

APPROPRIATE ASSESSMENT

DRAFT NATURA IMPACT REPORT | OCTOBER 2017

As part of the preparation of the Draft Planning
Scheme for the Waterford North Quays Strategic
Development Zone (S.I. No. 30 of 2016)

North Quays Strategic Development Zone - Draft Planning Scheme

Appropriate Assessment - Draft Natura Impact Report

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1.0 INTRODUCTION

1.1 Background

This Appropriate Assessment (AA) Draft Natura Impact Report (NIR) was prepared by Roughan & O'Donovan (ROD) on behalf of Waterford City & County Council. It assesses the implications of the Draft Planning Scheme for the North Quays Strategic Development Zone (SDZ) (as provided in Appendix A), hereafter referred to as “the Draft Planning Scheme”, for sites of European importance for nature conservation, i.e. Natura 2000 sites. This Draft NIR is published alongside the Strategic Environmental Assessment (SEA) Draft Environmental Report (ER) for the Draft Planning Scheme.

The preparation of the Draft Planning Scheme has regard to Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive). Article 3(2) of the SEA Directive stipulates that, if a plan is likely to impact upon a European site protected by Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive), i.e. a Natura 2000 site, SEA must be conducted.

The preparation of the Draft Planning Scheme also has regard to the Habitats Directive. Article 6(3) and (4) of the Habitats Directive establishes the requirement for an assessment of plans and projects likely to have a significant effect on Natura 2000 sites. Article 6(3) establishes the requirement to screen all plans and projects for the likelihood of such effects and, where they cannot be ruled out, to undertake AA. This requirement is transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations, 2011-2015 (the Habitats Regulations) and Part XAB of the Planning and Development Acts, 2000-2015. This requires Waterford City & County Council, as the competent authority in this case, to screen for and, if necessary, undertake an AA in respect of the Draft Planning Scheme.

The Draft Planning Scheme is neither connected to nor necessary for the management of any Natura 2000 site. However, the North Quays SDZ is located adjacent to the Lower River Suir Special Area of Conservation (SAC). AA Screening was carried out to assess the likelihood of significant effects on this and other Natura 2000 sites as a result of the Draft Planning Scheme.

The purpose of this Draft NIR is to provide an examination, analysis and evaluation of the implications of the Draft Planning Scheme for Natura 2000 sites and to present complete, precise and definitive findings and a final determination in respect of the same in order to inform and assist Waterford City & County Council, as the competent authority, in carrying out its AA. This Draft NIR intends to ascertain, in view of best scientific knowledge, whether or not the Draft Planning Scheme, either alone or in combination with other plans and projects, will adversely affect the integrity of one or more Natura 2000 sites in view of their Conservation Objectives. This Draft NIR is also intended to inform the SEA of the Draft Planning Scheme.

1.2 Legislative Context

Natura 2000 Sites

The Habitats Regulations transpose into Irish law the Habitats Directive and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive), collectively referred to as “the Nature Directives”, and lists natural habitats and species of Community importance

for conservation and requiring protection. This protection is afforded in part through the designation of sites that represent significant examples (in a European context) of habitats and populations of species listed in the Nature Directives. Sites selected for bird species are Special Protection Areas (SPAs) and sites selected for other protected species (Annex II of the Habitats Directive) and/or habitats (Annex I of the Habitats Directive) are Special Areas of Conservation (SACs). Together, SPAs and SACs comprise the Natura 2000 network of protected sites.

Bird species listed on Annex I of the Birds Directive (Special Conservation Interests) and habitats and/or species listed on Annexes I and II, respectively, of the Habitats Directive (Qualifying Interests) have full European protection in Natura 2000 sites. Species listed on Annex IV of the Habitats Directive are protected wherever they occur, whether inside or outside the Natura 2000 network. Annex I habitats that occur outside of SACs are still considered to be of national and international importance and, under Regulation 27(4)(b) of the Habitats Regulations, public authorities have a duty to avoid the pollution or deterioration of these habitats.

Appropriate Assessment

Article 6(3) and (4) of the Habitats Directive sets out the legal decision-making tests for plans or projects likely to affect Natura 2000 sites. Article 6(3) establishes the requirement to screen all plans and projects and, where significant effects cannot be excluded, to carry out a further assessment. Article 6(3) states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4) deals with alternative solutions and allows proposed plans and projects having adverse effects on Natura 2000 sites to be approved only in very limited circumstances, i.e. where there are imperative reasons of overriding public interest, no alternatives remain and compensatory measures can be taken.

The European Court of Justice (ECJ) has made a relevant ruling in relation to when AA is required and its purpose¹:

“Any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects [and the plan or project may only be authorised] where no reasonable scientific doubt remains as to the absence of such effects.”

The ECJ has also made a relevant ruling on what should be contained within an AA²:

“[The AA] cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.”

¹ Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v. Staatssecretaris van Landbouw, Natuurbeheer en Visserij (Waddenzee) [2004] C-127/02 ECR I-7405.

² Sweetman v. An Bord Pleanála [2013] Case C-258/11.

The Irish High Court has also considered the application of the Habitats Directive and has provided clarity on how competent authorities should undertake valid and lawful AA³, directing that the AA:

“Must identify, in the light of the best scientific knowledge in the field, all aspects of the development project which can, by itself or in combination with other plans or projects, affect the European site in the light of its conservation objectives. This clearly requires both examination and analysis.”

“Must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps. The requirement for precise and definitive findings and conclusions appears to require examination, analysis, evaluation and decisions. Further, the reference to findings and conclusions in a scientific context requires both findings following analysis and conclusions following an evaluation of each in the light of the best scientific knowledge in the field.”

“May only include a determination that the proposed development will not adversely affect the integrity of any relevant European site where, upon the basis of complete, precise and definitive findings and conclusions made, the consenting authority decides that no reasonable scientific doubt remains as to the absence of the identified potential effects.”

1.3 Stages of Appropriate Assessment

The Draft Planning Scheme is comprised of a Vision, defined by a set of Principal Goals, which are in turn supported by a suite of Specific Objectives that will govern the future sustainable development of the North Quays SDZ. The process of examining, analysing and assessing the implications of the Draft Planning Scheme for Natura 2000 sites is a structured exercise with a series of steps. The overall purpose of the process is to ensure that the Draft Planning Scheme, when implemented, does not result in adverse effects on the “integrity” of Natura 2000 sites.

Stage 1 of AA (Screening) involves assessing the Draft Planning Scheme in principle and determining the likelihood of significant effects on Natura 2000 sites as a result of its implementation, either individually or in combination with other plans or projects. If it is concluded on the basis of objective information that significant effects are likely or cannot be ruled out, full AA (Stage 2) is required.

Stage 2 of AA involves a scientific analysis of the potential impacts of the Draft Planning Scheme on the habitats and/or species for which the Natura 2000 sites “screened in” at Stage 1 are selected. Where significant or potentially significant impacts arising from the Draft Planning Scheme are identified, appropriate mitigation is prescribed to eliminate these impacts and ensure that there will be no adverse effect on the Natura 2000 sites concerned. This mitigation is then integrated into the Draft Planning Scheme so that its implementation will not result in any adverse effects on Natura 2000 sites.

³ Kelly v. An Bord Pleanála [2014] IEHC 422.

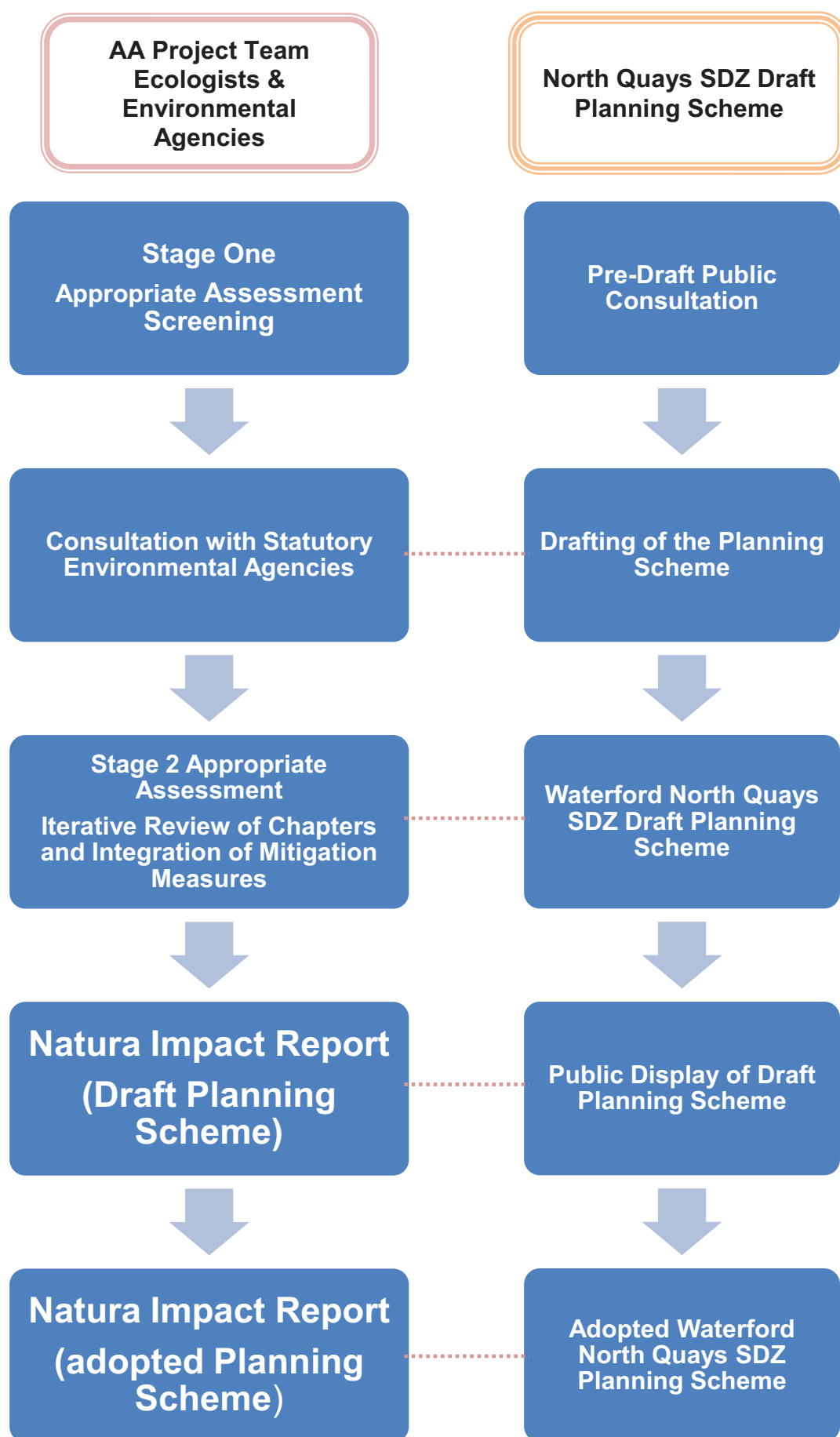


Figure 1.1 Appropriate Assessment for the Draft Planning Scheme

1.4 Guidance and Methodology

This Draft NIR has been prepared having regard to the following documents:

- *Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.* Environment Directorate-General of the European Commission, Brussels;
- *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provision of Article 6 (3) and (4) of the Habitats Directive 92/443/EEC.* Environment Directorate-General of the European Commission, Brussels;
- *Circular Letter SEA 1/08 & NPWS 1/08 Appropriate Assessment of Land Use Plans.* Department of the Environment, Heritage and Local Government, Dublin;
- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.* Department of the Environment, Heritage and Local Government, Dublin;
- *Habitats Regulations Appraisal of Plans: Guidance for Plan-Making Bodies in Scotland. Version 2.0.* Scottish Natural Heritage, Perth;
- *Habitats Regulations Appraisal (HRA) Advice Sheet: Screening general policies and applying simple mitigation measures.* Scottish Natural Heritage, Perth;
- *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence.* Opinion of the European Commission; and,
- *Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIS Processes: Practitioner's Manual.* Environmental Protection Agency, Wexford.

Stage 1 of AA was carried out to identify Natura 2000 sites within the likely zone of impact of the Draft Planning Scheme and to review the elements of the Draft Planning Scheme with the potential to impact on Natura 2000 sites. The "likely zone of impact" is the area over which changes could give rise to potentially significant impacts. This area is dependent on impact sources and pathways, as well as the specific sensitivities of ecological receptors (e.g. the ability to move/disperse or absorb impacts).

In accordance with the document *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DEHLG, 2010) a distance of 15km was used as a starting point for identifying potential impacts. It was found that this 15km distance was sufficient to capture all potentially significant impacts within the likely zone of impact of the Draft Planning Scheme.

Best practice in AA promotes a site-led approach. This approach gives precedence to the environmental conditions that maintain site integrity. The first steps are to identify the Natura 2000 sites within the likely zone of impact and collect information on the Special Conservation Interest and Qualifying Interests. The site-led approach focuses on maintaining site integrity by avoiding impacts on the key environmental conditions and allows issues such as cumulative impacts to be identified. The approach is summarised as follows:

1. *Which Natura 2000 sites lie within the Draft Planning Scheme area and its likely zone of impact?*

2. *What are the Qualifying Interests for each Natura 2000 site?*
3. *What are the underpinning ecological and environmental conditions required to maintain these Qualifying Interests at Favourable Conservation Status?*
4. *What are the threats, actual or potential, that could affect those underpinning factors?*
5. *Are there aspects of the Draft Planning Scheme that present these threats?*

A desk study was carried out on the identity, location and Conservation Objectives of all Natura 2000 sites within a 15km radius of the North Quays SDZ. The data relating to the sites were determined from information obtained from the statutory consultee, the National Parks & Wildlife Service (NPWS). Reference has been made to the following documents:

- Water Framework Directive;
- South Eastern River Basin Management Plan;
- The Planning System and Flood Risk Management – Guidelines for Planning Authorities;
- SEA ER for the Waterford City Development Plan 2013-2019;
- Waterford City Flood Alleviation Scheme; and,
- Natura Impact Statement for the Port of Waterford's proposed Dredging and Disposal Programme.

1.5 Relationship between AA and SEA

The SEA and AA of the Draft Planning Scheme were carried out concurrently. There were several areas of overlap and, in accordance with good practice, data on Natura 2000 sites and potential ecological constraints were shared with the SEA team. Iterative reviews of the Draft Planning Scheme were also sent to the SEA team for integration into their assessment (see Figure 1.1).

