058----	KNOCKNARAHA	Enclosure
WA029-035----	KNOCKNARAHA	Standing stone
WA018-009004-	KNOCKROE (Gaultiere By.)	Ritual site - holy well
WA018-009003-	KNOCKROE (Gaultiere By.)	Church
WA018-009006-	KNOCKROE (Gaultiere By.),PASSAGE EAST,PASSAGE WEST	Weir - fish
WA018-009----	KNOCKROE (Gaultiere By.),PASSAGE EAST,PASSAGE WEST	Settlement cluster
WA033-007----	KNOCKROUR	Ringfort - unclassified
WA023-041----	KNOCKYELAN	Church
WA023-082----	KNOCKYELAN	Enclosure
WA032-021001-	KNOCKYOOLAHAN EAST	Standing stone
WA031-059----	KNOCKYOOLAHAN EAST,KNOCKYOOLAHAN WEST	Standing stone
WA031-063----	KNOCKYOOLAHAN EAST,KNOCKYOOLAHAN WEST	Settlement cluster

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA032-020----	KNOCKYOOLAHAN WEST	Burial
WA019-004----	LABBANACALLEE	Megalithic tomb - unclassified
WA013-035----	LACKANDARRA UPPER	Ringfort - rath
WA013-036----	LACKANDARRA UPPER	Ringfort - rath
WA031-013----	LACKEN (Decies without Drum By., Dungarvan Par.)	Ringfort - rath
WA017-015----	LACKEN (Gaultiere By.)	Bridge
WA017-014----	LACKEN (Gaultiere By.)	Ringfort - unclassified
WA035-019----	LACKENAGREANY	Standing stone
WA031-054----	LACKENFUNE	Enclosure
WA034-011----	LACKENSILLAGH	Enclosure
WA008-034----	LAHARDAN	Enclosure
WA002-055----	LANDSCAPE	Megalithic tomb - unclassified
WA030-064----	LAURAGH	Earthwork
WA027-054----	LECKAUN	Bullaun stone
WA027-053----	LECKAUN	House - 17th century
WA027-009----	LEPERSTOWN	Ringfort - unclassified
WA027-081----	LEPERSTOWN	Enclosure
WA028-023----	LIMEKILNCLOSE	House - 17th century
WA017-037----	LISDUGGAN (Tramore ED)	Ringfort - unclassified
WA028-013----	LISFINNY	Castle - tower house
WA028-021----	LISFINNY	Metalworking site
WA028-013001-	LISFINNY	Bawn
WA002-004----	LISHEEN	Ringfort - rath
WA038-008----	LISKEELTY (Decies within Drum By., Ballymacart Par.)	Ringfort - rath
WA013-022----	LISLEAGH	Ringfort - rath
WA022-003001-	LISLEAGH	Ringfort - rath
WA022-003002-	LISLEAGH	Hut site
WA021-019019-	LISMORE (Coshmore and Coshbride By.)	Architectural feature

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA021-019018-	LISMORE (Coshmore and Coshbride By.)	Walled garden
WA021-019020-	LISMORE (Coshmore and Coshbride By.)	Armorial plaque
WA021-019001-	LISMORE (Coshmore and Coshbride By.)	Castle - Anglo-Norman masonry castle
WA021-019003-	LISMORE (Coshmore and Coshbride By.)	Cathedral
WA021-019002-	LISMORE (Coshmore and Coshbride By.)	Ecclesiastical enclosure
WA021-019004-	LISMORE (Coshmore and Coshbride By.)	Graveyard
WA021-019008-	LISMORE (Coshmore and Coshbride By.)	Ritual site - holy well
WA021-019021-	LISMORE (Coshmore and Coshbride By.)	Gatehouse
WA021-019007-	LISMORE (Coshmore and Coshbride By.)	Ritual site - holy well
WA021-019005-	LISMORE (Coshmore and Coshbride By.)	Cross-slab
WA021-019006-	LISMORE (Coshmore and Coshbride By.)	Architectural fragment
WA021-019010-	LISMORE (Coshmore and Coshbride By.)	Sheela-na-gig (present location)
WA021-019013-	LISMORE (Coshmore and Coshbride By.)	Cross-slab
WA021-019011-	LISMORE (Coshmore and Coshbride By.)	Cross-slab
WA021-019012-	LISMORE (Coshmore and Coshbride By.)	Cross-slab
WA021-019015-	LISMORE (Coshmore and Coshbride By.)	Stone sculpture
WA021-019017-	LISMORE (Coshmore and Coshbride By.)	Tomb - chest tomb
WA021-019014-	LISMORE (Coshmore and Coshbride By.)	Cross-slab
WA021-019016-	LISMORE (Coshmore and Coshbride By.)	Graveslab
WA021-019022-	LISMORE (Coshmore and Coshbride By.)	Church
WA021-019023-	LISMORE (Coshmore and Coshbride By.)	Ogham stone (present location)
WA021-019024-	LISMORE (Coshmore and Coshbride By.)	Sundial
WA009-016----	LISMORE (Middlethird By.)	Enclosure
WA024-112----	LISNAGERAGH	Enclosure
WA024-086----	LISNAGERAGH	House - 17th century
WA017-023003-	LISNAKILL	Enclosure
WA017-023004-	LISNAKILL	Architectural fragment
WA017-023002-	LISNAKILL	Graveyard

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA017-106----	LISNAKILL	Urn burial
WA017-023001-	LISNAKILL	Church
WA017-122----	LISNAKILL	Cist
WA022-042----	LISROE	Ringfort - unclassified
WA016-046----	LISSAHANE	Earthwork
WA016-077001-	LISSAHANE	House - 17th century
WA016-077002-	LISSAHANE	House - 17th century
WA016-045----	LISSAHANE	Ringfort - rath
WA016-044----	LISSAHANE	Standing stone - pair
WA016-048----	LISSAHANE	Ringfort - rath
WA038-025----	LISSANISKA	Ringfort - rath
WA038-055----	LISSAROW (Decies within Drum By., Ardmore Par.),LISSAROW (Decies within Drum By., Ballymacart Par.),TONTEHEIGE	Enclosure
WA038-030----	LISSAROW (Decies within Drum By., Ballymacart Par.)	Souterrain
WA025-119----	LISSAVIRON	Enclosure
WA027-025008-	LISSELTY	Burnt spread
WA027-025002-	LISSELTY	Burnt mound
WA027-036----	LISSELTY	Ringfort - unclassified
WA027-025005-	LISSELTY	Burnt spread
WA027-025006-	LISSELTY	Burnt mound
WA027-025007-	LISSELTY	Burnt spread
WA027-025003-	LISSELTY	Midden
WA027-025004-	LISSELTY	Burnt mound
WA010-008----	LITTLE ISLAND	Castle - unclassified
WA036-013----	LOG NA GIÚISÍ	Standing stone
WA036-023----	LOISCREÁ□N	House - 17th century
WA039-015001-	LOISCREÁ□N	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA039-016----	LOISCREÁ□N	Standing stone
WA039-015002-	LOISCREÁ□N	Cross
WA016-115----	LOUGHDEHEEN	Burnt mound
WA016-111----	LOUGHDEHEEN	Burnt mound
WA016-059004-	LOUGHDEHEEN	Ritual site - holy well
WA016-110----	LOUGHDEHEEN	Burnt mound
WA016-059002-	LOUGHDEHEEN	Ecclesiastical enclosure
WA016-059003-	LOUGHDEHEEN	Bullaun stone
WA017-019001-	LOUGHDEHEEN	Bawn
WA016-121----	LOUGHDEHEEN	Standing stone
WA016-059001-	LOUGHDEHEEN	Church
WA017-073----	LOUGHDEHEEN	Mill - unclassified
WA017-020001-	LOUGHDEHEEN	Enclosure
WA017-021----	LOUGHDEHEEN	Ringfort - rath
WA017-019----	LOUGHDEHEEN	Gatehouse
WA028-026002-	LOUGHNASOLLIS LOWER	House - 17th century
WA028-026003-	LOUGHNASOLLIS LOWER	House - 17th century
WA028-027----	LOUGHNASOLLIS LOWER	House - 17th century
WA028-026001-	LOUGHNASOLLIS LOWER	House - 17th century
WA028-029----	LOUGHNASOLLIS UPPER	House - 17th century
WA033-032----	LOUGHNATOUSE	House - 17th century
WA033-001001-	LOUGHNATOUSE	Enclosure
WA031-042----	LUSKANARGID	Ringfort - rath
WA022-002----	LYRATTIN	Ringfort - unclassified
WA022-001----	LYRATTIN	Enclosure
WA021-007----	LYRE EAST (Coshmore and Coshbride By.)	Ringfort - unclassified
WA006-028001-	LYRE EAST (Decies without Drum By.)	Enclosure
WA006-028002-	LYRE EAST (Decies without Drum By.)	Burial ground

