

Appendix 14

Infrastructure 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 to 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 25,000m³ 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
<i>East Waterford Water Supply Scheme (EWWSS)</i>	<i>East Waterford Water Supply Scheme</i>	All sites subject to connection agreement with Irish Water (in line with existing practice).
No infrastructural projects identified.	Irish Water has undertaken to investigate a possible extension of water supply to Portlaw and Kilmacthomas from EWWSS.	
<i>West Waterford Regional Supply Scheme</i>	<i>West Waterford Regional Supply Scheme</i>	
No infrastructural projects identified.	N/A	

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
<p><i>Belview Wastewater Treatment Plant</i></p> <p>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.</p>	<p><i>Belview Wastewater Treatment Plant</i></p> <p>Review will be carried out in the short to medium term (Source: Irish Water).</p>	<p>All sites subject to connection agreement with Irish Water (in line with existing practice).</p>

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
<p><i>BusConnects Waterford</i></p> <ul style="list-style-type: none"> • 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. <p><i>Rail</i></p> <ul style="list-style-type: none"> • Enhanced Commuter/ freight Rail Network infrastructure and service frequency. <p><i>Airport</i></p> <ul style="list-style-type: none"> • Runway extension and ancillary development to facilitate use of the airport by larger aircraft. <p><i>Port</i></p> <ul style="list-style-type: none"> • Improved access to Waterford Port. 	<p><i>Bus Connects</i></p> <ul style="list-style-type: none"> • 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) <p><i>Rail</i></p> <ul style="list-style-type: none"> • The Strategic Rail Review/ Irish Rail (CIE)/ MASP Implementation. <p><i>Airport</i></p> <ul style="list-style-type: none"> • Waterford Airport/ MASP Implementation. <p><i>Port</i></p> <ul style="list-style-type: none"> • Waterford Port Company/ MASP Implementation. <p>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.</p>	<p>Subject to assessment on a site-by-site basis.</p>

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.

Area	Phasing / Enabling Infrastructure
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. <p>Delivery timeframe: short to medium term.</p> <ul style="list-style-type: none"> • 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. <p>Delivery timeframe: Medium term to long term.</p> <ul style="list-style-type: none"> • Specific infrastructural requirements for individual sites are

<p>the development plan.</p> <ul style="list-style-type: none"> • Associated enabling infrastructure for Employment Areas. 	<p>unknown until DAPs are complete.</p> <ul style="list-style-type: none"> • Below are listed the areas that need urgent attention with Waterford City area: <ul style="list-style-type: none"> • Upgrade 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. <p>Employment Enabling Infrastructure</p> <ul style="list-style-type: none"> • 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
<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> • 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. <p><i>Transport</i></p> <ul style="list-style-type: none"> • 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. 	<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> • Irish Water are progressing the Dungarvan DAP. • Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. <p><i>Transport</i></p> <ul style="list-style-type: none"> • 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.

Infrastructure	Project Delivery	Zoning Tier
<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> 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. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> Irish Water are progressing the Tramore DAP. Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p>Tier 1 and Tier 2 - as applicable at a local level.</p>

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
<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> 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. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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). 	<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p>Tier 1 as applicable at a local level.</p>

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.

Infrastructure	Project Delivery	Zoning Tier
<p><i>Water</i></p> <ul style="list-style-type: none"> 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. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p><i>Water</i></p> <ul style="list-style-type: none"> 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. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p>Tier 2¹ as applicable at a local level.</p>

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
<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> Water storage capacity is low with high leakage locally. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p><i>Water and Waste Water</i></p> <ul style="list-style-type: none"> Dependent on inclusion in the Irish Water Investment Plan or may be developer-led. <p><i>Transport</i></p> <ul style="list-style-type: none"> 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. 	<p>Tier 1 as applicable at a local level.</p>

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
<i>Water and Waste Water</i> No issues raised.	<i>Water and Waste Water</i> <ul style="list-style-type: none">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.