The findings of both processes are documented separately, taking into account their statutory implications. Information on the ecological impact of the Draft Planning Scheme gathered in the AA is carried forward to contribute to a comprehensive environmental baseline to inform the SEA. Information on the Qualifying Interests, conservation condition and Conservation Objectives of Natura 2000 sites is, therefore, also used to inform environmental assessment in the SEA. There were several pathways of information flow between the SEA and the AA (see Figure 1.2), including:

- Sharing data on Natura 2000 sites and potential sensitivities and threats, as well as baseline ecological data;
- Zoning maps were scrutinised by the AA team for potential impacts on Natura 2000 sites, but any other ecological impacts outside of the scope of the AA were also brought to the attention of the SEA team to be addressed in their environmental assessment; and,
- The SEA team brought potential interactions between other environmental risks related to the Draft Planning Scheme (e.g. water quality) and the sensitivities of Natura 2000 sites to the attention of the AA team.

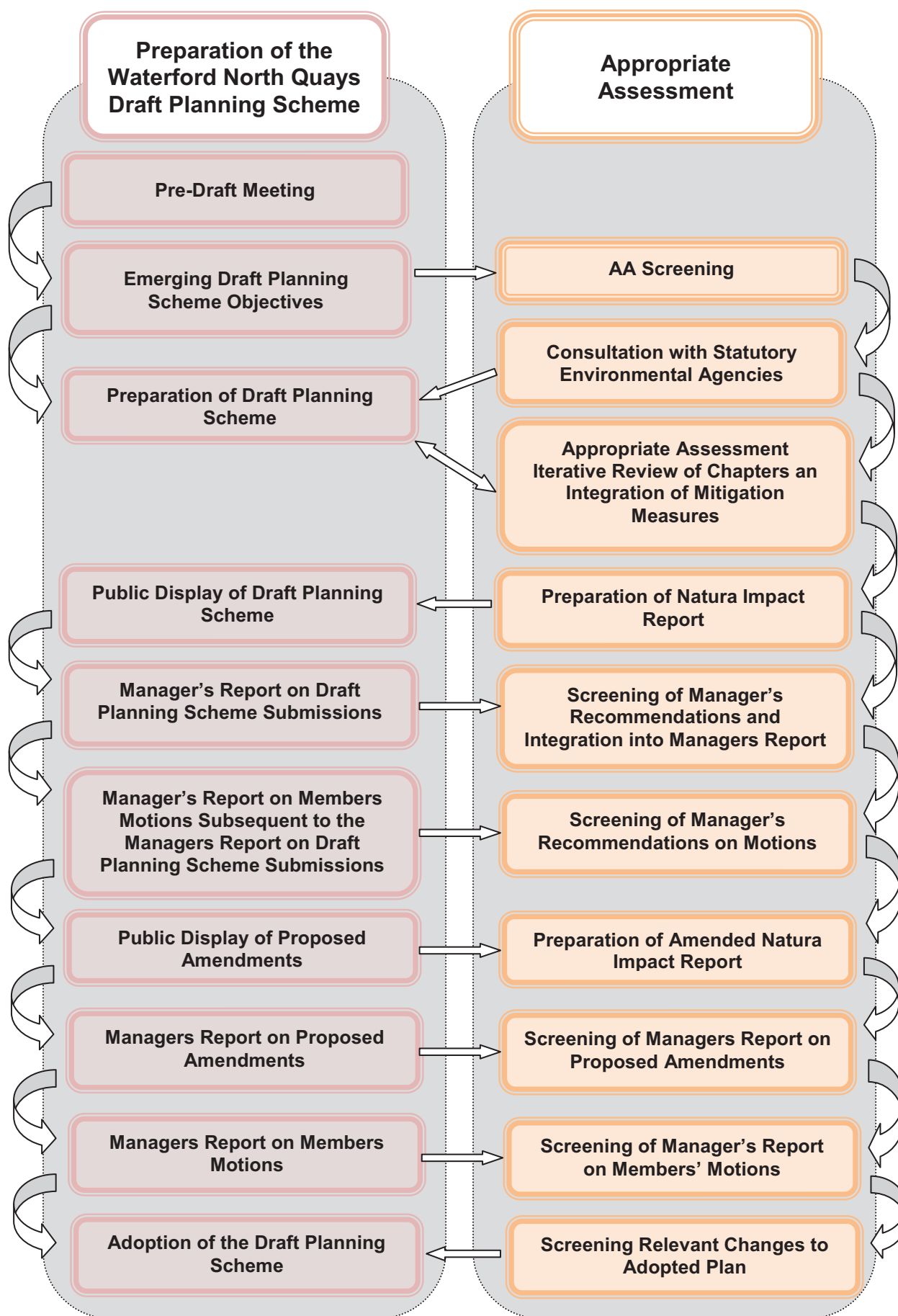


Figure 1.2 Flow Chart of the Integration of AA into the Plan-making Process

1.6 Outcome of Stage 1

The AA Screening carried out by Waterford City & County Council determined that the Draft Planning Scheme is likely to have a significant effect on two Natura 2000 sites, namely the Lower River Suir SAC and the River Barrow and River Nore SAC. Impacts on these Natura 2000 sites include an increased risk of pollution and an increase in disturbance, which have the potential, either individually or in combination with other plans and projects, to result in significant effects on the Conservation Objectives for the Qualifying Interests Twaite Shad, Atlantic Salmon and European Otter in both of these Natura 2000 sites. Accordingly, a full (Stage 2) AA in respect of the Draft Planning Scheme is required.

1.7 Scope and Purpose of Stage 2

The AA to be carried out by Waterford City & County Council must examine, analyse and evaluate the implications of the Draft Planning Scheme, either individually or in combination with other plans or projects, for the Lower River Suir SAC and the River Barrow and River Nore SAC and make complete, precise and definitive findings in respect of the same. Where, on the basis of best scientific knowledge and in view of the Conservation Objectives of these Natura 2000 sites, the AA cannot ascertain that the Draft Planning Scheme would not have an adverse effect on the integrity of these sites, it must prescribe appropriate mitigation to ensure beyond reasonable scientific doubt that such effects do not occur.

2.0 THE NORTH QUAYS PLANNING SCHEME

2.1 Statutory Context for the NQ SDZ

The Government designated lands at North Quays in Waterford City as a site for a Strategic Development Zone (SDZ) on 20th January 2016. Part IX of the Planning and Development Act 2000-2011 provides for the designation of a Strategic Development Zone (SDZ) to facilitate development which in the opinion of the Government is of economic or social importance to the State. Waterford City and County Council are specified as the Development Agency (SI No 30 of 2016) for the purpose of developing a planning scheme for the North Quays Strategic Development Zone (SDZ).

The Government designation for the site permits *“the establishment of a strategic development zone in accordance with the provisions of Part IX of the Act for a mixed use development which may include commercial activities including, office, hotel, leisure and retail facilities, residential development and the provision of educational facilities, supporting transport infrastructure, emergency services and the provision of community facilities as referred to in Part III of the First Schedule to the Act, including health and childcare services, as appropriate”*.

The SDZ has been designated taking into consideration existing planning policy to include:

- The National Spatial Strategy 2002-2020 which identifies Waterford as a Gateway;
- The South East 2010-2020 Regional Planning Guidelines which identify the North Quays as an area of key regional significance;
- The core strategy and objectives of the Waterford City Development Plan 2013-2019; and
- Wider Government policy to support balanced regional development.

Once a Planning Scheme comes into effect, any development within it will require planning permission from Waterford City and County Council. If development proposals are consistent with the Planning Scheme they will be granted permission. Proposals which are not consistent with the Planning Scheme will be refused permission. No party may appeal to An Bord Pleanála the decision of Waterford City and County Council, on any application for permission in respect of a development within the area of the Planning Scheme.

2.2 Contents of the Draft Planning Scheme

The Draft Planning Scheme has been prepared by Waterford City & County Council as the designated Development Agency for the North Quays SDZ. It comprises a written document with maps and figures. Separate documents that accompany it and that have informed the development of the Draft Planning Scheme include this Environmental Report (Strategic Environmental Assessment), the Natura Impact Report (Appropriate Assessment) and a Strategic Flood Risk Assessment.

The Draft Planning Scheme is comprised of six Chapters, as follows:

- Chapter 1: Introduction
- Chapter 2: Site Context
- Chapter 3: Physical & Social Infrastructure

- Chapter 4: Planning Strategy
- Chapter 5: Architectural Strategy
- Chapter 6: Actions & Implementation

The Draft Planning Scheme sets out the Vision and Principal Goals for the North Quays SDZ, which are supported by Specific Objectives throughout the document. The Draft Planning Scheme outlines how it will guide the future development of the area in terms of physical, social, economic and environmental protection and enhancement in accordance with the national, regional and local higher-level plans and policies. The Draft Planning Scheme includes the objective PSS 1: All future planning applications shall comply with the relevant Waterford City Development Plan policies and objectives.

The development of the North Quays SDZ envisaged by the Draft Planning Scheme addresses the need to re-use brownfield sites and to consolidate and optimise land uses in the core city centre area. The vision includes for a mixed use development area which will connect to the existing City Centre (to the south) via a new sustainable transport bridge over the River Suir.

The Draft Planning Scheme proposes an integrated multi-modal transportation hub including the relocation of train station to the north quays and a mix of land uses to include comparison retail, food and beverage retail, 200-300 residential units, office, hotel and events centre, Tourism/Cultural /Enterprise/Light Industry/Community and public open spaces. Pedestrian access is prioritised along the river front, with the service access road proposed to form a spine road through the site, parallel to the railway line either above or below ground. It is envisaged in the Draft Planning Scheme that the SDZ will build on the character of the riverside location and create a high-quality urban quarter which extends and links to the neighbouring city centre and improves access to the surrounding areas including Ferrybank, Abbeylands and Rockshire. An overview of the contents of each chapter of the Draft Planning Scheme is presented below.

Chapter 1: Introduction

This chapter details the background of the site and the need for the development of the North Quays as identified in National, Regional and Local planning policy. The Vision and Principal Goals for the North Quays SDZ are stated and the role of Strategic Environmental Assessment (SEA) process and Appropriate Assessment (AA) process in the preparation and development of the Draft Planning Scheme is explained.

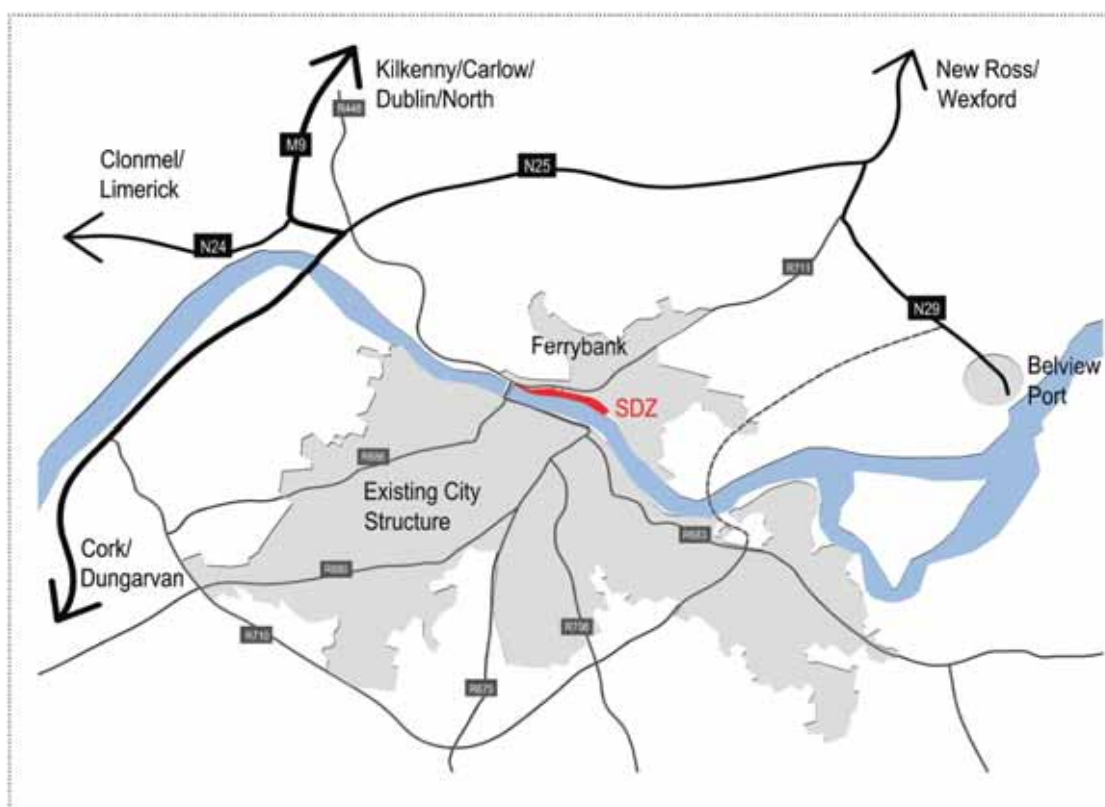


Figure 2.1 The location of the North Quays SDZ in the Context of Waterford City and the Road Network.

Chapter 2: Site Context

This Chapter provides a description and the context of the site, including its prominent location along the River Suir, opposite the South Quays and the existing city centre. It acknowledges the history of the site as the former centre for commercial and port activity within Waterford City and the importance of the quays in that regard. An overview of the site and surrounding environs includes a description of the existing landscape and topography of the North Quays site, including its physically and visually contained location between the River Suir and the elevated lands to the north. An account of the constraints which currently define the site and its environs are also identified, highlighting some of the challenges posed by the site.

This chapter of the Draft Planning Scheme also examines the location of the North Quays site in relation to the City Centre, identifying the uneven development north and south of the River Suir and the restricted development of the City Centre, which is reported as causing retail leakage from the region. It outlines the opportunities that the development of the North Quays can provide to enhance the growth of the City Centre.