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA006-057----	LYRE WEST (Decies without Drum By.)	Fulacht fia
WA006-059----	LYREMOUNTAIN	Standing stone
WA006-058001-	LYREMOUNTAIN	Fulacht fia
WA014-045----	LYREMOUNTAIN	Hut site
WA006-058002-	LYREMOUNTAIN	Fulacht fia
WA033-012----	LYRENACARRIGA	Standing stone
WA033-010----	LYRENACARRIGA	Cairn - unclassified
WA033-036----	LYRENACARRIGA	House - 17th century
WA033-014----	LYRENACARRIGA,BALLYNATRAY COMMONS	Boundary stone
WA022-022----	MAGAHA	Enclosure
WA036-024----	MAOIL AN CHOIRNIGH (Par. Áird Mhóir),MAOIL AN CHOIRNIGH (Par. Rinn Ó gCuanach)	Cairn - unclassified
WA030-051----	MAPESTOWN	Enclosure
WA031-069----	MAPESTOWN	Standing stone
WA026-003----	MATTHEWSTOWN	Megalithic tomb - passage tomb
WA026-004----	MATTHEWSTOWN	Earthwork
WA026-020----	MATTHEWSTOWN	Enclosure
WA026-087----	MATTHEWSTOWN	Burnt mound
WA004-012----	MAYFIELD OR ROCKETSCASTLE	House - 17th century
WA008-004----	MAYFIELD OR ROCKETSCASTLE	Castle - tower house
WA008-045----	MAYFIELD OR ROCKETSCASTLE	Burnt mound
WA008-044001-	MAYFIELD OR ROCKETSCASTLE	Cist
WA008-044002-	MAYFIELD OR ROCKETSCASTLE	Excavation - miscellaneous
WA036-002----	MIDDLEQUARTER	Enclosure
WA036-001001-	MIDDLEQUARTER	Church
WA031-046001-	MIDDLEQUARTER	Ringfort - rath
WA036-001002-	MIDDLEQUARTER	Graveyard
WA031-046002-	MIDDLEQUARTER	Castle - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA036-032----	MIDDLEQUARTER	Bullaun stone
WA036-033----	MIDDLEQUARTER	Stone sculpture
WA031-046003-	MIDDLEQUARTER	Earthwork
WA038-026005-	MILL AND CHURCHQUARTER	Headstone
WA038-026002-	MILL AND CHURCHQUARTER	Church
WA038-026003-	MILL AND CHURCHQUARTER	Ogham stone
WA038-026004-	MILL AND CHURCHQUARTER	Headstone
WA038-026001-	MILL AND CHURCHQUARTER	Graveyard
WA024-047----	MILLERSTOWN	Ringfort - rath
WA024-089----	MILLERSTOWN	Souterrain
WA028-041----	MOANFUNE	Gallows
WA028-053001-	MOANFUNE	Mill - unclassified
WA028-053002-	MOANFUNE	Mill - unclassified
WA019-002001-	MOCOLLOP	Church
WA020-024----	MOCOLLOP	Mill - unclassified
WA019-006----	MOCOLLOP	Mill - unclassified
WA019-002002-	MOCOLLOP	Graveyard
WA019-007----	MOCOLLOP	Mine
WA019-002003-	MOCOLLOP	Headstone
WA019-003----	MOCOLLOP	Castle - Anglo-Norman masonry castle
WA002-046----	MONADIHA	Ringfort - rath
WA002-065----	MONADIHA	Standing stone
WA002-044----	MONADIHA	Enclosure
WA002-045----	MONADIHA	Enclosure
WA002-066----	MONADIHA	Cairn - unclassified
WA003-035----	MONADIHA,RATHGORMUCK	Ringfort - rath
WA035-003----	MONAGALLY WEST	Ringfort - rath
WA035-027----	MONAGALLY WEST	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA035-030----	MONAGALLY WEST	Ringfort - rath
WA039-020----	MONAGOUSH	Mine
WA024-052----	MONAKIRKA	Ringfort - rath
WA021-002----	MONALOUR LOWER,COOLADALANE UPPER,GLENTAUN WEST,RATH UPPER	Road - road/trackway
WA035-018001-	MONALUMMERY	Cairn - unclassified
WA035-018002-	MONALUMMERY	Standing stone
WA035-028----	MONALUMMERY	Ritual site - holy well
WA035-022----	MONAMEEAN	Metalworking site
WA025-064----	MONAMELAGH	Enclosure
WA017-092----	MONAMINTRA	House - 17th century
WA018-084----	MONAMINTRA	Barrow - ditch barrow
WA017-139----	MONAMINTRA	Fulacht fia
WA018-084001-	MONAMINTRA	Pit-burial
WA018-084002-	MONAMINTRA	Pit-burial
WA018-084003-	MONAMINTRA	Pit-burial
WA034-012----	MONANG (Coshmore and Coshbride By.)	Well
WA034-053----	MONANG (Coshmore and Coshbride By.)	House - 17th century
WA040-002----	MONATRAY EAST	Ritual site - holy well
WA040-012002-	MONATRAY EAST	House - 17th century
WA040-018----	MONATRAY EAST	Castle - unclassified
WA040-012001-	MONATRAY EAST	House - 17th century
WA040A002----	MONATRAY MIDDLE	Enclosure
WA028-040----	MONATRIM LOWER	Weir - fish
WA029-077----	MONATRIM UPPER	Ring-ditch
WA029-017----	MONATRIM UPPER	Ringfort - unclassified
WA038-037----	MONEA	Ringfort - rath
WA040-017----	MONEA	Cross (present location)

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA038-065001-	MONEA	Fulacht fia
WA038-065002-	MONEA	Kiln
WA026-082----	MONLOUM	Burnt spread
WA007-039----	MONMINANE	Enclosure
WA026-013----	MONVOY	Standing stone
WA026-014----	MONVOY	Ringfort - rath
WA026-078----	MONVOY	Mine
WA029-054002-	MONYVROE	Enclosure
WA029-054001-	MONYVROE	Burial ground
WA037-031----	MOORD	Ritual site - holy well
WA007-010012-	MOTHEL	Cross-slab
WA007-010005-	MOTHEL	Graveslab
WA007-052----	MOTHEL	Castle - unclassified
WA007-011----	MOTHEL	Cross-inscribed pillar
WA007-010010-	MOTHEL	Cross
WA007-010002-	MOTHEL	Graveyard
WA007-010003-	MOTHEL	Tomb - chest tomb
WA007-053002-	MOTHEL	House - 17th century
WA007-054----	MOTHEL	Rock art
WA007-010001-	MOTHEL	Religious house - Augustinian canons
WA007-010004-	MOTHEL	Graveslab
WA007-010006-	MOTHEL	Graveslab
WA007-053001-	MOTHEL	Mill - unclassified
WA007-010013-	MOTHEL	Tomb - chest tomb
WA022-016----	MOUNTAINCASTLE SOUTH	Ringfort - unclassified
WA004-001----	MOUNTBOLTON	Well
WA004-021----	MOUNTBOLTON	Hearth
WA004-026----	MOUNTBOLTON	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA004-019----	MOUNTBOLTON	Burnt mound
WA004-027----	MOUNTBOLTON	Burnt mound
WA004-020----	MOUNTBOLTON	Burnt mound
WA004-025----	MOUNTBOLTON	Burnt mound
WA021-003001-	MOUNTMELLERAY	Ogham stone (present location)
WA021-003003-	MOUNTMELLERAY	Ogham stone (present location)
WA021-003005-	MOUNTMELLERAY	Ogham stone (present location)
WA021-003002-	MOUNTMELLERAY	Ogham stone (present location)
WA021-003004-	MOUNTMELLERAY	Ogham stone (present location)
WA009-017001-	MOUNTMISERY	Standing stone
WA009-017003-	MOUNTMISERY	Mound
WA009-017002-	MOUNTMISERY	Standing stone
WA030-070----	MOUNTODELL	Cairn - unclassified
WA030-056----	MOUNTODELL	House - 17th century
WA030-083----	MOUNTODELL	Burnt mound
WA030-081----	MOUNTODELL	Souterrain
WA030-082----	MOUNTODELL	Burnt mound
WA029-076----	MOUNTRIVERS	Castle - unclassified
WA029-013----	MOUNTRIVERS,AFFANE HUNTER	Settlement deserted - medieval
WA017-112002-	MUNMAHOGE (Middlethird By., Kilbride Par.)	Enclosure
WA017-112001-	MUNMAHOGE (Middlethird By., Kilbride Par.)	Enclosure
WA017-144----	MUNMAHOGE (Middlethird By., Kilbride Par.)	Enclosure
WA017-096----	MUNMAHOGE (Middlethird By., Kilbride Par.),MUNMAHOGE (Middlethird By., Kilburne Par.)	House - 17th century
WA017-035----	MUNMAHOGE (Middlethird By., Kilburne Par.)	Megalithic tomb - wedge tomb
WA007-063----	MUNSBURROW	House - 17th century
WA007-027001-	MUNSBURROW	Enclosure
WA007-020----	MUNSBURROW	Earthwork

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA007-062----	MUNSBURROW	Ecclesiastical residence
WA007-027003-	MUNSBURROW	Enclosure
WA007-019----	MUNSBURROW	Enclosure
WA007-027002-	MUNSBURROW	Enclosure
WA007-064----	MUNSBURROW	House - 17th century
WA034-033----	NEWPORT EAST	Ritual site - holy well
WA037-037001-	NEWPORT EAST	House - 17th century
WA037-006----	NEWPORT EAST	Prehistoric site - lithic scatter
WA037-037002-	NEWPORT EAST	House - 17th century
WA037-036001-	NEWPORT EAST	House - 17th century
WA037-036002-	NEWPORT EAST	Barn
WA034-029----	NEWPORT WEST	Earthwork
WA034-030----	NEWPORT WEST	Ringfort - rath
WA034-031----	NEWPORT WEST	Ringfort - rath
WA034-032----	NEWPORT WEST	Enclosure
WA037-035----	NEWPORT WEST	House - 17th century
WA038-059----	NEWTOWN (Decies within Drum By., Ardmore Par.)	Standing stone
WA036-031----	NEWTOWN (Decies without Drum By., Dungarvan Par.)	Standing stone (present location)
WA036-030----	NEWTOWN (Decies without Drum By., Dungarvan Par.)	Standing stone
WA022-011----	NEWTOWN (Decies without Drum By., Modelligo Par.)	Ringfort - unclassified
WA015-067----	NEWTOWN (Decies without Drum By., Rossduff Par.),PARKEENNAGLOGH	Settlement cluster
WA018-024----	NEWTOWN (Gaultiere By., Crooke Par.)	Barracks
WA026-042----	NEWTOWN (Middlethird By., Drumcannon Par.)	Enclosure
WA026-061----	NEWTOWN (Middlethird By., Drumcannon Par.)	House - 17th century
WA026-080----	NEWTOWN (Middlethird By., Drumcannon Par.)	Stone sculpture