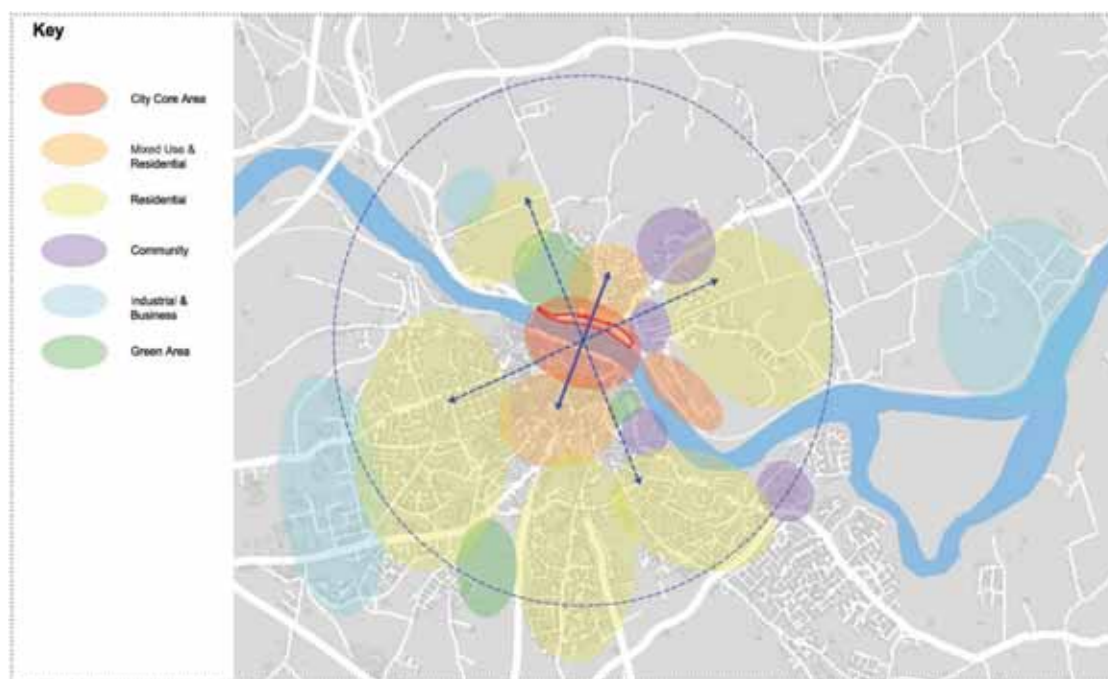


Figure 2.2 Illustration of how the North Quays Consolidate the City Core and Link to Mixed-use, Residential and Community Areas North of the River.

Chapter 3: Physical & Social Infrastructure

This Chapter details the physical and social infrastructure proposed by the Draft Planning Scheme and presents these in two parts: Part A Access & Connectivity and Part B Environmental & Social Infrastructure.

Part A identifies new access and connectivity points that will be developed as part of the SDZ, including two new access points from Dock Road and Abbey Road, and a sustainable transport bridge across the River Suir from the South Quays. Parking provisions are detailed along with a summary of traffic analysis carried out. Compliance with the Waterford Planning Land Use and Transportation Strategy (PLUTS 2004-2020) is considered to be a key feature of the development of the Planning Scheme. The proposed transportation hub and transport provisions are detailed and their role in future-proofing the transportation needs of the city. Specific Objectives are established to ensure that sustainable transport is provided for as part of future development proposals, focusing on a reliance on the use of the private car to the provision of public transport, bicycle and pedestrian infrastructure.



Figure 2.3 Proposed Access Routes to into and Within the North Quays SDZ.



Figure 2.4 Example Design for the New Sustainable Transport Bridge across the River Suir.

Part B outlines environmental infrastructure provisions envisaged for the SDZ site, including water supply, foul drainage and surface water drainage implementing Sustainable Urban Drainage Systems (SuDS). The SuDS principles mentioned in the Draft Planning Scheme include green roofs, bio-retention areas/modified planters, rainwater harvesting, permeable surfacing and swales, while Specific Objectives are also included for surface water drainage and flood management.

Specific Objectives relating to the protection of the Natura 2000 sites and the protection, enhancement and preservation of biodiversity on the site are also included. These will ensure that future planning applications will not give rise to significant direct, indirect or secondary impacts, through indirect or cumulative impact, on Natura 2000 site(s). It states: "All future planning applications will be subject to Appropriate Assessment in accordance with Article 6 of the EU Habitats Directive and must comply with the Specific Objectives outlined in the Draft Planning Scheme."

Utilities and information communication technology provisions, energy sources and waste management objectives for the SDZ are also detailed. Social infrastructure provisions outline the range of infrastructure that will be permissible and accessible to the future populations. It outlines the importance of good quality social infrastructure in promoting integration of the North Quays with existing communities. Community infrastructure is also considered such as educational, childcare, healthcare facilities and play areas.

Chapter 4: Planning Strategy

This chapter details there a three development zones in the SDZ. It illustrates using maps the location of types of developments, massing, heights, parking considerations and permissible land use types. It details the extent of development and breakdown of land use, including the maximum and minimum provisions for each land use type, as per Table 2.1 below.

Table 2.1 **Extent of Development, as Set Out in the Draft Planning Scheme.**

Land Use	Minimum Gross Lettable Area	Maximum Gross Lettable Area
Retail (Comparison)	20,000sqm	30,000sqm
Food and Beverage	5,000sqm	7,000sqm
Office	10,000sqm	15,000sqm
Hotel and Conference Centre	10,000sqm	15,000sqm
Tourism/Cultural/Enterprise/Light Industry/Community Facilities	10,000sqm	15,000sqm
Residential	200 units	300 units

Specific objectives are outlined for each land use type while limits and specifications are also given for views, building height, massing, landmark buildings, public realm and urban form.

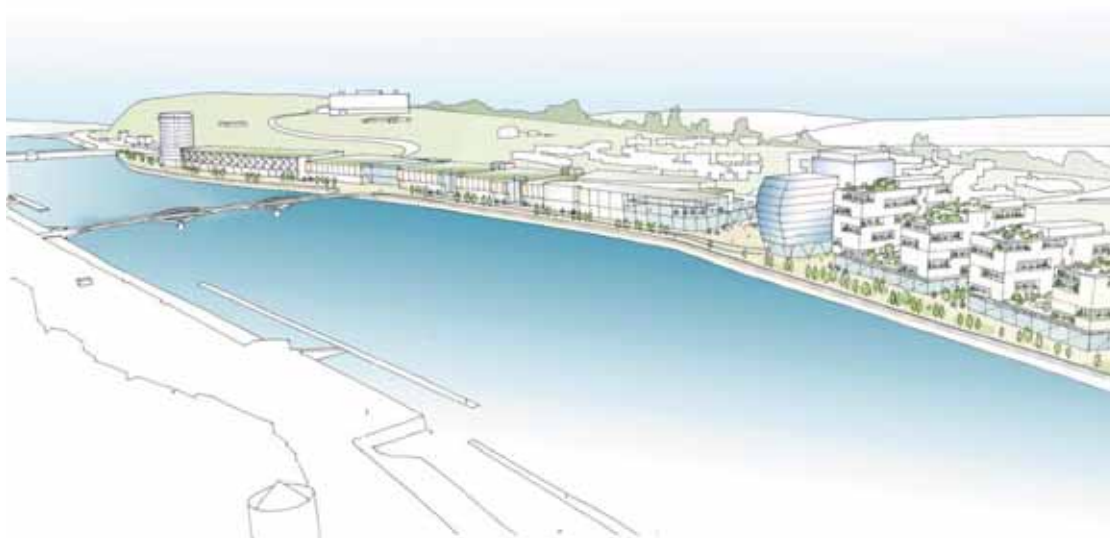


Figure 2.5 **Illustration of Potential View from Southeast of the North Quays.**

Chapter 5: Architectural Strategy

This chapter describes the architectural vision for the North Quays SDZ in creating a sustainable modern quarter connected to and consolidating the city centre while facilitating the natural expansion of the northern city environs. The vision aims to encompass connectivity and porosity together with a variation in ground levels through the use of podiums. A riverside promenade is proposed along the length of the scheme while edges and massing provisions are also detailed. Specific design requirements and objectives for the central development zone are included as it is the most significant, key section of the development. The transportation hub identified as part of the supporting infrastructure for the SDZ is outlined with a

number of specific objectives while development areas to the east and west of the SDZ and views of key importance are also identified.

Landscaping and public space considerations are outlined through a landscape strategy and greening requirements including objectives with the intent of creating a mix of quality active and passive spaces that will have an important role to play in the health and well being of the area as well as animating the site. Materials, finishes and technology to be considered as part of future proposals are outlined and recognised as playing a significant role in creating an innovative, smart and cohesive image for the North Quays. Sustainability objectives relating to sustainable transport, building design, energy use and energy efficiency are also outlined. Specific Objectives are included to ensure future proposals contribute towards reduced carbon emissions.



Figure 2.6 Examples of a City Centre Promenade.

Chapter 6: Actions & Implementation

This Chapter sets out the key actions required for the successful delivery of the North Quays. It states that, An Implementation Plan for the Development Agency will be prepared following the adoption of the Planning Scheme to prioritise the investment and funding requirements identified in the Planning Scheme and set out the delivery programme for the Development Agency. Engagement with relevant stakeholders, including landowners and infrastructure providers, will form part of the preparation of the Implementation Plan. It indicates how the Development Agency envisages how the Phases will occur and the provision of key elements of infrastructure. The chapter also details development contributions exploring potential sources of funding to ensure the completion of the development. It outlines the process by which all applications in the SDZ will be assessed. Each Planning application within the planning scheme area must be accompanied by a Compliance Statement illustrating how the development complies with the Planning Scheme.

In order to assess planning applications under the SDZ and determine whether planning permission should be refused or granted, a Compliance Matrix will be prepared by the Development Agency in determining whether planning permission should be refused or granted, development proposals within the North Quays SDZ will be considered under the following:

- The principal goals
- The Planning Scheme urban form and land uses
- The specific objectives contained within the Planning Scheme

2.3 Principal Goals for the North Quays

The Principal Goals for the North Quays are:

- 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 does not undermine 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;
- To develop a design led scheme of high quality architectural merit.
- To balance the employment, retail and commercial base of the North Quays with the future residential growth of the City and the south east region;
- To provide a sustainable transport hub on the North Quays;
- To provide for sustainable patterns of movement and access with priority for pedestrians, cyclists and public transport;
- To promote quality design for the spaces between and around buildings, the public realm that connects the various elements of the North Quays together including the wider hinterland;
- To create a safe, accessible and socially cohesive environment where people of all ages and abilities can live work and relax;
- To provide sustainable infrastructure and services for future populations;
- To provide for the protection, enhancement and improvement of the natural environment, including the avoidance of adverse effects on European sites, particularly the Lower River Suir SAC and the River Barrow and River Nore SAC.
- To create a sustainable urban environment, which respects it's natural, historic and cultural heritage.
- To provide sustainable solutions that addresses and manages the risk of flooding and climate change;
- To promote the incorporation of resource energy efficiency and waste management into the area.

The principal goals are supported by attainable steps referred to as specific actions throughout the Draft Planning Scheme.

2.4 The Vision

The opportunity exists for a transformative development that can become a regeneration catalyst for the city and region. The vision for the North Quays is:

- To create a sustainable, compact extension to the City Centre that will serve a future population of a 83,000 people;

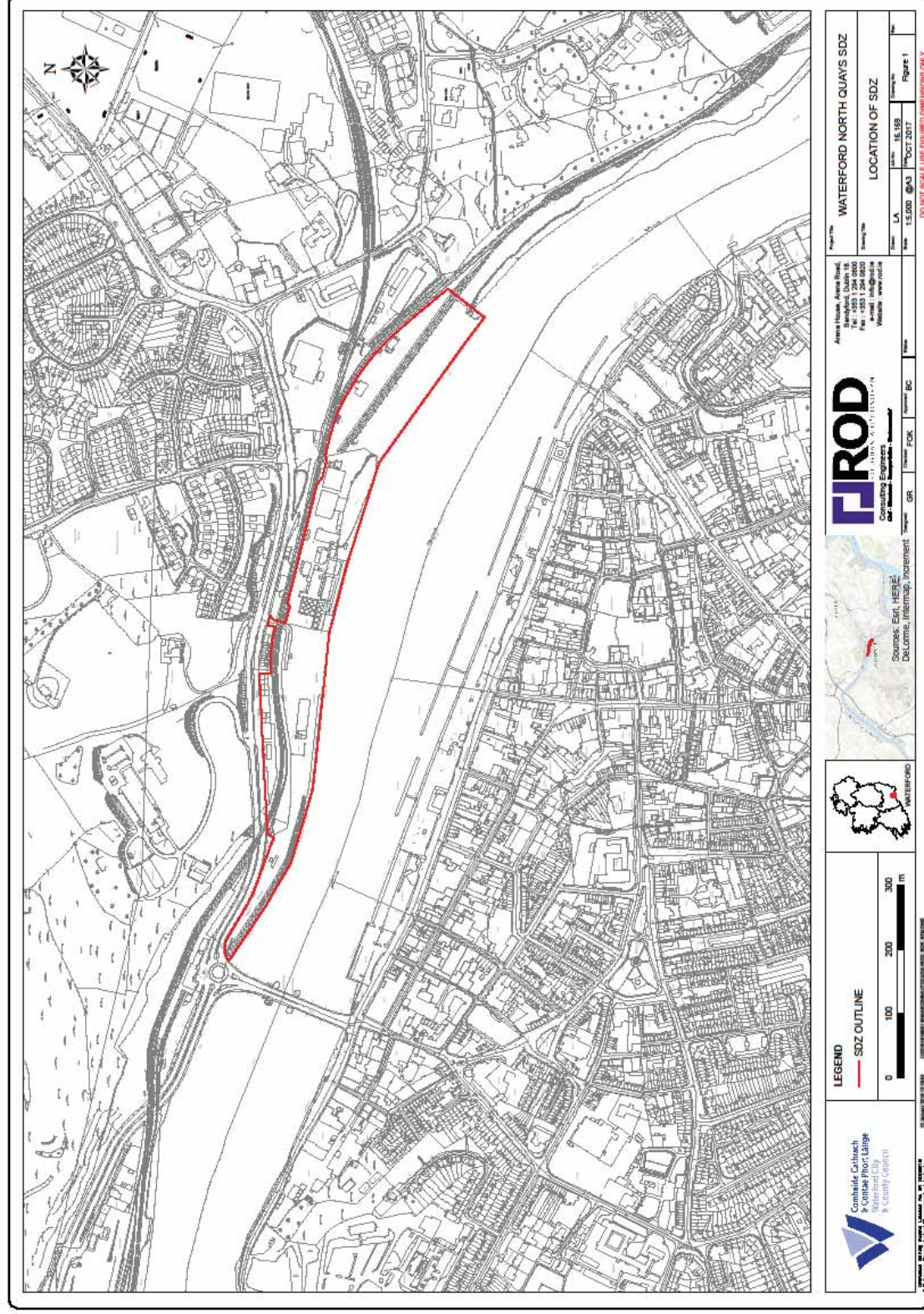
- A regeneration catalyst for the City and Region and the establishment of a sustainable modern city quarter;
- Creation of an integrated multi-modal transport hub designed to sustainably meet the access requirements of the City; and
- Building on the context and the riverside location of the site to create a high quality urban quarter as a natural extension of the City Centre.