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA025-063----	NEWTOWN (Middlethird By., Islandikane Par.)	Ringfort - unclassified
WA029-011----	NORRISLAND	House - 17th century
WA027-060----	NYMPHHALL	House - 17th century
WA027-088----	NYMPHHALL	Promontory fort - coastal
WA029-029----	OKYLE	Burial ground
WA029-030----	OKYLE	Church
WA007-057----	OLDGRANGE	Megalithic structure
WA018-065----	ORCHARDSTOWN (Gaultiere By.)	Burnt mound
WA018-063----	ORCHARDSTOWN (Gaultiere By.)	Enclosure
WA018-053----	ORCHARDSTOWN (Gaultiere By.)	Burial ground
WA017-007----	ORCHARDSTOWN (Middlethird By.)	Ringfort - unclassified
WA028-037001-	PADDOCK	House - 17th century
WA028-037002-	PADDOCK	House - 17th century
WA024-056----	PARK (Decies without Drum By.)	Enclosure
WA002-040001-	PARK (Upperthird By.)	Church
WA002-040002-	PARK (Upperthird By.)	Graveyard
WA002-040003-	PARK (Upperthird By.)	Ecclesiastical enclosure
WA002-040004-	PARK (Upperthird By.)	Ritual site - holy well
WA002-040006-	PARK (Upperthird By.)	Megalithic structure
WA002-059----	PARK (Upperthird By.)	House - 17th century
WA002-039----	PARK (Upperthird By.)	Enclosure
WA002-040005-	PARK (Upperthird By.)	Bullaun stone
WA002-040007-	PARK (Upperthird By.)	Cairn - clearance cairn
WA002-040008-	PARK (Upperthird By.)	Megalithic structure
WA002-076----	PARK (Upperthird By.)	Standing stone
WA002-077----	PARK (Upperthird By.)	Water mill - horizontal-wheeled
WA002-020001-	PARK (Upperthird By.)	Enclosure
WA002-022----	PARK (Upperthird By.)	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA002-023001-	PARK (Upperthird By.)	Enclosure
WA002-023002-	PARK (Upperthird By.)	Souterrain
WA002-024----	PARK (Upperthird By.)	Enclosure
WA002-019----	PARK (Upperthird By.)	Enclosure
WA002-020002-	PARK (Upperthird By.)	Bullaun stone
WA002-060----	PARKBEG	House - 17th century
WA002-078----	PARKBEG	Standing stone
WA002-026----	PARKBEG	Enclosure
WA002-025----	PARKBEG	Ringfort - rath
WA002-027001-	PARKBEG	Ringfort - rath
WA002-027002-	PARKBEG	Standing stone
WA028-030002-	PARKDOTIA	House - 17th century
WA028-030001-	PARKDOTIA	Kiln - lime
WA015-034----	PARKEENNAGLOGH	Ritual site - holy well
WA010-018----	PARKSWOOD LOWER	Weir - fish
WA010-017----	PARKSWOOD UPPER	Weir - fish
WA018-009005-	PASSAGE EAST	House - 16th century
WA018-009001-	PASSAGE EAST	Bastioned fort
WA018-009009-	PASSAGE EAST	Armorial plaque
WA018-009010-	PASSAGE EAST	Excavation - miscellaneous
WA018-009002-	PASSAGE WEST	House - 16th century
WA018-009008-	PASSAGE WEST,KNOCKROE (Gaultiere By.),PASSAGE EAST	Mill - unclassified
WA018-009007-	PASSAGE WEST,KNOCKROE (Gaultiere By.),PASSAGE EAST	Mill - unclassified
WA017-024----	PEMBROKESTOWN	Castle - motte
WA017-085----	PEMBROKESTOWN	House - 17th century
WA017-022----	PEMBROKESTOWN	Enclosure

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA026-077----	PICKARDSTOWN	Standing stone
WA037-029001-	PILLTOWN	Castle - unclassified
WA037-028----	PILLTOWN	Ringfort - rath
WA037-030002-	PILLTOWN	Graveyard
WA037-030001-	PILLTOWN	Church
WA037-029002-	PILLTOWN	Mill - unclassified
WA037-029----	PILLTOWN	Settlement cluster
WA037-055----	PILLTOWN	Excavation - miscellaneous
WA037-054----	PILLTOWN	Excavation - miscellaneous
WA037-058----	PILLTOWN	Habitation site
WA027-044----	PORTALLY	Mound
WA027-089----	PORTALLY	Promontory fort - coastal
WA004-015----	PORTNABOE	Burnt mound
WA004-004----	PORTNABOE,TINHALLA	Water mill - unclassified
WA002-033----	POULAVONE	Ringfort - unclassified
WA002-063----	POULAVONE	House - 17th century
WA021-046----	POULFADDA	Road - road/trackway
WA016-039----	POWERSKNOCK	Ringfort - rath
WA016-040----	POWERSKNOCK	Ringfort - unclassified
WA016-038----	POWERSKNOCK	Standing stone
WA016-108----	POWERSKNOCK	Burnt mound
WA040A001002-	PROSPECTHALL	Graveyard
WA040A001001-	PROSPECTHALL	Church
WA040A001003-	PROSPECTHALL	Graveslab
WA036-012----	PULLA	Burial ground
WA036-026----	RÁ□TH NA mBINÁNEACH (Par. Rinn Ó gCuanach)	Standing stone
WA036-027----	RÁ□TH NA mBINÁ□NEACH (Par. Rinn Ó gCuanach)	Standing stone
WA033-017----	RACECOURSE	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA018-049----	RAHEEN (Gaultiere By.)	Settlement cluster
WA001-046----	RAHEEN (Upperthird By.)	Cist
WA016-041----	RAHEENS	Enclosure
WA016-112----	RAHEENS	Standing stone
WA016-113----	RAHEENS	Standing stone
WA016-119----	RAHEENS	Fulacht fia
WA016-114----	RAHEENS	Souterrain
WA016-118----	RAHEENS	Standing stone
WA020-026001-	RALPH	Burial ground
WA003-031----	RATH (Upperthird By.)	Megalithic structure
WA003-101----	RATH (Upperthird By.)	Enclosure
WA021-010002-	RATH LOWER	Enclosure
WA021-010001-	RATH LOWER	Burial ground
WA016-057----	RATHANNY	Enclosure
WA016-123----	RATHANNY	Standing stone
WA009-004----	RATHFADDAN	Mound
WA003-039003-	RATHGORMUCK	Bawn
WA003-040001-	RATHGORMUCK	Church
WA003-036----	RATHGORMUCK	Earthwork
WA003-085----	RATHGORMUCK	Enclosure
WA003-039002-	RATHGORMUCK	Castle - unclassified
WA003-039001-	RATHGORMUCK	Castle - tower house
WA003-040003-	RATHGORMUCK	Bullaun stone
WA015-031----	RATHMAIDEN	Earthwork
WA015-087----	RATHMAIDEN	Stone row
WA015-011----	RATHMAIDEN	Ringfort - rath
WA027-041001-	RATHMOYLAN	Church
WA027-041002-	RATHMOYLAN	Graveyard

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA027-042----	RATHMOYLAN	Ringfort - rath
WA027-039003-	RATHMOYLAN	Metalworking site
WA027-043----	RATHMOYLAN	Promontory fort - coastal
WA027-039----	RATHMOYLAN	Field system
WA027-039002-	RATHMOYLAN	Midden
WA027-039001-	RATHMOYLAN	Enclosure
WA024-051----	RATHNASKILLOGE	Cist
WA025-053----	RATHQUAGE	Ringfort - rath
WA025-055----	RATHQUAGE	Ringfort - rath
WA025-054----	RATHQUAGE	Ringfort - rath
WA005-057----	REANADAMPAUN COMMONS (Decies without Drum By.)	Standing stone
WA013-007----	REANADAMPAUN COMMONS (Glenahiry By.), REANADAMPAUN COMMONS (Decies without Drum By.)	Stone row
WA003-033----	REATAGH	Burnt mound
WA004-023----	REATAGH	Bullaun stone
WA017-046001-	REISK	Church
WA017-046002-	REISK	Graveyard
WA017-046003-	REISK	Font
WA037-046----	RINCREW	Souterrain
WA037-045----	RINCREW	Souterrain
WA037-025----	RINCREW	Religious house - Knights Templars
WA031-050----	RINGAPHUCA	Burial ground
WA029-012----	RIVER BLACKWATER	Ford
WA037-012----	RIVER BLACKWATER	Weir - fish
WA007-079----	ROBERTSTOWN (Decies without Drum By., Rossduff Par.)	Settlement cluster

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA015-014----	ROBERTSTOWN (Decies without Drum By., Rossduff Par.)	Enclosure
WA015-015----	ROBERTSTOWN (Decies without Drum By., Rossduff Par.)	Enclosure
WA015-016----	ROBERTSTOWN (Decies without Drum By., Rossduff Par.)	Ringfort - unclassified
WA038-033001-	RODEEN	Ringfort - unclassified
WA038-033002-	RODEEN	Burial ground
WA016-021----	ROSS (Middlethird By.)	Castle - unclassified
WA016-022----	ROSS (Middlethird By.)	Standing stone
WA006-043----	ROSS (Upperthird By.)	Settlement cluster
WA006-044001-	ROSS (Upperthird By.)	Cairn - unclassified
WA006-044002-	ROSS (Upperthird By.)	Standing stone
WA007-058----	ROSS (Upperthird By.)	Burial ground
WA007-018----	ROSS (Upperthird By.)	Enclosure
WA001-021----	RUSSELLSTOWN	Ringfort - unclassified
WA001-035----	RUSSELLSTOWN	Castle - unclassified
WA021-012----	SALTERBRIDGE	House - 18th/19th century
WA021-033----	SALTERBRIDGE	Mine
WA029-074----	SAPPERTON NORTH	House - 17th century
WA025-006----	SAVAGETOWN	Standing stone
WA025-022----	SAVAGETOWN	Megalithic tomb - portal tomb
WA034-058----	SCART (Coshmore and Coshbride By., Kilcockan Par.)	House - 17th century
WA022-026003-	SCART (Sergeant)	Graveslab
WA022-026002-	SCART (Sergeant)	Graveyard
WA022-025----	SCART (Sergeant)	Ringfort - unclassified
WA022-026001-	SCART (Sergeant)	Church
WA002-074----	SCARTLEA	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA002-018----	SCARTLEA	Enclosure
WA002-017003-	SCARTLEA	Souterrain
WA002-017001-	SCARTLEA	Enclosure
WA002-016----	SCARTLEA	Enclosure
WA002-017002-	SCARTLEA	Ringfort - rath
WA014-009002-	SCARTNADRINYMOUNTAIN	Kerb circle
WA014-006----	SCARTNADRINYMOUNTAIN	Ringfort - rath
WA014-008----	SCARTNADRINYMOUNTAIN	Field boundary
WA014-009004-	SCARTNADRINYMOUNTAIN	Field boundary
WA014-034----	SCARTNADRINYMOUNTAIN	Hut site
WA014-009001-	SCARTNADRINYMOUNTAIN	Cairn - ring-cairn
WA014-033001-	SCARTNADRINYMOUNTAIN	Barrow - ring-barrow
WA014-007001-	SCARTNADRINYMOUNTAIN	Ringfort - rath
WA014-005----	SCARTNADRINYMOUNTAIN	Ringfort - rath
WA014-007002-	SCARTNADRINYMOUNTAIN	Souterrain
WA014-009003-	SCARTNADRINYMOUNTAIN	Cairn - unclassified
WA014-062----	SCARTNADRINYMOUNTAIN	Standing stone
WA014-009005-	SCARTNADRINYMOUNTAIN	Cist
WA015-103----	SCRAHAN	Fulacht fia
WA024-040----	SEAFIELD	Ringfort - rath
WA024-054----	SEAFIELD	Ringfort - rath
WA024-121----	SEAFIELD	Fulacht fia
WA036-008003-	SEANCHLUAIN	Headstone
WA036-008001-	SEANCHLUAIN	Church
WA036-008002-	SEANCHLUAIN	Graveyard
WA011-003002-	SEEMOCHUDA	Ogham stone
WA011-003001-	SEEMOCHUDA	Ogham stone
WA011-003005-	SEEMOCHUDA	Cross

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA011-003003-	SEEMOCHUDA	Ogham stone
WA011-003004-	SEEMOCHUDA	Leacht
WA016-086----	SHANACLONE	Standing stone
WA025-008----	SHANACLONE	Enclosure
WA025-115002-	SHANACLONE	Burnt mound
WA025-115001-	SHANACLONE	Burnt mound
WA025-118----	SHANACLONE	Kerb circle
WA037-052----	SHANACOOLE	Standing stone
WA037-057----	SHANACOOLE	Burnt mound
WA037-053----	SHANACOOLE	Kiln
WA037-056----	SHANACOOLE	Burnt mound
WA034-009----	SHANAKILL (Decies within Drum By., Aglish Par.)	Hilltop enclosure
WA034-052----	SHANAKILL (Decies within Drum By., Aglish Par.)	House - 17th century
WA034-051----	SHANAKILL (Decies within Drum By., Aglish Par.)	Church
WA015-058----	SHANAKILL (Decies without Drum By., Rossduff Par.)	Ringfort - rath
WA024-026----	SHANAKILL (Decies without Drum By., Rossduff Par.)	Ringfort - unclassified
WA024-028----	SHANAKILL (Decies without Drum By., Rossduff Par.)	Ritual site - holy well
WA015-110----	SHANAKILL (Decies without Drum By., Rossduff Par.)	Burnt mound
WA015-109----	SHANAKILL (Decies without Drum By., Rossduff Par.)	Burnt mound
WA007-002----	SHANAKILL (Upperthird By., Rathgormuck Par.)	Enclosure
WA007-004----	SHANAKILL (Upperthird By., Rathgormuck Par.)	Ringfort - unclassified
WA007-015----	SHANAKILL (Upperthird By., Rathgormuck Par.)	Ringfort - rath
WA023-030002-	SHANBALLY (Decies without Drum By.)	Bullaun stone
WA023-031----	SHANBALLY (Decies without Drum By.)	Church
WA023-030003-	SHANBALLY (Decies without Drum By.)	Church
WA023-031001-	SHANBALLY (Decies without Drum By.)	Bullaun stone
WA031-041----	SHANDON	Church
WA031-070----	SHANDON	Burial ground