2.5 SDZ Location and Description

The designated NQ SDZ is an 8.23 ha brownfield site located on the northern banks of the River Suir, 300m from Waterford City centre. The SDZ stretches from Rice Bridge, approximately 1km eastward to just before Abbey Church. With the exception of the Hennebique Building, all of the industrial buildings and storage sheds were demolished during 2015 and 2016. The SDZ comprises an assembly of wharves and the Rosslare to Waterford rail line traverses the site in an east west direction.

The site is bound to the south by the River Suir, and to the north by the Dock Road (R711) – a regional dual carriageway connecting Waterford City centre with the national routes including N29 (to Bellview Port), located 4.7 km to the northeast, N25 (leading to the M9 Kilkenny and Dublin) and N25 to New Ross and Wexford.

The site has a very significant presence in Waterford City, forming as it does a nearly 1 km frontage opposite 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 site has a south facing aspect and has significant redevelopment capacity, already having contained buildings of seven or eight storey equivalence and having very few boundary constraints due to separation from existing (mixed residential/commercial) development by the presence of the disused New Ross railway line and dual carriageway road network to the North and River Suir to the South.



3.0 NATURA 2000 SITES LIKELY TO BE AFFECTED

3.1 Determining the Likely Zone of Impact

Section 3.2.3 of the DEHLG (2010) details the procedure for selecting the Natura 2000 sites to be considered for AA. It states that Natura 2000 sites potentially affected should be identified and listed, bearing in mind the potential for direct, indirect and/or cumulative/in-combination effects. It also states that the specific approach in each case is likely to differ depending on the scale and likely effects of the plan or project. However, it advises that the following sites should generally be included:

- All sites within or immediately adjacent to the plan or project area;
- All sites within the likely zone of impact of the plan or project; and,
- In accordance with the Precautionary Principle, all sites for which there is doubt as to whether or not they might be significantly affected.

The “*likely zone of impact*” of a plan or project is the geographic extent over which significant ecological effects are likely to occur. In the case of projects, DEHLG (2010) recommends that the likely zone of impact must be established on a case-by-case basis, with reference to the following key variables:

- The nature, size and location of the project;
- The sensitivities of the ecological receptors; and,
- The potential for cumulative effects.

For example, in the case of a project that could affect a watercourse, it may be necessary to include the entire upstream and/or downstream catchment in order to capture all Natura 2000 sites with water-dependent Qualifying Interests. In the case of plans, however, the guidance recommends that this zone extend to a distance of 15km in all directions from the boundary of the plan area.

Following the guidance provided in DEHLG (2010) and taking into account the key variables outlined above, the likely zone of impact for the Draft Planning Scheme was defined as the area within a 15km buffer around the boundary of the SDZ.

ArcView software was used in conjunction with publicly available Ordnance Survey Ireland maps and National Parks & Wildlife Service shapefiles to identify and analyse the boundaries of Natura 2000 sites in relation to the likely zone of impact (Table 3.1; Figure 3.1). It was determined that five Natura 2000 sites, namely the Lower River Suir SAC, the River Barrow and River Nore SAC, the Tramore Dunes and Backstrand SAC, Tramore Back Strand SPA and the Mid-Waterford Coast SPA occur within the likely zone of impact.

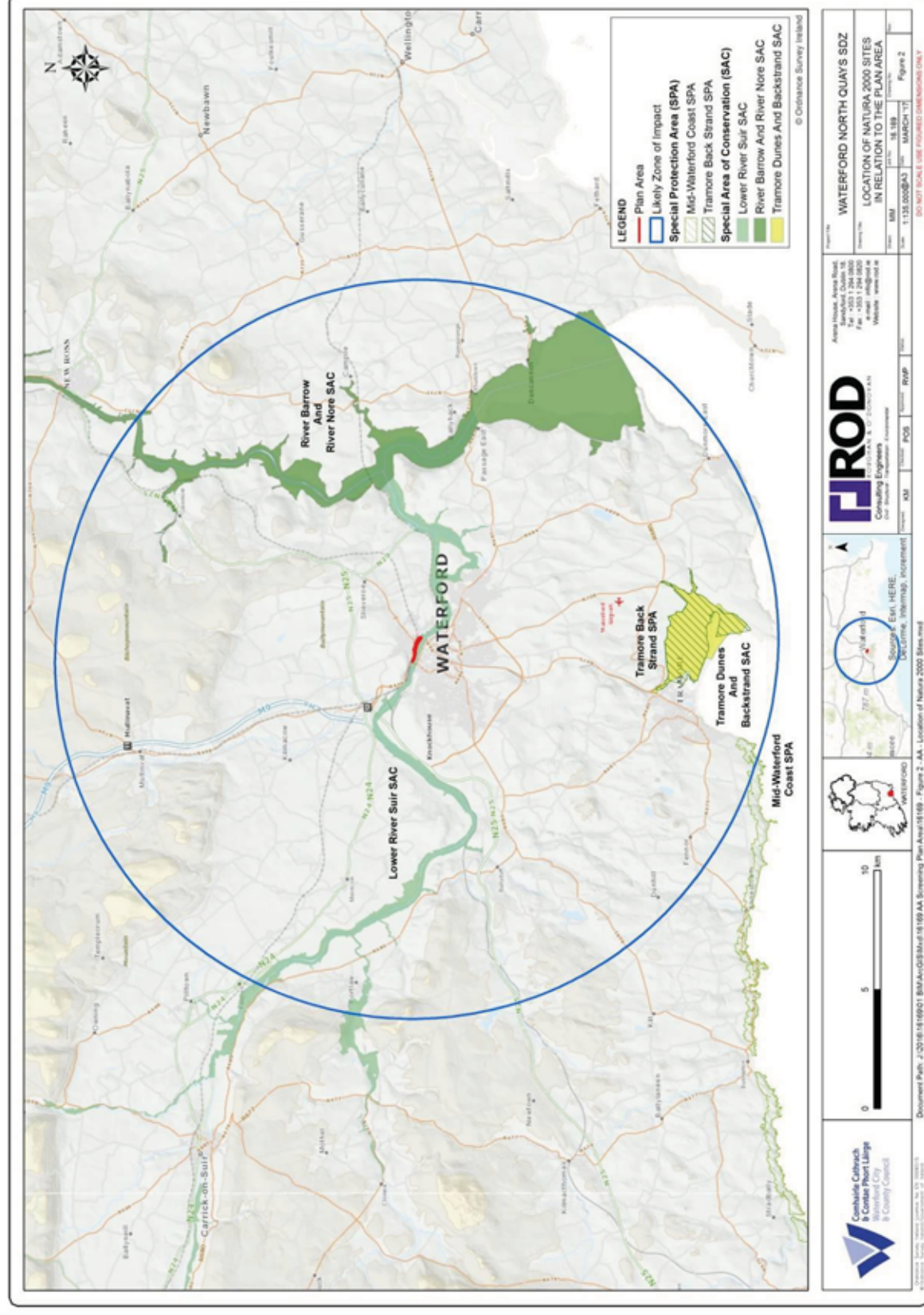


Figure 3.1 Location of Natura 2000 Sites in Relation to the Likely Zone of Impact of the Draft Planning Scheme

Table 3.1 Natura 2000 Sites Within the Likely Zone of Impact of the Plan

Site ID	Description	Proximity
Lower River Suir Special SAC [002137] Site area: 7,099.99ha	This site consists of the freshwater stretches of the River Suir south of Thurles and the tidal stretches as far as the confluence with the River Barrow/River Nore at Cheekpoint in Co. Waterford. The Suir and its tributaries flow through Counties Tipperary, Kilkenny and Waterford. The Lower River Suir contains excellent examples of a number of Annex I habitats, including the priority habitats alluvial forest and Yew woodland. The site also supports populations of several important animal species, some of which are listed on Annex II of the Habitats Directive. The presence of two legally protected plants (Flora (Protection) Order, 2015) and the ornithological importance of the site adds further to the ecological interest and importance.	The SAC is directly adjacent to the North Quays SDZ
River Barrow and River Nore SAC [002162] Site area: 12,373.17ha	This site comprises the River Barrow and River Nore catchments from the source in the Slieve Bloom Mountains to Creadan Head in Waterford. Urban centres along the site include Portarlinton, Athy, Carlow, Kilkenny and New Ross. Overall, it is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the Habitats Directive. Furthermore, it is of high conservation value for its populations of a number of bird species listed on Annex I of the Birds Directive. The occurrence of several Red Data Book plant species and the endemic population of the hard-water form of the Freshwater pearl mussel (limited to a 10km stretch of the Nore) add further value to this site.	The SAC boundary is approx. 6km downstream of the North Quays SDZ
Tramore Dunes and Backstrand SAC [000671] Site area: 752.83ha	This site comprises a shallow and sheltered intertidal area, known as the Back Strand, enclosed by a substantial sand spit, Tramore Burrow. Here salt marsh vegetation, <i>Spartina</i> swards and communities of <i>Salicornia</i> and other annuals thrive. The salt marshes are of the lagoon type, a rare type in Ireland, and both Atlantic and Mediterranean communities are well represented. The intertidal sand and mud flats are of moderate size and have <i>Zostera</i> communities. Five Red Data Book plant species have been known from the site and one, <i>Polygonum maritimum</i> , has its only Irish station here. Site supports important wintering waterfowl populations, with <i>Branta bernicla hrota</i> in international numbers and seven other species in numbers of national importance. Two species listed on Annex I of the Birds Directive occur - <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> .	The SAC boundary is approx. 10km south of the North Quays SDZ
Tramore Back Strand SPA [004027] Site area: 675.98ha	An important estuarine site with an internationally important population of <i>Branta bernicla hrota</i> . It supports a further six species in numbers of national importance, including <i>Pluvialis apricaria</i> , <i>Pluvialis squatarola</i> , <i>Limosa limosa</i> and <i>Limosa lapponica</i> . The population of <i>Pluvialis squatarola</i> is of particular note as it represents 4% of the national total. <i>Egretta garzetta</i> breeds locally and the site is their main feeding area. The site provides very good feeding areas for wintering waterfowl. High tide roosting sites, however, are limited. Wintering bird populations have been well monitored since the 1970s.	The SPA boundary is approx. 10km south of the North Quays SDZ
Mid-Waterford Coast SPA [004193] Site area: 937.47ha	This site encompasses the areas of high coast and sea cliffs in Co. Waterford between Newtown Cove to the east and Ballyvoyle to the west. The site includes the sea cliffs and the land adjacent to the cliff edge. The high water mark forms the sea boundary. This site supports a nationally important population of breeding <i>Pyrhocorax pyrrhocorax</i> , a Red Data book species. 24 breeding pairs were recorded in the 1992 survey and 20 in the 2002/03 survey. The site supports an important <i>Falco peregrinus</i> population (7 pairs in 2002). The site also holds nationally important populations of <i>Phalacrocorax carbo</i> (79 pairs) and <i>Larus argentatus</i> (147 pairs), as well as smaller numbers of other breeding seabirds.	The SPA boundary is approx. 14km south of the North Quays SDZ

3.2 Screening of Natura 2000 Sites

Each Qualifying Interest/Special Conservation Interest in each Natura 2000 site is assigned a Conservation Objective of either restoration or maintenance of its “*favourable conservation condition*”, as defined by a set of detailed Attributes with corresponding Targets that must be met if the Conservation Objective for that Qualifying Interest/Special Conservation Interest is to be achieved. The restoration and maintenance of the favourable conservation condition of habitats and species within Natura 2000 sites contributes to the overall conservation status of those habitats and species at a national level. Favourable conservation condition is described in more generic terms below.

The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structures and functions necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and,
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The National Parks & Wildlife Service has developed and published site-specific Conservation Objectives for the Lower River Suir SAC, the River Barrow and River Nore SAC, the Tramore Dunes and Backstrand SAC and the Tramore Back Strand SPA and these are listed in full in Appendix B. Site-specific Conservation Objectives for the Mid-Waterford Coast SPA have not yet been developed, so generic Conservation Objectives apply. For the purposes of the AA, Conservation Objectives for the relevant Special Conservation Interests present in the Mid-Waterford Coast SPA were derived from those developed for the Castlemaine Harbour SPA and Saltee Islands SPA; an approach recommended by the National Parks & Wildlife Service in consultations on other plans and projects. The potential for likely significant effects on the Qualifying Interests of the Lower River Suir SAC, the River Barrow and River Nore SAC and the Tramore Dunes and Backstrand SAC is assessed in view of the relevant Conservation Objectives in the Screening Matrices (Tables 3.2-3.4 below). The potential for likely significant effects on the Special Conservation Interests of the Tramore Back Strand SPA and Mid-Waterford Coast SPA is assessed in view of the relevant Conservation Objectives in the Screening Matrices (Tables 3.5 and 3.6 below). Where potential pathways of risk between the Draft Planning Scheme and the Qualifying Interest/Special Conservation Interest are identified, the likely effects on the relevant Conservation Objectives are assessed and their significance evaluated in view of their respective Attributes and Targets.