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA031-072----	SHANDON	Enclosure
WA031-073----	SHANDON	Metalworking site
WA028-005----	SHEAN MORE	Ringfort - rath
WA028-001----	SHEAN MORE	Castle - tower house
WA028-001001-	SHEAN MORE	Bawn
WA032-008----	SHESKIN (Decies without Drum By., Stradbally Par.)	Standing stone
WA003-023----	SHESKIN (Upperthird By.)	Megalithic tomb - portal tomb
WA003-067----	SHESKIN (Upperthird By.)	House - 17th century
WA003-086001-	SHESKIN (Upperthird By.)	Standing stone - pair
WA003-086003-	SHESKIN (Upperthird By.)	Field boundary
WA003-088001-	SHESKIN (Upperthird By.)	Enclosure
WA003-088003-	SHESKIN (Upperthird By.)	Field boundary
WA003-088002-	SHESKIN (Upperthird By.)	Standing stone
WA003-103----	SHESKIN (Upperthird By.)	Megalithic tomb - unclassified
WA005-034----	SILLAHEENS	House - 17th century
WA005-045----	SILLAHEENS	Burnt mound
WA009-020----	SKIBBEREEN	Excavation - miscellaneous
WA022-017----	SLEADYCASTLE	House - 17th century
WA025-117----	SLEVEEN (Decies without Drum By.)	Church
WA016-096----	SMOOR BEG, SMOOR MORE	Church
WA029-060----	SNUGBOROUGH	House - 17th century
WA029-059----	SNUGBOROUGH	House - 17th century
WA001-030----	SPA	Spa works/bath
WA017-029----	SPORTHOUSE	Enclosure
WA017-031----	SPORTHOUSE	Enclosure
WA031-074----	SPRING (Duke)	Rock scribing - folk art
WA031-076----	SPRING (Duke)	Standing stone (present location)
WA031-075----	SPRING (Duke)	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA028-044----	SPRINGFIELD (Coshmore and Coshbride By.)	House - 17th century
WA008-040----	STONEHOUSE	Weir - fish
WA008-038----	STONEHOUSE	Castle - unclassified
WA008-039----	STONEHOUSE	House - 17th century
WA024-058----	STRADBALLY MORE	Standing stone
WA024-061001-	STRADBALLY MORE	Ritual site - holy well
WA032-012----	STRADBALLY MORE	Settlement cluster
WA024-061002-	STRADBALLY MORE	Ogham stone
WA024-061003-	STRADBALLY MORE	Ogham stone
WA032-011----	STRADBALLY MORE	Ringfort - unclassified
WA032-012001-	STRADBALLY MORE	Church
WA032-013----	STRADBALLY MORE	Promontory fort - coastal
WA032-012002-	STRADBALLY MORE	Graveyard
WA032-012003-	STRADBALLY MORE	Graveslab
WA032-012004-	STRADBALLY MORE	Kiln
WA032-038----	STRADBALLY MORE, WOODHOUSE (Decies without Drum By., Stradbally Par.)	Inscribed stone
WA034-063----	STRANCALLY	Weir - fish
WA034-064----	STRANCALLY	House - 17th century
WA034-061----	STRANCALLY	House - 17th century
WA034-034001-	STRANCALLY	Castle - hall-house
WA034-034----	STRANCALLY	Castle - tower house
WA034-034002-	STRANCALLY	Bawn
WA034-045----	STRANCALLY DEMESNE	House - 17th century
WA027-026----	SUMMERVILLE	House - 17th century
WA028-015002-	TALLOW	Graveslab
WA028-015003-	TALLOW	Forge
WA028-015005-	TALLOW	Sheela-na-gig

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA028-015001-	TALLOW	Church
WA028-015004-	TALLOW	Market-house
WA028-015006-	TALLOW	Inscribed stone
WA028-015007-	TALLOW	Graveyard
WA028-015----	TALLOW, TOWNPARKS EAST (Coshmore and Coshbride By., Tallow Par.),TOWNPARKS WEST (Coshmore and Coshbride By., Tallow Par.)	Historic town
WA028-022----	TALLOWBRIDGE LANDS	Metalworking site
WA025-131----	TANKARDSTOWN	Promontory fort - coastal
WA025-133----	TANKARDSTOWN	Enclosure
WA025-132----	TANKARDSTOWN	Promontory fort - coastal
WA037-013004-	TEMPLEMICHAEL	Building
WA037-014002-	TEMPLEMICHAEL	Bawn
WA037-013002-	TEMPLEMICHAEL	Graveyard
WA037-014001-	TEMPLEMICHAEL	Castle - tower house
WA037-013003-	TEMPLEMICHAEL	Ritual site - holy well
WA037-013001-	TEMPLEMICHAEL	Church
WA024-093----	TEMPLEYVRICK	House - 17th century
WA024-069----	TEMPLEYVRICK	Burial ground
WA024-070----	TEMPLEYVRICK	Church
WA024-123----	TEMPLEYVRICK	Promontory fort - coastal
WA024-093001-	TEMPLEYVRICK	Settlement deserted - medieval
WA008-017----	TIGROE	Ringfort - rath
WA008-017001-	TIGROE	Souterrain
WA002-052----	TIKINCOR LOWER	Weir - fish
WA002-051002-	TIKINCOR LOWER	House - 17th century
WA002-081----	TIKINCOR LOWER	Enclosure
WA002-002----	TIKINCOR LOWER	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA002-001----	TIKINCOR LOWER	Bridge
WA002-053----	TIKINCOR UPPER	Enclosure
WA022-007----	TINALIRA	Ringfort - unclassified
WA022-010----	TINALIRA	Ringfort - unclassified
WA022-009----	TINALIRA	Ringfort - unclassified
WA004-005001-	TINHALLA	Font
WA004-013----	TINHALLA	Burnt mound
WA004-014----	TINHALLA	Burnt mound
WA004-022----	TINHALLA	Burnt mound
WA004-005----	TINHALLA	Church
WA003-063----	TINHALLA	House - 17th century
WA037-026----	TINNABINNA	Ringfort - rath
WA037-026002-	TINNABINNA	Enclosure
WA038-017----	TINNALYRA	Ritual site - holy well
WA038-016----	TINNALYRA	Ringfort - rath
WA038-015----	TINNALYRA	Ringfort - rath
WA034-059----	TINNASCART	Church
WA034-010----	TINNASCART	Enclosure
WA034-013----	TINNASCART	Ringfort - rath
WA034-014----	TINNASCART	Enclosure
WA028-016----	TIRCULLEN UPPER	Earthwork
WA028-002001-	TOBER	Ringfort - rath
WA028-002002-	TOBER	Altar
WA028-002003-	TOBER	Ritual site - holy well
WA028-002004-	TOBER	Children's burial ground
WA019-001----	TOBERNAHULLA	Ritual site - holy well
WA002-071----	TOOR (Upperthird By.)	Burnt mound
WA002-072----	TOOR (Upperthird By.)	Burnt mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA002-073----	TOOR (Upperthird By.)	Burnt mound
WA002-013----	TOOR (Upperthird By.)	Ringfort - rath
WA035-005----	TOOR NORTH	Enclosure
WA005-012----	TOORACURRAGH	Ogham stone (present location)
WA005-014002-	TOORACURRAGH	Ecclesiastical enclosure
WA005-013----	TOORACURRAGH	Enclosure
WA005-014001-	TOORACURRAGH	Church
WA005-014003-	TOORACURRAGH	Ogham stone
WA005-018----	TOORALA	Ringfort - rath
WA012-005----	TOORANARAHEEN	Linear earthwork
WA013-051----	TOORANEENA	Standing stone
WA013-048001-	TOORANEENA	Enclosure
WA013-048002-	TOORANEENA	Standing stone
WA013-012001-	TOORANEENA	Ringfort - rath
WA013-012002-	TOORANEENA	Souterrain
WA013-013----	TOORANEENA	Ringfort - rath
WA006-022002-	TOOREEN EAST	Stone row
WA006-050----	TOOREEN EAST	Fulacht fia
WA006-051----	TOOREEN EAST	Fulacht fia
WA006-022003-	TOOREEN EAST	Standing stone
WA006-026----	TOOREEN EAST	Enclosure
WA006-027----	TOOREEN EAST	Barrow - ring-barrow
WA006-022001-	TOOREEN EAST	Barrow - ring-barrow
WA006-024001-	TOOREEN EAST	Kerb circle
WA006-025----	TOOREEN EAST	Fulacht fia
WA006-022004-	TOOREEN EAST	Cist
WA006-022005-	TOOREEN EAST	Standing stone
WA006-022006-	TOOREEN EAST	Standing stone

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA006-023001-	TOOREEN WEST	Stone row
WA014-043----	TOOREENMOUNTAIN	Cairn - unclassified
WA005-029----	TOORREAGH	Ringfort - rath
WA013-047----	TOORREAGH	Burnt mound
WA013-001----	TOORREAGH	Ringfort - unclassified
WA029-078----	TOURIN DEMESNE	Enclosure
WA029-070----	TOURIN DEMESNE	Weir - fish
WA029-010----	TOURIN DEMESNE	Castle - tower house
WA017-055----	TOWERGARE	Ringfort - unclassified
WA017-099----	TOWERGARE	House - 17th century
WA017-087----	TOWERGARE	Settlement cluster
WA028-014----	TOWNPARKS EAST (Coshmore and Coshbride By., Tallow Par.), TALLOWBRIDGE LANDS	Bridge
WA028-011----	TOWNPARKS WEST (Coshmore and Coshbride By., Lismore Par.)	Ringfort - unclassified
WA028-024----	TOWNPARKS WEST (Coshmore and Coshbride By., Tallow Par.)	Mill - unclassified
WA028-025----	TOWNPARKS WEST (Coshmore and Coshbride By., Tallow Par.)	Forge
WA026-030----	TRAMORE BURROW	Burial ground
WA026-066----	TRAMORE BURROW	Midden
WA026-086----	TRAMORE BURROW	Midden
WA026-092----	TRAMORE BURROW	Midden
WA026-093----	TRAMORE BURROW	Midden
WA026-079----	TRAMORE WEST	Standing stone
WA023-074----	TREENEARLA COMMONS	House - indeterminate date
WA023-071----	TREENEARLA COMMONS	House - indeterminate date
WA023-072----	TREENEARLA COMMONS	Cairn - unclassified

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA023-067----	TREENEARLA COMMONS	Cairn - unclassified
WA021-017----	TURBEHA	Enclosure
WA021-018----	TURBEHA	Burial ground
WA015-075----	Unknown	Fulacht fia
WA036-019002-	Unknown	Hearth
WA036-019001-	Unknown	Urn burial
WA040-020----	Unknown	Fulacht fia
WA009-005038-	WATERFORD CITY	House - 17th century
WA009-005042-	WATERFORD CITY	House - medieval
WA009-005043-	WATERFORD CITY	House - medieval
WA009-005051-	WATERFORD CITY	House - medieval
WA009-005052-	WATERFORD CITY	House - medieval
WA009-005039-	WATERFORD CITY	House - 16th/17th century
WA009-005041-	WATERFORD CITY	House - 16th century
WA009-005040-	WATERFORD CITY	Ecclesiastical residence
WA009-005047-	WATERFORD CITY	House - medieval
WA009-005050-	WATERFORD CITY	Bastioned fort
WA009-005045-	WATERFORD CITY	House - medieval
WA009-005048-	WATERFORD CITY	Bastioned fort
WA009-005049-	WATERFORD CITY	Blockhouse
WA009-005044-	WATERFORD CITY	Habitation site
WA009-005046-	WATERFORD CITY	House - medieval
WA009-005029-	WATERFORD CITY	Religious house - Augustinian canons
WA009-005026-	WATERFORD CITY	Church
WA009-005027-	WATERFORD CITY	Church
WA009-005035-	WATERFORD CITY	Leper hospital
WA009-005025-	WATERFORD CITY	Church
WA009-005028-	WATERFORD CITY	Church

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-005036-	WATERFORD CITY	Hospital
WA009-005031-	WATERFORD CITY	Religious house - Dominican friars
WA009-005032-	WATERFORD CITY	Religious house - Franciscan friars
WA009-005023-	WATERFORD CITY	Church
WA009-005024-	WATERFORD CITY	Church
WA009-005030-	WATERFORD CITY	Religious house - Benedictine monks
WA009-005037-	WATERFORD CITY	House - 16th/17th century
WA009-005033-	WATERFORD CITY	Hospital
WA009-005034-	WATERFORD CITY	Hospital
WA009-005055-	WATERFORD CITY	House - medieval
WA009-005058-	WATERFORD CITY	House - medieval
WA009-005059-	WATERFORD CITY	House - medieval
WA009-005061-	WATERFORD CITY	Habitation site
WA009-005053-	WATERFORD CITY	House - medieval
WA009-005054-	WATERFORD CITY	House - medieval
WA009-005056-	WATERFORD CITY	House - medieval
WA009-005057-	WATERFORD CITY	House - medieval
WA009-005060-	WATERFORD CITY	Excavation - miscellaneous
WA009-005002-	WATERFORD CITY	Town defences
WA009-005021-	WATERFORD CITY	Church
WA009-005022-	WATERFORD CITY	Church
WA009-005017-	WATERFORD CITY	Bridge
WA009-005020-	WATERFORD CITY	Cathedral
WA009-005001-	WATERFORD CITY	Castle - Anglo-Norman masonry castle
WA009-005078-	WATERFORD CITY	Graveslab
WA009-005085-	WATERFORD CITY	Graveslab
WA009-005088-	WATERFORD CITY	Graveslab
WA009-005089-	WATERFORD CITY	Graveslab

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-005093-	WATERFORD CITY	Graveslab
WA009-005094-	WATERFORD CITY	Graveslab
WA009-005103-	WATERFORD CITY	Tomb - effigial
WA009-005104-	WATERFORD CITY	Tomb - effigial
WA009-005108-	WATERFORD CITY	Armorial plaque
WA009-005109-	WATERFORD CITY	Graveslab
WA009-005115-	WATERFORD CITY	Graveslab
WA009-018----	WATERFORD CITY	Standing stone
WA009-005068-	WATERFORD CITY	Excavation - miscellaneous
WA009-005081-	WATERFORD CITY	Graveslab
WA009-005083-	WATERFORD CITY	Graveslab
WA009-005069-	WATERFORD CITY	Tannery
WA009-005084-	WATERFORD CITY	Graveslab
WA009-005086-	WATERFORD CITY	Graveslab
WA009-005090-	WATERFORD CITY	Graveslab
WA009-005097-	WATERFORD CITY	Graveslab
WA009-005107-	WATERFORD CITY	Tomb - effigial
WA009-005110-	WATERFORD CITY	Graveslab
WA009-005111-	WATERFORD CITY	Graveslab
WA009-005112-	WATERFORD CITY	Stone sculpture
WA009-005116-	WATERFORD CITY	Tomb - effigial
WA009-005070-	WATERFORD CITY	Building
WA009-005079-	WATERFORD CITY	Graveslab
WA009-005080-	WATERFORD CITY	Graveslab
WA009-005091-	WATERFORD CITY	Graveslab
WA009-005092-	WATERFORD CITY	Graveslab
WA009-005095-	WATERFORD CITY	Graveslab
WA009-005096-	WATERFORD CITY	Graveslab