Table 3.2

Screening Matrix for the Lower River Suir SAC. Source: NPWS (2013d,e), unless specifically referenced. * = a “priority habitat” in danger of disappearing from the EU. Numbers in square brackets are Natura 2000 codes.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]	This habitat type does not occur within the North Quays SDZ. It is potentially present 2.9km downstream at Little Island.	Atlantic salt meadows generally occupy the widest part of the saltmarsh gradient. They exhibit a distinctive topography with an intricate network of creeks and salt pans occurring on the larger marshes. This habitat contains several distinctive zones that are related to elevation and frequency of submergence. The lowest part along the tidal zone is generally dominated by common saltmarsh-grass (<i>Puccinellia maritima</i>). This habitat is also important for other wildlife including wintering waders and wildfowl. Atlantic salt meadows are distributed around most of the coastline of Ireland. 38 SACs are designated for Atlantic salt meadows in the Member State. It is estimated that a total of 1,479–2,590ha of this habitat occurs within the Natura 2000 network. This habitat forms c. 1% (123,73ha) of the Lower River Suir SAC, equivalent to c.4.8-8.4% of the entire national Natura 2000 contribution for this Qualifying Interest. The overall conservation status of this habitat is considered to be inadequate but “stable”, owing to pressures and threats such as intensive grazing and paths/tracks and cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Atlantic salt meadows in the Lower River Suir SAC (NPWS, 2017b)	Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession	No Likely Significant Effect – There will be no reduction in habitat area as a result of the Draft Planning Scheme.
					Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	No Likely Significant Effect – There will be no reduction in habitat distribution as a result of the Draft Planning Scheme.
					Physical structure: sediment supply	Maintain natural circulation of sediments and organic matter, without any physical obstructions	No Likely Significant Effect – There will be no alteration in sediment supply as a result of the Draft Planning Scheme.
					Physical structure: creeks and pans	Maintain/restore creek and pan structure to develop, subject to natural processes, including erosion and succession	No Likely Significant Effect – There will be no alteration in creek and pan structure as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Physical structure: flooding regime	Maintain natural tidal regime	No Likely Significant Effect – There will be no alteration in the tidal regime as a result of the Draft Planning Scheme.
					Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	No Likely Significant Effect – There will be no alteration in the range of coastal habitats as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation structure: sward height	Maintain structural variation within sward	No Likely Significant Effect – There will be no alteration in the structural variation as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation structure: vegetation cover	Maintain > 90% of the area outside of the creeks vegetated	No Likely Significant Effect – There will be no alteration in vegetation cover as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation composition: typical species and sub-communities	Maintain range of sub-communities with typical species listed in the Saltmarsh Monitoring Project (McCorry & Ryle, 2009)	No Likely Significant Effect – There will be no alteration in the range of subcommunities as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation Structure: negative indicator species <i>Spartina anglica</i>	No significant expansion of Common Cord-grass (<i>Spartina anglica</i>); annual spread < 1%	No Likely Significant Effect – There will be no expansion of Common Cord-grass (<i>Spartina anglica</i>) as a result of the Draft Planning Scheme.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	This habitat type does not occur within the North Quays SDZ. It is potentially present 2.9km downstream at Little Island.	Mediterranean salt meadows occupy the upper zone of saltmarshes and usually occur adjacent to the boundary with terrestrial habitats. They are widespread on the Irish coastline but are not as extensive as Atlantic salt meadows. The habitat is distinguished from Atlantic salt meadows by the presence of rushes such as sea rush (<i>Juncus maritimus</i>) and/or sharp rush (<i>J. acutus</i>), along with a range of species typically found in Atlantic salt meadows, including sea aster (<i>Aster tripolium</i>), sea purslane (<i>Atriplex portulacoides</i>), sea-milkwort (<i>Glaux maritima</i>), saltmarsh rush (<i>J. gerardii</i>), parsley water-dropwort (<i>Oenanthe lachenalii</i>), sea plantain (<i>Plantago maritima</i>) and common saltmarsh-grass (<i>Puccinellia maritima</i>). 33 SACs are designated for this habitat type in the Member State. It is estimated that a total of 577–591ha of Mediterranean salt meadows occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the Lower River Suir SAC, equivalent to c.21% of the entire national Natura 2000 contribution for this Qualifying Interest. The overall conservation status of this habitat is considered to be inadequate but “stable”, owing to pressures and threats such as intensive cattle grazing and walking/cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Mediterranean salt meadows in the Lower River Suir SAC (NPWS, 2017b)	Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession	No Likely Significant Effect – There will be no reduction in habitat area as a result of the Draft Planning Scheme.
					Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	No Likely Significant Effect – There will be no reduction in habitat distribution as a result of the Draft Planning Scheme.
					Physical structure: sediment supply	Maintain natural circulation of sediments and organic matter, without any physical obstructions	No Likely Significant Effect – There will be no alteration in sediment supply as a result of the Draft Planning Scheme.
					Physical structure: creeks and pans	Maintain creek and pan structure, subject to natural processes, including erosion and succession	No Likely Significant Effect – There will be no alteration in creek and pan structure as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Physical structure: flooding regime	Maintain natural tidal regime	No Likely Significant Effect – There will be no alteration in the tidal regime as a result of the Draft Planning Scheme.
					Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	No Likely Significant Effect – There will be no alteration in the range of coastal habitats as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation structure: sward height	Maintain structural variation within sward	No Likely Significant Effect – There will be no alteration in the structural variation as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
					Vegetation structure: vegetation cover	Maintain > 90% of the area outside of the creeks vegetated	No Likely Significant Effect – There will be no alteration in vegetation cover as a result of the Draft Planning Scheme as no works will be undertaken within this habitat.
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]	Tidal and maritime influence of the River Suir at the location of the North Quays SDZ are not suitable for this habitat type. The nearest known occurrence is at least 12km upstream, in the Clodiagh River.	The description of this habitat type is broad, covering rivers from upland bryophyte and macroalgal-dominated stretches, to lowland depositing rivers with pondweeds and starworts. Selection of SACs for this habitat in Ireland has used this broad interpretation. 21 SACs are designated for Floating river vegetation in the Member State. It is estimated that a total of 3,246ha of Floating river vegetation occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the Lower River Suir SAC, equivalent to c.3.8% of the entire national Natura 2000 contribution for this Qualifying Interest. The overall conservation status of this habitat is considered to be inadequate and “declining” due to numerous pressures, including pollution from agricultural, forestry and industrial sources, as well as modification of hydrological regimes.	No – Given that this habitat is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation, the Draft Planning Scheme is not likely to compromise the maintenance of the favourable conservation condition of this habitat type in the Lower River Suir SAC.	

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	The nearest occurrence is at least 12km upstream, in the Clodiagh River.	Three distinct communities can be considered for this habitat in Ireland. In the lowlands, it occurs as a community of watercourses, particularly unmanaged edges of slow-moving rivers and the margins of lakes. Nutrient levels may be naturally high. The community is dominated by tall hydrophilous herbs and horsetails (<i>Equisetum</i> spp.) are a common feature, but monospecific stands such as reed beds, large sedge swamps, large areas of fallow wet meadow are excluded from the classification.	No – Given that this habitat is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.	Target	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, the Draft Planning Scheme is not likely to compromise the maintenance of the favourable conservation condition of this habitat type in the Lower River Suir SAC.
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	The nearest occurrence is 15km upstream, on the banks of the Clodiagh River, outside Portlaw.	Old oak woodlands are defined in the interpretation manual of EU habitats as "acidophilous <i>Quercus petraea</i> woods, with low, low-branched, trees, with many ferns, mosses, lichens and evergreen bushes". 40 SACs are designated for this habitat type in the Member State and it is estimated that a total of 3,899ha of the habitat type occurs within the Natura 2000 network. This habitat forms c. 1.0% (123,73ha) of the SAC, equivalent to c. 3.1% of the entire national Natura 2000 contribution for this Qualifying Interest. The overall conservation status of this habitat is considered to be Bad but "improving".	No – Given that this habitat is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.	Target	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles, the Draft Planning Scheme is not likely to compromise the restoration of the favourable conservation condition of this habitat type in the Lower River Suir SAC.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)* [91E0]	The nearest occurrence is 20km upstream, above the tidal limit of the River Suir, near Carrick-on-Suir.	Residual alluvial forests occur on heavy soils that are periodically inundated by the annual rise of river levels, but which are otherwise well drained and aerated during low water. 25 SACs are designated for this habitat type in the Member State. It is estimated that a total of 1,046ha of 91E0 occurs within the Natura 2000 network. This habitat forms c. 1.0% (123,73ha) of the SAC, equivalent to c. 11.82% of the entire national Natura 2000 contribution for this Qualifying Interest. The overall conservation status of this habitat is considered to be Bad but "improving".	No – Given that this habitat is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)* in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.	Target	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*, the Draft Planning Scheme is not likely to compromise the restoration of the favourable conservation condition of this habitat type in the Lower River Suir SAC.
<i>Taxus baccata</i> woods of the British Isles* [91J0]	The nearest occurrence is at least 50km upstream, in Cahir Park.	Two stands of Yew (<i>Taxus baccata</i>) woods, a rare habitat in Ireland and the EU, occur within the site. Yew woodland is a highly restricted habitat type in Ireland which occurs at a handful of sites on outcropping limestone with skeletal soils in the south-western part of the country in these stands is typically dominated by <i>Taxus baccata</i> with <i>Fraxinus excelsior</i> , <i>Corylus avellana</i> and <i>Ilex aquifolium</i> often frequent. The ground is generally covered by an extensive bryophyte carpet dominated by a few robust pleurocarpous species, e.g. <i>Thamnobryum alopecurum</i> , <i>Neckera crispa</i> . Where present, the field layer consists of the grass <i>Brachypodium sylvaticum</i> , herbs (e.g. <i>Viola riviniana</i>), <i>reichenbachiana</i> , <i>Potentilla sterilis</i>) and ferns (e.g. <i>Phyllitis scolopendrium</i>). This woodland type has been classified as a facies of the <i>Corylo-Fraxinetum</i> association by Kelly (1981) and shares many of the same species. Reliable data for the extent and distribution of this Qualifying Interest in the Member State and Natura 2000 network is not available	No – Given that this habitat is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of <i>Taxus baccata</i> woods of the British Isles* in the Lower River Suir SAC (NPWS, 2017b)	The definition of favourable conservation condition in respect of species, as given in Section 3.2 above, was considered in the Screening process with regard to this Qualifying Interest.	Target	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and <i>Taxus baccata</i> woods of the British Isles*, the Draft Planning Scheme is not likely to compromise the restoration of the favourable conservation condition of this habitat type in the Lower River Suir SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) [1029]	The nearest occurrence is at least 12km upstream, in the Clodiagh River.	The Freshwater pearl mussel <i>Margaritifera margaritifera</i> grows to 140mm in length, and burrows into sandy substrates, often between boulders and pebbles, in fast-flowing rivers and streams. It requires cool, well-oxygenated soft water free of pollution or turbidity. The mussel spends its larval, or glochidial, stage attached to the gills of Salmonid fishes. This species does not reach reproductive maturity until at least 12 years old and may live for over 120 years, therefore population age-structure is vitally important when assessing viability. This species has undergone severe population decline and, in many cases, unable to reproduce because of poor water quality. An estimated 9.7 million adult mussels occur in the 19 SAC designated for the protection of the species. This represents 89% of the national population. The overall conservation status of this species is considered to be Bad and Unfavourable.	No – Given that this species is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Freshwater Pearl Mussel in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Freshwater Pearl Mussel, the Draft Planning Scheme is not likely to compromise the restoration of the favourable conservation condition of this species in the Lower River Suir SAC.
White-clawed Crayfish (<i>Austropotamobius pallipes</i>) [1092]	The nearest occurrence is at least 12km upstream, in the Clodiagh River.	The White-clawed Crayfish is a large, long-lived freshwater crustacean. In other parts of Europe, it is mostly found in first-order streams. In Ireland, however, it has a wider habitat range, occurring in lakes, large rivers, streams and drains. The species is generally associated with good water quality, but it can occur at values as low as Q3. It prefers cool waters with adequate dissolved oxygen and lime, though tolerating significant fluctuations in these. Habitat heterogeneity accommodating this species' ontogeny has been identified as key to its persistence. It is 'highly vulnerable to aphanomycosis or "crayfish plague" caused by the oomycete <i>Aphanomyces astaci</i> , a major vector of which is the American signal crayfish (<i>Pacifastacus leniusculus</i>). Ireland is a potential ark site for the conservation of White-clawed Crayfish due to low instance of aphanomycosis and being the only European country free of invasive crayfish. 15 SACs are designated for this species in the Member State, though it is not present in 2 of those and there are a further 17 SACs in which this species occurs but is not listed as a Qualifying Interest. The overall conservation status of the species is considered inadequate but "stable", with major pressures/threats including disease and invasive species.	No – Given that the habitat of this species is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of White-clawed Crayfish in the Lower River Suir SAC (NPWS, 2017b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2017b) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and White-clawed Crayfish, the Draft Planning Scheme is not likely to compromise the maintenance of the favourable conservation condition of this species in the Lower River Suir SAC.
Sea Lamprey (<i>Petromyzon marinus</i>) [1095]	This species is potentially present immediately adjacent to the North Quays SDZ in the River Suir.	The Sea lamprey is a primitive anadromous fish species. Adults live at sea as external parasites on host fish. Migration to freshwater occurs in spring and spawning in May/June. Spawning occurs throughout June, with the adult fish dying immediately afterwards. Hatching of ammocoetes takes place within days and the immature lamprey swims or drifts downstream until it encounters an area of fine sediment into which it can burrow. Transformation to the adult stage occurs in late summer and young adults migrate downriver in late autumn/winter. Barriers to migration are seen as major negative impacts on this species. 12 SACs are designated for this species in the Member State. Population size within the Lower River Suir SAC is not determined. However, King (2006) suggests a lower abundance and distribution compared to other main river systems and notes that barriers to suitable habitat further up the catchment may be a limitation on this population. The overall conservation status of the species is considered Bad but 'stable', with major pressures/threats including canalisation and barriers to migration.	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of Sea Lamprey in the Lower River Suir SAC (NPWS, 2017b)	Distribution: extent of anadromy Population structure of juveniles Juvenile density in fine sediment	> 75% of main stem length of rivers accessible from estuary ≥ 3 age/size groups present ≥ 1m ⁻²	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration. No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to spawning (freshwater) habitat.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Brook Lamprey (<i>Lampetra planeri</i>) [1096]	Present in the River Clodiagh, a tributary of the River Suir, approximately 12km upstream	The Brook lamprey is the smallest of the three lampreys recorded in Ireland. It is non-parasitic and non-migratory as an adult, living its entire life in freshwater. Adults spawn in spring and, after hatching, the ammocoetes drift or swim downstream before encountering areas of river bed with a fine silt composition. They burrow into this bed material and live as filter feeders over a period of years before transforming into young adult fish. The young adults overwinter before migrating short distances upstream to gravelled areas where they spawn and die. 10 SACs are designated for this species in the Member State. Population size within the Lower River Suir SAC is not determined. The overall conservation status of the species is considered Favourable, with main pressures/threats including dredging and removal of sediments.	No – Given that the habitat of this species is located a significant distance upstream of the North Quays SDZ, potential pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Brook Lamprey in the Lower River Suir SAC (NPWS, 2017b)	Availability of juvenile habitat	> 50% of sample sites positive	No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat.
River Lamprey (<i>Lampetra fluviatilis</i>) [1099]	This species is potentially present immediately adjacent to the North Quays SDZ, in the River Suir.	The River and Brook lamprey are indistinguishable as larvae, living as filter feeders in sediment. The mature adult forms are clearly distinguishable on the basis of body size. Migration to freshwater occurs in spring and spawning in May/June. 10 SACs are designated for this species in the Member State. Major pressures/threats to River lamprey include both diffuse and point-source pollution, invasive species, dredging and barriers to migration. The overall conservation status of the species is considered to be Favourable	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of River Lamprey in the Lower River Suir SAC (NPWS, 2017b)	Distribution	Access to all water courses down to first order streams	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration.
					Population structure of juveniles	≥ 3 age/ size groups present	No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat.
					Juvenile density in fine sediment	Mean catchment density ≥ 2m ⁻²	No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat.
					Extent and distribution of spawning habitat	No decline	No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to spawning (freshwater) habitat.
					Availability of juvenile habitat	> 50% of sample sites positive	No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat.
					Distribution: extent of anadromy	> 75% of main stem length of rivers accessible from estuary	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration.
					Population structure: age class	> 1 age class present	No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as the North Quays SDZ is located at least 12km downstream of spawning habitat.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
	Rivers Suir and Barrow, supports an internationally important population of Twaite Shad.	reach up to 100mm by the end of the first year. Irish Twaite Shad may live in estuarine waters for at least 2 years before going to sea. 4 SACs are designated for this species in the Member State. The only known spawning location of Twaite Shad occurs in the Barrow North of St Mullins (Doherty <i>et al.</i> , 2004). It is suggested that in excess of 95% of the Irish population of Twaite Shad occurs within the SAC network designated for this species and that the current network is adequate and appropriate for the species, in the context of maintaining adequate conservation status. The overall conservation status of the species is considered Bad but "stable", with major pressures/threats including invasive species, fishing and inbreeding.	pollution and sedimentation.		Extent and distribution of spawning habitat	No decline	No Likely Significant Effect – The Draft Planning Scheme will not impact on any spawning habitat as the North Quays SDZ is located at least 12km downstream of suitable habitat.
					Water quality: oxygen levels	≥ 5 mg/l	Likely Significant Effect – Accidental pollution resulting in a reduction in water quality cannot be ruled out.
					Spawning habitat quality: filamentous algae; macrophytes; sediment	Maintain stable gravel substrate	No Likely Significant Effect – The Draft Planning Scheme will not impact on any spawning habitat as the North Quays SDZ is located at least 12km downstream of suitable habitat.
Atlantic Salmon (<i>Salmo salar</i>) [1106]	This species is likely to occur immediately adjacent to the North Quays SDZ, in the River Suir.	The Atlantic salmon is an anadromous species indigenous to the North Atlantic. Salmon use rivers to reproduce and as nursery areas during their juvenile phase. Adults spend 1 to 3 years at sea where growth rates are much greater. The Irish population generally comprises fish that spend 2 winters in freshwater before going to sea in April-June. The majority of Irish fish spend 1 winter at sea before returning to their natal rivers, mainly during the summer. Smaller numbers spend 2 winters at sea, returning mainly in spring. A small proportion of the adult population returns to sea post-spawning and can spawn again. 26 SACs are designated for this species in the Member State, containing between c.97,643 and c.146,464 individuals of the national population of c.244,107. The River Barrow/River Nore is mainly a grise fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistioge on the River Nore. The upper stretches of the River Barrow and River Nore, particularly the Owenass River, are very important for spawning. The overall conservation status of the species is considered inadequate but "stable", with major pressures/threats including agricultural intensification, disposal of household/recreational facility waste, poaching and pollution due to agriculture, forestry, household sewage and waste waters.	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of Atlantic Salmon in the Lower River Suir SAC (NPWS, 2017b)	Distribution: extent of anadromy	100% of river channels down to 2 nd Order accessible from estuary	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration.
					Adult spawning fish	Conservation Limit for each system consistently exceeded	No Likely Significant Effect – There will be no change to the abundance of spawning adult fish as a result of the Draft Planning Scheme.
					Salmon fry abundance	Maintain or exceed 0+ fry mean catchment wide abundance threshold of 17 fry per 5-min sampling effort	No Likely Significant Effect – The Draft Planning Scheme is unlikely to alter small fry abundance as the North Quays SDZ has no hydrological connectivity to fry (freshwater) habitat.
					Out-migrating smolt abundance	No significant decline	No Likely Significant Effect – There will be no reduction in out-migrating smolt abundance as a result of the Draft Planning Scheme.
					Number and distribution of redds	No decline in number and distribution of spawning redds due to anthropogenic causes	No Likely Significant Effect – The Draft Planning Scheme will not affect the number and distribution of spawning redds as the North Quays SDZ has no hydrological connectivity to spawning (freshwater) habitat
					Water quality	At least Q4 at all sites sampled by the EPA	Likely Significant Effect – Accidental pollution resulting in a reduction in water quality cannot be ruled out.
European Otter (<i>Lutra lutra</i>) [1355]	This species occurs immediately adjacent to the North Quays SDZ, in the River Suir.	The Otter is a large carnivore with a long, slim body, short legs with webbed feet and a tapered tail. Adult males can reach 1 m in length and 10 kg in weight. 45 SACs are designated for this species in the Member State, containing 468–660 of the country's c. 7,218–10,186 breeding females. Population size within the Lower River Suir SAC was not determined in the last national survey (Reid <i>et al.</i> , 2013). The River Barrow, which is 6km downstream of the Plan, is one of the more important river systems for Otter (Bailey & Rochford, 2006). The overall conservation status of the species is considered Favourable, with road mortalities constituting the major pressure at present (NPWS, 2009).	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, potential pathways of risk are considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of European Otter in the Lower River Suir SAC (NPWS, 2017b)	Distribution	No significant decline	No Likely Significant Effect – The Draft Planning Scheme is unlikely to result in a decline in distribution.
					Extent of terrestrial, freshwater and marine habitat	No significant decline	No Likely Significant Effect – The Draft Planning Scheme will not result in a significant decline of terrestrial, freshwater or marine habitat.
					Couching sites and holts	No significant decline	No Likely Significant Effect – The November 2016 survey did not identify any evidence of Otter breeding within derogation limits (250m) of the North Quays SDZ. There will not be any significant loss of couches or holts as a result of the Draft Planning Scheme.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Fish biomass available	No significant decline	No Likely Significant Effect – There will not be a significant change to the fish biomass available to Otter as a result of the Draft Planning Scheme.
					Barriers to connectivity	No significant increase	Likely Significant Effect – The November 2016 survey identified signs of Otter along the North Quay Wall. Alteration of the North Quay Wall has the potential to result in temporary or long-term barriers to connectivity at this location.

Table 3.3 Screening Matrix for the River Barrow and River Nore SAC. Source: NPWS (2013d,e), unless specifically referenced. * = a “priority habitat” in danger of disappearing from the EU. Numbers in square brackets are Natura 2000 codes

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Estuaries [1130]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	The estuary is the downstream part of a river valley, subject to the tide and extending from the limit of brackish waters. River estuaries are coastal inlets where there is generally a significant freshwater influence. Muddy to sandy substrates are the most common estuarine substrates in an Irish context and this is reflected in the biological communities occurring. 19 SACs are designated for Estuaries in the Member State. It is estimated that a total of 67,400ha of Estuaries occurs within the Natura 2000 network. This habitat forms c. 20% (2,474.63ha) of the River Barrow and River Nore SAC, equivalent to c. 3.7% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and "improving". The major pressures on Irish estuaries include pollution to surface waters, fishing and harvesting of aquatic resources and bottom culture.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Estuaries in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Estuaries, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Mudflats and sandflats not covered by seawater at low tide [1140]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	This habitat is found exclusively between the low water and mean high water marks. It is often part of the Annex I habitats Large shallow and bay and Estuaries but can occur independently. The fine sediment of intertidal mudflats is most often associated with rivers. Biological communities found in this habitat are very similar to those found in estuaries (above). 42 SACs are designated for Tidal mudflats in the Member State. It is estimated that a total of 53,700ha of the habitat type occurs within the Natura 2000 network. This habitat forms c. 4.0% (494.93ha) of the River Barrow and River Nore SAC, equivalent to c. 0.9% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but "improving". The major pressures on this habitat include pollution to surface waters, fishing and harvesting of aquatic resources and bottom culture.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of the Mudflats and sandflats not covered by seawater at low tide in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Mudflats and sandflats not covered by seawater at low tide, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
<i>Salicornia</i> and other annuals colonizing mud and sand [1310]	This habitat type is potentially present approximately 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	<i>Salicornia</i> is a pioneer saltmarsh community that may occur on muddy sediment seaward of established saltmarsh, or form patches within other saltmarsh communities where the elevation is suitable and there is regular tidal inundation. In Ireland, three sub-types are recognised: <i>Salicornia</i> type, <i>Suaeda</i> type and the much rarer <i>Sagina</i> type. Mono-specific swards of <i>Salicornia</i> spp. growing on muddy sediments are the most common plant community belonging to this Annex I habitat type found in Ireland. As this habitat is dominated by annuals it can be ephemeral or transient in nature and is highly susceptible to erosion. Its distribution can vary considerably from year to year and it can move in response to changing conditions, e.g. in estuaries with shifting river channels. 23 SACs are designated for <i>Salicornia</i> mud in the Member State. It is estimated that a total of 170–183ha of this habitat occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the River Barrow and River Nore SAC, equivalent to c.67.6–72.8% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and "declining", owing to pressures and threats such as invasive species, intensive grazing, pollution and changes in abiotic conditions.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest	To maintain the favourable conservation condition of <i>Salicornia</i> and other annuals colonizing mud and sand in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and <i>Salicornia</i> and other annuals colonizing mud and sand, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	Atlantic salt meadows generally occupy the widest part of the saltmarsh gradient. They exhibit a distinctive topography with an intricate network of creeks and salt pans occurring on the larger marshes. This habitat contains several distinctive zones that are related to elevation and frequency of submergence. The lowest part along the tidal zone is generally dominated by common saltmarsh-grass (<i>Puccinellia maritima</i>). This habitat is also important for other wildlife including wintering waders and wildfowl. Atlantic salt meadows are distributed around most of the coastline of Ireland. 38 SACs are designated for Atlantic salt meadows in the Member State. It is estimated that a total of 1,479–2,590ha of this habitat occurs within the Natura 2000 network. This habitat forms c. 1% (123.73ha) of the River Barrow and River Nore SAC, equivalent to c.4.8–8.4% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but 'stable', owing to pressures and threats such as intensive grazing and paths/tracks and cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest	To restore the favourable conservation condition of Atlantic salt meadows in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Atlantic salt meadows, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Mediterranean salt meadows (<i>Juncetalia maritim</i>) [1410]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	Mediterranean salt meadows occupy the upper zone of saltmarshes and usually occur adjacent to the boundary with terrestrial habitats. They are widespread on the Irish coastline but are not as extensive as Atlantic salt meadows. The habitat is distinguished from Atlantic salt meadows by the presence of rushes such as sea rush (<i>Juncus maritimus</i>) and/or sharp rush (<i>J. acutus</i>), along with a range of species typically found in Atlantic salt meadows, including sea aster (<i>Aster tripolium</i>), sea purslane (<i>Atriplex portulacoides</i>), sea-milkwort (<i>Glaux maritima</i>), saltmarsh rush (<i>J. gerardi</i>), parsley water-dropwort (<i>Oenanthe lachenalii</i>), sea plantain (<i>Plantago maritima</i>) and common saltmarsh-grass (<i>Puccinellia maritima</i>). 33 SACs are designated for this habitat type in the Member State. It is estimated that a total of 577–591ha of Mediterranean salt meadows occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the River Barrow and River Nore SAC, equivalent to c.21% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but 'stable', owing to pressures and threats such as intensive cattle grazing and walking/cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest	To restore the favourable conservation condition of Mediterranean salt meadows in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Mediterranean salt meadows, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Water courses of plain to montane levels with the <i>Ranuncullon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is at least 35km from the North Quays SDZ, upstream of the confluence of the River Suir and River Barrow, above St Mullins.	The description of this habitat type is broad, covering rivers from upland bryophyte and macroalgal-dominated stretches, to lowland depositing rivers with pondweeds and starworts. Selection of SACs for this habitat in Ireland has used this broad interpretation. 21 SACs are designated for Floating river vegetation in the Member State. It is estimated that a total of 3,246ha of Floating river vegetation occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the River Barrow and River Nore SAC, equivalent to c.3.8% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and "declining" due to numerous pressures, including pollution from agricultural, forestry and industrial sources, as well as modification of hydrological regimes.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Water courses of plain to montane levels with the <i>Ranuncullon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Water courses of plain to montane levels with the <i>Ranuncullon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
European dry heaths [4030]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is at least 35km from the North Quays SDZ and in pockets along the Barrow Valley in the foothills of the Blackstairs Mountains.	Dry heaths comprise vegetation dominated by ericaceous dwarf shrubs and usually occur on well-drained, nutrient-poor and acidic mineral soils or shallow peats on sloping ground (typically less than 50 cm deep). <i>Calluna vulgaris</i> is usually the main species but <i>Erica cinerea</i> , <i>Ulex galili</i> and <i>Vaccinium myrtillus</i> may also be important components. Dry heaths occur from sea level up to around 400 m. 48 SACs are designated for Dry heaths in the Member State. It is estimated that a total of 63,074ha of Dry heaths occurs within the Natura 2000 network. This habitat forms c.1% (123.73ha) of the River Barrow and River Nore SAC, equivalent to c.0.2% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "stable". Pressures acting on this habitat include burning and sheep grazing.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of European dry heaths in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and European dry heaths, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is at least 35km from the North Quays SDZ, upstream of the confluence of the River Suir and River Barrow, above St Mullins.	Three distinct communities can be considered for this habitat in Ireland. In the lowlands, it occurs as a community of watercourses, particularly unmanaged edges of slow-moving rivers and the margins of lakes. Nutrient levels may be naturally high. The community is dominated by tall hydrophilous herbs and horsetails (<i>Equisetum</i> spp.) are a common feature, but monospecific stands are not including Reed beds, large sedge swamps, large areas of fallow wet meadow are excluded from the classification.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Petrifying springs with tufa formation (<i>Cratoneurion</i>) [*] [7220]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 45km from the North Quays SDZ, at Dysart Wood along the River Nore.	Tufa formation is associated with hard-water springs, where groundwater rich in calcium bicarbonate comes to the surface. On contact with the air, carbon dioxide is lost from the water and a hard deposit of calcium carbonate (tufa) is formed. 19 SACs are designated for Petrifying springs in the Member State. It is estimated a total of 11.4ha of Petrifying spring occurs within the Natura 2000 network. The exact area of this priority habitat and an equivalent estimate of the entire national Natura 2000 contribution within the SAC for this QI is not known.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Petrifying springs with tufa formation (<i>Cratoneurion</i>) in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Petrifying springs with tufa formation (<i>Cratoneurion</i>), the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 15km upstream, along a tributary of the River Barrow.	Best examples of old oak woodlands on the Barrow occur at Cloughristic Wood, Drummond Wood and Borris Demesne. Old oak woodlands are defined in the interpretation manual of EU habitats as "acidophilous <i>Quercus petraea</i> woods, with low, low-branched, trees, with many ferns, mosses, lichens and evergreen bushes". 40 SACs are designated for this habitat type in the Member State and it is estimated that a total of 3,899ha of the habitat type occurs within the Natura 2000 network. This habitat forms c. 1.0% (123.73 ha) of the SAC, equivalent to c.3.1 % of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "improving".	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	The nearest occurrence of this habitat type within the River Barrow and River Nore SAC is 45km from the North Quays SDZ, at Dysart Wood along the River Nore.	Residual alluvial forests occur on heavy soils that are periodically inundated by the annual rise of river levels, but which are otherwise well drained and aerated during low water. 25 SACs are designated for this habitat type in the Member State. It is estimated that a total of 1,046 ha of 91E0 occurs within the Natura 2000 network. This habitat forms c. 1.0% (123.73ha) of the SAC, equivalent to c. 11.82% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "improving".	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and this habitat type, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance and lack of hydrological connectivity between the North Quays SDZ and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) [1016]	There is no suitable habitat within the North Quays SDZ. The nearest known location within the River Barrow and River Nore SAC is 60km upstream at Borris, on the River Barrow.	Desmoulin's whorl snail <i>Vertigo moulinsiana</i> is the largest <i>Vertigo</i> species, with a shell height up to about 2.6mm. It is restricted to calcareous wetlands, usually bordering lakes or rivers, or in fens. 7 SACs are designated for this species within the Member State. Population size cannot be estimated for <i>Vertigo</i> snails so the NPWS approach is to use area of habitat as a surrogate measure. National habitat cover for this species is estimated between 24 and 28ha. Moorkens (2011) estimated the area of habitat at the Borris site as c. 1.13ha. A previous study of this SAC was found to have an unfavourable extent of optimal habitat for <i>V. moulinsiana</i> (Moorkens, 2007).	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Desmoulin's Whorl Snail in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and Desmoulin's Whorl Snail, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) [1029]	The tidal influence at the North Quays SDZ is unsuitable for this species. Distribution data shows the nearest population to be at least 80km from the North Quays SDZ, in the River Nore near Ballyragget.	The Freshwater pearl mussel <i>Margaritifera margaritifera</i> grows to 140 mm in length, and burrows into sandy substrates, often between boulders and pebbles, in fast-flowing rivers and streams. It requires cool, well-oxygenated soft water free of pollution or turbidity. The mussel spends its larval, or glochidial, stage attached to the gills of Salmonid fishes. This species does not reach reproductive maturity until at least 12 years old and may live for over 120 years, therefore population age-structure is vitally important when assessing viability. This species has undergone severe population decline and, in many cases, unable to reproduce because of poor water quality. An estimated 9.7 million adult mussels occur in the 19 SAC designated for the protection of the species. This represents 89% of the national population. The overall conservation status of this species is considered to be Bad and Unfavourable.	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	The status of Freshwater Pearl Mussel as a Qualifying Interest of the River Barrow and River Nore SAC is under review; a site-specific Conservation Objective has not yet been set for this Qualifying Interest (NPWS, 2011a)	The definition of favourable conservation condition in respect of species, as given in Section 3.2 above, was considered in the Screening process with regard to this Qualifying Interest.		No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and Freshwater Pearl Mussel, the Draft Planning Scheme will not compromise the restoration or maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