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-005100-	WATERFORD CITY	Graveyard
WA009-005101-	WATERFORD CITY	Tomb - effigial
WA009-005102-	WATERFORD CITY	Tomb - effigial
WA009-005105-	WATERFORD CITY	Tomb - chest tomb
WA009-005114-	WATERFORD CITY	Graveslab
WA009-005123-	WATERFORD CITY	Burial ground
WA009-005065-	WATERFORD CITY	Linear earthwork
WA009-005066-	WATERFORD CITY	House - medieval
WA009-005077-	WATERFORD CITY	Graveslab
WA009-005082-	WATERFORD CITY	Graveslab
WA009-005087-	WATERFORD CITY	Graveslab
WA009-005099-	WATERFORD CITY	Armorial plaque
WA009-005063-	WATERFORD CITY	Tannery
WA009-005064-	WATERFORD CITY	House - medieval
WA009-005071-	WATERFORD CITY	Graveyard
WA009-005072-	WATERFORD CITY	Graveyard
WA009-005076-	WATERFORD CITY	Graveslab
WA009-005067-	WATERFORD CITY	House - medieval
WA009-005126-	WATERFORD CITY	Kiln
WA009-005113-	WATERFORD CITY	Graveslab
WA009-005124-	WATERFORD CITY	House - medieval
WA009-005106-	WATERFORD CITY	Tomb - effigial
WA009-005117-	WATERFORD CITY	Graveslab (present location)
WA009-005120-	WATERFORD CITY	Burial
WA009-005118-	WATERFORD CITY	Graveyard
WA009-005119-	WATERFORD CITY	Graveyard
WA009-005073-	WATERFORD CITY	Ritual site - holy well
WA009-005074-	WATERFORD CITY	Cross

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-005127-	WATERFORD CITY	Armorial plaque (present location)
WA009-005128-	WATERFORD CITY	Armorial plaque (present location)
WA009-005129-	WATERFORD CITY	Armorial plaque (present location)
WA009-005130-	WATERFORD CITY	Excavation - miscellaneous
WA009-005125-	WATERFORD CITY	Building
WA009-005075-	WATERFORD CITY	Graveyard
WA009-005132-	WATERFORD CITY	Burial
WA009-005131-	WATERFORD CITY	House - 17th century
WA009-005133-	WATERFORD CITY	Battlefield
WA009-005134-	WATERFORD CITY	Stone sculpture
WA009-005136-	WATERFORD CITY	House - medieval
WA009-005----	WATERFORD CITY, TRINITY WITHOUT	Historic town
WA026-041001-	WEST-TOWN	Promontory fort - coastal
WA026-041002-	WEST-TOWN	House - indeterminate date
WA026-091----	WEST-TOWN	Promontory fort - coastal
WA025-103----	WHITEFIELD	Settlement cluster
WA001-023----	WHITESFORT	Enclosure
WA001-039----	WHITESFORT	Settlement cluster
WA015-053----	WHITESTOWN	Earthwork
WA015-054----	WHITESTOWN	Ringfort - unclassified
WA015-055----	WHITESTOWN	Enclosure
WA016-132----	WHITESTOWN	Burnt mound
WA016-133----	WHITESTOWN	Burnt mound
WA016-131----	WHITESTOWN	Burnt mound
WA007-024----	WHITESTOWN EAST	Megalithic tomb - portal tomb
WA008-056----	WHITESTOWN EAST	Ring-ditch
WA007-022----	WHITESTOWN WEST	Architectural fragment
WA007-067----	WHITESTOWN WEST	House - 17th century

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA015-057----	WHITESTOWN, KILMOYLIN	Enclosure
WA017-006----	WHITFIELD NORTH	Standing stone
WA017-067----	WHITFIELD NORTH	Castle - unclassified
WA017-103----	WHITFIELD NORTH, WHITFIELD SOUTH	Souterrain
WA017-121----	WILLIAMSTOWN (Gaultiere By.)	Ringfort - rath
WA017-121001-	WILLIAMSTOWN (Gaultiere By.)	Excavation - miscellaneous
WA017-145----	WILLIAMSTOWN (Gaultiere By.)	Burnt pit
WA003-007001-	WINDGAP OR ARDMORE	Ringfort - rath
WA003-007005-	WINDGAP OR ARDMORE	Souterrain
WA003-007002-	WINDGAP OR ARDMORE	Church
WA003-007003-	WINDGAP OR ARDMORE	Ogham stone
WA003-007004-	WINDGAP OR ARDMORE	Ogham stone
WA032-030----	WOODHOUSE (Decies without Drum By., Stradbally Par.)	Mill - unclassified
WA032-039----	WOODHOUSE (Decies without Drum By., Stradbally Par.)	Souterrain
WA032-010----	WOODHOUSE (Decies without Drum By., Stradbally Par.)	House - 16th/17th century
WA032-040----	WOODHOUSE (Decies without Drum By., Stradbally Par.)	Enclosure
WA032-042----	WOODHOUSE (Decies without Drum By., Stradbally Par.)	Bridge
WA030-053----	WOODHOUSE OR TINAKILLY	Ritual site - holy well
WA029-034----	WOODSTOCK	Ringfort - rath
WA025-072----	WOODSTOWN (Middlethird By., Islandikane Par.)	Promontory fort - coastal
WA025-122----	WOODSTOWN (Middlethird By., Islandikane Par.)	Fulacht fia
WA025-071----	WOODSTOWN (Middlethird By., Islandikane Par.)	Standing stone
WA025-121----	WOODSTOWN (Middlethird By., Islandikane Par.)	Standing stone
WA009-009----	WOODSTOWN (Middlethird By., Killoteran Par.)	Mound

SMR NUMBER	TOWNLAND NAME	CLASSIFICATION
WA009-006----	WOODSTOWN (Middlethird By., Killoteran Par.)	Enclosure
WA009-023----	WOODSTOWN (Middlethird By., Killoteran Par.)	Fulacht fia
WA009-019----	WOODSTOWN (Middlethird By., Killoteran Par.)	Enclosure
WA009-024----	WOODSTOWN (Middlethird By., Killoteran Par.)	Hearth
WA009-038----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA009-040----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA009-019001-	WOODSTOWN (Middlethird By., Killoteran Par.)	Burial
WA009-019002-	WOODSTOWN (Middlethird By., Killoteran Par.)	Kiln
WA009-043----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA009-035----	WOODSTOWN (Middlethird By., Killoteran Par.)	Fulacht fia
WA009-006003-	WOODSTOWN (Middlethird By., Killoteran Par.)	Enclosure
WA009-041----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA009-042----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA009-019003-	WOODSTOWN (Middlethird By., Killoteran Par.)	Structure
WA017-134----	WOODSTOWN (Middlethird By., Killoteran Par.)	Pit-burial
WA009-039----	WOODSTOWN (Middlethird By., Killoteran Par.)	Excavation - miscellaneous
WA018-056002-	WOODSTOWN LOWER, WOODSTOWN UPPER	House - 17th century
WA018-029001-	WOODSTOWN UPPER	Enclosure
WA018-030----	WOODSTOWN UPPER	Enclosure
WA018-056001-	WOODSTOWN UPPER, WOODSTOWN LOWER	Church