White-clawed Crayfish (<i>Austropotamobius pallipes</i>) [1092]	The tidal influence at the North Quays SDZ is unsuitable for this species. Distribution data shows the nearest population to be at least 50km, in the River Barrow near Graigueanmanagh.	White-clawed Crayfish is a large, long-lived freshwater crustacean. In other parts of Europe, it is mostly found in first-order streams. In Ireland, however, it has a wider habitat range, occurring in lakes, large rivers, streams and drains. The species is generally associated with good water quality, but it can occur at values as low as Q3. It prefers cool waters with adequate dissolved oxygen and lime, though tolerating significant fluctuations in these. Habitat heterogeneity accommodating this species' ontogeny has been identified as key to its persistence. It is highly vulnerable to aphanomycosis or "crayfish plague" caused by the oomycete <i>Aphanomyces astaci</i> , a major vector of which is the American signal crayfish. Ireland is a potential ark site for the conservation of white-clawed crayfish due to low instance of aphanomycosis and being the only European country free of invasive crayfish. 15 SACs are designated for this species in the Member State, though it is not present in 2 of those and there are a further 17 SACs in which this species occurs but is not listed as a QI. Population size within the River Barrow and River Nore SAC is not determined, nonetheless considered to be of important for the conservation of White-clawed crayfish. The overall conservation status of the species is considered inadequate but "stable", with major pressures/threats including disease and invasive species.	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore and maintain the favourable conservation condition of White-clawed Crayfish in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and White-clawed Crayfish, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.
Sea Lamprey (<i>Petromyzon marinus</i>) [1095]	This species is potentially present approximately 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	The Sea lamprey is a primitive anadromous fish species. Adults live at sea as external parasites on host fish. Migration to freshwater occurs in spring and spawning in June/July. Hatching of ammocoetes takes place within days and the immature lamprey swims or drifts downstream until it encounters an area of fine sediment into which it can burrow. Transformation to the adult stage occurs in late summer and young adults migrate downriver in late autumn/winter. Barriers to migration are seen as major negative impacts on this species. 12 SACs are designated for this species in the Member State. Population size within the River Barrow and River Nore SAC is not determined. However, King (2006) suggests a lower abundance and distribution compared to other main river systems and notes that barriers to suitable habitat further up the catchment may be a limitation on this population. The overall conservation status of the species is considered Bad but "stable", with major pressures/threats including canalisation and barriers to migration.	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of Sea Lamprey in the River Barrow and River Nore SAC (NPWS, 2011a)	Distribution: extent of anadromy Population structure of juveniles Juvenile density in fine sediment Extent and distribution of spawning habitat Availability of juvenile habitat	Greater than 75% of main stem length of rivers accessible from estuary At least three age/size groups present Juvenile density at least 1m ⁻² No decline in extent and distribution of spawning beds More than 50% of sample sites positive	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration. No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to spawning (freshwater) habitat.
Brook Lamprey (<i>Lampetra planeri</i>) [1096]	The tidal influence at the North Quays SDZ is unsuitable for this species. Distribution data shows the nearest population to be at least 50km, in the River Barrow near Graigueanmanagh.	The Brook lamprey is the smallest of the three lampreys recorded in Ireland. It is non-parasitic and non-migratory as an adult, living its entire life in freshwater. Adults spawn in spring and, after hatching, the ammocoetes drift or swim downstream before encountering areas of river bed with a fine silt composition. They burrow into this bed material and live as filter feeders over a period of years before transforming into young adult fish. The young adults overwinter before migrating short distances upstream to gravelled areas where they spawn and die. 10 SACs are designated for this species in the Member State. Population size within the River Barrow and River Nore SAC is not determined. The overall conservation status of the species is considered Favourable, with main pressures/threats including dredging and removal of sediments.	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of Brook Lamprey in the Lower River Suir SAC, as per the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and Brook Lamprey, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
River Lamprey (<i>Lampetra fluviatilis</i>) [1099]	This species is potentially present approximately 6km downstream of the North Quays SDZ, at the confluence of the River Suir and River Barrow.	The River and Brook lamprey are indistinguishable as larvae, living as filter feeders in sediment. The mature adult forms are clearly distinguishable on the basis of body size. 10 SACs are designated for this species in the Member State. Major pressures/threats to River lamprey include both diffuse and point-source pollution, invasive species, dredging and barriers to migration. The overall conservation status of the species is considered to be Favourable	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of River Lamprey in the River Barrow and River Nore SAC (NPWS, 2011a)	Distribution: extent of anadromy Population structure of juveniles Juvenile density in fine sediment Extent and distribution of spawning habitat Availability of juvenile habitat	> 75% of main stem and major tributaries down to 2 nd Order accessible from estuary At least three age/size groups of River/Brook Lamprey present Mean catchment juvenile density of Brook/River, Lamprey at least 2m ² No decline in extent and distribution of spawning beds More than 50% of sample sites positive	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration. No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to spawning (freshwater) habitat. No Likely Significant Effect – There will be no impact on juvenile density as a result of the Draft Planning Scheme as there is no hydrological connectivity to juvenile (freshwater) habitat.
Twaité Shad (<i>Alosa fallax</i>) [1103]	Acoustic tracking studies of Twaité Shad in Waterford Harbour undertaken by Inland Fisheries Ireland have shows that the River Suir at and downstream of the North Quays SDZ, including the confluence of the Rivers Suir and Barrow, supports an internationally important population of Twaité Shad.	The Twaité Shad is a large anadromous member of the herring family living in the lower reaches of estuaries or at sea as adults, feeding on juvenile fish and on crustaceans. Adult fish travel upriver in Irish estuaries and spawn at the upper tidal reaches in a series of rivers in the southeast. Eggs are fertilised externally and either drop to the bed or float in the water column. The eggs hatch after a short period and young can reach up to 100 mm by the end of the first year. Irish Twaité Shad may live in estuarine waters for at least 2 years before going to sea. 4 SACs are designated for this species in the Member State. The only known spawning location of Twaité Shad occurs in the Barrow North of St Mullins (Doherty <i>et al.</i> , 2004). A habitat survey at the spawning area on the R. Barrow in 2010 indicated a wide range of bed conditions including some areas with extensive filamentous algal cover, others with moss or other aquatic plants and further sites with a loosely-textured gravel-cobble bed. The information compiled since 2000 points to a strong annual spawning presence of Twaité Shad in the Barrow. The populations of Shad on the Barrow, are relatively stable, based on angling and post-larval surveys. It is suggested that in excess of 95% of the Irish population of Twaité Shad occurs within the SAC network designated for this species and that the current network is adequate and appropriate for the species, in the context of maintaining adequate conservation status. The overall conservation status of the species is considered 'stable', with major pressures/threats including invasive species, fishing and inbreeding.	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir, directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.	To restore the favourable conservation condition of Twaité Shad in the River Barrow and River Nore SAC (NPWS, 2011a)	Distribution: extent of anadromy Population structure: age classes Extent and distribution of spawning habitat Water quality: oxygen levels Spawning habitat quality: Filamentous algae; macrophytes; sediment	Greater than 75% of main stem length of rivers accessible from estuary More than one age class present No decline in extent and distribution of spawning habitats No lower than 5mg/l Maintain stable gravel substrate with very little fine material, free of filamentous algal (macroalgae) growth and macrophyte (rooted higher plants) growth	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration. No Likely Significant Effect – There will be no impact on population structure as a result of the Draft Planning Scheme as the North Quays SDZ is located at least 12km downstream of spawning habitat. No Likely Significant Effect – The Draft Planning Scheme will not impact on any spawning habitat as the North Quays SDZ is located at least 12km downstream of suitable habitat. Likely Significant Effect – Accidental pollution resulting in a reduction in water quality cannot be ruled out. No Likely Significant Effect – The Draft Planning Scheme will not impact on any spawning habitat as the North Quays SDZ is located at least 12km downstream of suitable habitat.
Atlantic Salmon (<i>Salmo salar</i>) [1106]	The River Suir adjacent to the North Quays SDZ and downstream, including the confluence of the Rivers Suir and Barrow, supports	The Atlantic salmon is an anadromous species indigenous to the North Atlantic. Salmon use rivers to reproduce and as nursery areas during their juvenile phase. Adults spend 1 to 3 years at sea where growth rates are much greater. The Irish population generally comprises fish that spend 2 winters in freshwater before going to sea in April-June. The majority of fish fish spend 1 winter at sea before returning to their natal rivers, mainly during the summer. Smaller numbers spend 2 winters at sea, returning	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, the location and nature of sources of risk (i.e. pollution and sedimentation during construction in and adjacent to the River Suir,	To restore and maintain the favourable conservation condition of Atlantic Salmon in the River Barrow and River Nore SAC (NPWS, 2011a)	Distribution: extent of anadromy Number of adult spawning fish	100% of river channels down to 2 nd order accessible from estuary Conservation Limit for each system consistently exceeded	No Likely Significant Effect – The nature of development envisaged by the Draft Planning Scheme will not result in any additional barrier to migration. No Likely Significant Effect – There will be no change to the abundance of spawning adult fish as a result of the Draft Planning Scheme.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
	migrating Atlantic Salmon.	mainly in spring. A small proportion of the adult population returns to sea post-spawning and can spawn again. 26 SACs are designated for this species in the Member State, containing between c.97,643 and c.146,464 individuals of the national population of c.244,107. The Barrow/Nore is mainly a grise fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistloge on the Nore. The upper stretches of the Barrow and Nore, particularly the Owenass River, are very important for spawning. The overall conservation status of the species is considered inadequate but "stable", with major pressures/threats including agricultural intensification, disposal of household/recreational facility waste, poaching and pollution due to agriculture, forestry, household sewage and waste waters.	directly upstream of the River Barrow) and the sensitivity of this species to pollution and sedimentation.		Fry abundance	Maintain or exceed mean catchment-wide 0+ fry abundance threshold (17 fry per 5-min sample)	No Likely Significant Effect – The Draft Planning Scheme is unlikely to alter small fry abundance as the North Quays SDZ has no hydrological connectivity to fry (freshwater) habitat.
					Smolt abundance	No significant decline	No Likely Significant Effect – There will be no reduction in out-migrating smolt abundance as a result of the Draft Planning Scheme.
					Number and distribution of redds	No decline in number and distribution of spawning redds due to anthropogenic causes	No Likely Significant Effect – The Draft Planning Scheme will not affect the number and distribution of spawning redds as the North Quays SDZ has no hydrological connectivity to spawning (freshwater) habitat
					Water quality	At least Q4 at all sites sampled by the EPA	Likely Significant Effect – Accidental pollution resulting in a reduction in water quality cannot be ruled out.
European Otter (<i>Lutra lutra</i>) [1355]	This species occurs immediately adjacent to the North Quays SDZ, in the River Suir. Otter may move between the North Quays SDZ and the River Barrow and River Nore SAC.	The Otter is a large carnivore with a long, slim body, short legs with webbed feet and a tapered tail. Adult males can reach 1m in length and 10kg in weight. Otter home ranges can be in excess of 20km depending of food availability. Dramatic declines occurred in many European populations during the latter half of the 20 th Century. As a result, otters became extinct in several countries. However, Ireland has remained a strong-hold for the species. 45 SACs are designated for this species in the Member State, containing 468-660 of the country's c. 7,218-10,186 breeding females. Population size within the River Barrow and River Nore SAC was not determined in the last national survey (Reid <i>et al.</i> , 2013). The River Barrow is one of the more important river systems for Otter (Bailey & Rochford, 2006). The overall conservation status of the species is considered Favourable, with road mortalities constituting the major pressure at present.	Yes – Given the proximity of the North Quays SDZ to this Qualifying Interest, potential pathways of risk are considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To restore the favourable conservation condition of European Otter in the River Barrow and River Nore SAC (NPWS, 2011a)	Distribution	No significant decline	No Likely Significant Effect – The Draft Planning Scheme is unlikely to result in a decline in distribution.
					Extent of terrestrial, freshwater and marine habitat	No significant decline	No Likely Significant Effect – The Draft Planning Scheme will not result in a significant decline of terrestrial, freshwater or marine habitat.
					Couching sites and holls	No significant decline	No Likely Significant Effect – The November 2016 survey did not identify any evidence of Otter breeding within derogation limits (250m) of the North Quays SDZ. There will not be any significant loss of couches or holls as a result of the Draft Planning Scheme.
					Fish biomass available	No significant decline	No Likely Significant Effect – There will not be a significant change to the fish biomass available to Otter as a result of the Draft Planning Scheme.
					Barriers to connectivity	No significant increase	Likely Significant Effect – The November 2016 survey identified signs of Otter along the North Quay Wall. Alteration of the North Quay Wall has the potential to result in temporary or long-term barriers to connectivity at this location.
Killarney Fern (<i>Trichomanes speciosum</i>) [1421]	The nearest occurrence of this species within the River Barrow and River Nore SAC is 45km from the North Quays SDZ, at Dysart Wood.	Killarney fern <i>Trichomanes speciosum</i> is a medium-sized, long-lived fern with delicate, translucent fronds arising from a creeping rhizome. It is restricted to damp, shady and humid habitats and is extremely sensitive to desiccation. There are currently 64 extant populations in the Republic of Ireland, the majority being located in the south/south-west in County Kerry, Cork, Limerick, Tipperary and Waterford. There are 18 SACs designated for this species in the Member State. Of the 177 colonies where <i>Trichomanes speciosum</i> is known to occur, 153 (or 86.4%) are currently in SACs. Of the 24 that are not, 18 comprise gametophytes only. Killarney Fern occurs at only a few locations within the River Barrow and River Nore SAC. As there is no evidence of a decline in population size and the conservation status is assessed as Favourable.	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To maintain the favourable conservation condition of Killarney Fern in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.	No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and Killarney Fern, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.	

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Nore Freshwater Pearl Mussel (<i>Margaritifera durrovensis</i>) [1990]	The nearest population is at least 80km from the North Quays SDZ, in the River Nore near Ballyragget.	This is the only site in the world for the hard-water form of the Freshwater Pearl Mussel, the Nore Pearl Mussel <i>M. durrovensis</i> (Moorkens & Costello, 1994).	No – Given the distance and lack of hydrological connectivity between the North Quays SDZ and this species, pathways of risk are not considered to exist between the Draft Planning Scheme and this Qualifying Interest.	To restore the favourable conservation condition of the Nore Freshwater Pearl Mussel in the River Barrow and River Nore SAC (NPWS, 2011a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the distance and lack of hydrological connectivity between the North Quays SDZ and Nore Freshwater Pearl Mussel, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the River Barrow and River Nore SAC.

Table 3.4 Screening Matrix for the Tramore Dunes and Backstrand SAC. Source: NPWS (2013d,e), unless specifically referenced. * = a “priority habitat” in danger of disappearing from the EU. Numbers in square brackets are Natura 2000 codes

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Mudflats and sandflats not covered by seawater at low tide [1140]	The nearest occurrence of this habitat type is potentially 10.5km from the North Quays SDZ.	This habitat is found exclusively between the low water and mean high water marks. It is often part of the Annex I habitats Large shallow and bay and Estuaries but can occur independently. The fine sediment of intertidal mudflats is most often associated with rivers. Biological communities found in this habitat are very similar to those found in estuaries (above). 42 SACs are designated for Tidal mudflats in the Member State. It is estimated that a total of 53,700ha of the habitat type occurs within the Natura 2000 network. This habitat forms c. 73% (548 ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 1 % of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but “improving”. The major pressures on this habitat include pollution to surface waters, fishing and harvesting of aquatic resources and bottom culture.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of the Mudflats and sandflats not covered by seawater at low tide in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Mudflats and sandflats not covered by seawater at low tide, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.
Annual vegetation of drift lines [1210]	The nearest occurrence of this habitat is 12km from the North Quays SDZ, at the Tramore Burrow.	This type of vegetation occurs on sandy, shingle or stony substrate at the upper part of the strand, around the high tide mark. Water-borne material including organic matter is deposited on the shore and provides nutrients and a seed source for vegetation. The vegetation predominantly consists of annual species, such as <i>Atriplex</i> species, <i>Cakile maritima</i> and <i>Salsola kali</i> , which are highly specialised to deal with the harsh conditions of high salinity, wind exposure and drought. In Ireland, the habitat includes drift line vegetation on sandy substrates as well as drift line vegetation dominated by annuals found on shingle. 27 SACs are designated for Reefs in the Member State. It is estimated that a total of 39ha of 1210 occurs within the Natura 2000 network. This habitat forms c. 0.06% (0.43ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 1% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and “declining”. The main pressures acting on this habitat is sea defence or coast protection works, tidal barrages.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of the Annual vegetation of drift lines in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Annual vegetation of drift lines, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Perennial vegetation of stony banks [1220]	The nearest occurrence of this habitat is 12km from the North Quays SDZ, at Tramore Beach.	This habitat occurs along the coast where shingle (cobbles and pebbles) and gravel have accumulated to form elevated ridges or banks above the high tide mark. The vegetation tends to be dominated by perennial species. Sand and gravel extraction, removal of beach materials, disposal of inert materials, energy transport: pipe lines, other forms or mixed forms of pollution, landfill, land reclamation and drying out and coastal protection works are considered as pressures on this habitat. 36 SACs are designated for Perennial vegetation of stony banks in the Member State. It is estimated that a total of 20-120ha of 1220 occurs within the Natura 2000 network. This habitat forms c. 1% (7.53ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 6-37% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and "stable". The major pressures acting on this habitat are removal of beach materials and sea defence or coast protection works and tidal barrages.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of the Perennial vegetation of stony banks in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Perennial vegetation of stony banks, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.
Salicornia and other annuals colonising mud and sand [1310]	The nearest occurrence of this habitat type is potentially 10.6km from the North Quays SDZ.	Salicornia mud is a pioneer saltmarsh community that may occur on muddy sediment seaward of established saltmarsh, or form patches within other saltmarsh communities where the elevation is suitable and there is regular tidal inundation. In Ireland, three sub-types are recognised: Salicornia type, Suaeda type and the much rarer Sagina type. Mono-specific swards of Salicornia spp. growing on muddy sediments are the most common plant community belonging to this Annex I habitat type found in Ireland. As this habitat is dominated by annuals it can be ephemeral or transient in nature and is highly susceptible to erosion. Its distribution can vary considerably from year to year and it can move in response to changing conditions, e.g. in estuaries with shifting river channels. 23 SACs are designated for Salicornia mud in the Member State. It is estimated that a total of 170–183ha of this habitat occurs within the Natura 2000 network. This habitat forms c. 0.13% (0.99ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 0.57-0.58% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate and "declining", owing to pressures and threats such as invasive species, intensive grazing, pollution and changes in abiotic conditions.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To restore the favourable conservation condition of Salicornia and other annuals colonizing mud and sand in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Salicornia and other annuals colonizing mud and sand, the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.
Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]	The nearest occurrence of this habitat type is potentially 10.6km from the North Quays SDZ.	Atlantic salt meadows generally occupy the widest part of the saltmarsh gradient. They exhibit a distinctive topography with an intricate network of creeks and salt pans occurring on the larger marshes. This habitat contains several distinctive zones that are related to elevation and frequency of submergence. The lowest part along the tidal zone is generally dominated by common saltmarsh-grass (Puccinellia maritima). This habitat is also important for other wildlife including wintering waders and wildfowl. Atlantic salt meadows are distributed around most of the coastline of Ireland. 38 SACs are designated for Atlantic salt meadows in the Member State. It is estimated that a total of 1,479–2,590ha of this habitat occurs within the Natura 2000 network. This habitat forms c. 4% (30.29ha) of the Tramore Dunes and Backstrand SAC, equivalent to c .2–4% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but "stable", owing to pressures and threats such as intensive grazing and paths/tracks and cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of Atlantic salt meadows in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Atlantic salt meadows, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Mediterranean salt meadows (Juncetalia maritimi) [1410]	The nearest occurrence of this habitat type is potentially 10.6km from the North Quays SDZ.	Mediterranean salt meadows occupy the upper zone of saltmarshes and usually occur adjacent to the boundary with terrestrial habitats. They are widespread on the Irish coastline but are not as extensive as Atlantic salt meadows. The habitat is distinguished from Atlantic salt meadows by the presence of rushes such as sea rush (<i>Juncus maritimus</i>) and/or sharp rush (<i>J. acutus</i>), along with a range of species typically found in Atlantic salt meadows, including sea aster (<i>Aster tripolium</i>), sea purslane (<i>Atriplex portulacoides</i>), sea-milkwort (<i>Glaux maritima</i>), saltmarsh rush (<i>J. gerardii</i>), parsley water-dropwort (<i>Oenanthe lachenalii</i>), sea plantain (<i>Plantago maritima</i>) and common saltmarsh-grass (<i>Puccinellia maritima</i>). 33 SACs are designated for this habitat type in the Member State. It is estimated that a total of 577–591ha of Mediterranean salt meadows occurs within the Natura 2000 network. This habitat forms c.0.2% (1.54ha) of the Tramore Dunes and Backstrand SAC, equivalent to c.0.261-0.267% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but "stable", owing to pressures and threats such as intensive cattle grazing and walking/cycling tracks.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of Mediterranean salt meadows the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Mediterranean salt meadows, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.
Embryonic shifting dunes [2110]	The nearest occurrence of this habitat is 12km from the North Quays SDZ, at the Tramore Burrow.	Embryonic shifting dunes are low sand mounds (generally less than a metre high) occurring between the high tide mark and Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]. They are unstable habitats where wind-blown sand is common and they are still vulnerable to saltwater intrusion. They represent the initial phase of dune formation and typically form where sand gathers around salt-tolerant species. 36 SACs are designated for this Embryonic shifting dunes in the Member State. It is estimated that a total of 169ha of 2110 occurs within the Natura 2000 network. This habitat forms c. 0.6% (4.3ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 2.5% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but "stable" due to habitat loss. The main pressures on embryonic dunes are linked to interference with natural dynamics and sediment supply, as well as recreational activities and trampling.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of the Embryonic shifting dunes in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Embryonic shifting dunes, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]	The nearest occurrence of this habitat is 12km from the North Quays SDZ, at the Tramore Burrow.	These dunes are partly stabilised and dominated by Marram Grass <i>Ammophila arenaria</i> . They tend to be taller than Embryonic Shifting Dunes and form further inland from these. They are actively created by <i>Ammophila arenaria</i> , which traps sand, and vegetation cover is incomplete (Fossitt, 2000). The dunes can build and erode quickly because of the presence of bare sand, and they are sometimes referred to as mobile dunes. 46 SACs are designated for this habitat type in the Member State. It is estimated that 290ha of 2120 occurs within the Natura 2000 network. This habitat forms c. 0.5% (4.12ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 1.4% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate but "stable". The main pressures acting on this habitat include trampling, erosion, sea defences and other coastal constructions and changes in abiotic conditions.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To maintain the favourable conservation condition of the Shifting dunes along the shoreline with <i>Ammophila arenaria</i> in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Shifting dunes along the shoreline with <i>Ammophila arenaria</i> , the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	The nearest occurrence of this habitat is 12km from the North Quays SDZ, at the Tramore Burrow.	Fixed dunes are more stabilised areas of dune systems located inland from the mobile dune habitats, where the wind speed is reduced and the vegetation is removed from the influence of tidal inundation and salt spray. Sand mobility is greatly reduced in comparison to mobile dune habitats, leading to the development of fixed carpet of vegetation. Regional variations are evident and are determined by a combination of geomorphologic, edaphic, climatic and anthropogenic factors. Species diversity and plant distribution is controlled by a range of factors, including grazing intensities, moisture/nutrient gradients and disturbance. 44 SACs are designated for this habitat in the Member State. It is estimated that 6,276ha of 2130 occurs in the Natura 2000 network. It forms c. 7.6% (57.4ha) of the Tramore Dunes and Backstrand SAC, equivalent to c. 0.9% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "stable". The main pressures acting on this habitat include abandonment of pastoral systems, lack of grazing, invasive species and changes in abiotic conditions.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this habitat type, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Qualifying Interest.	To restore the favourable conservation condition of the Fixed coastal dunes with herbaceous vegetation (grey dunes) in the Tramore Dunes and Backstrand SAC (NPWS, 2013a)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013a) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Fixed coastal dunes with herbaceous vegetation (grey dunes), the Draft Planning Scheme will not compromise the restoration of the favourable conservation condition of this Qualifying Interest in the Tramore Dunes and Backstrand SAC.

Table 3.5 Screening Matrix for the Tramore Back Strand SPA. Source: NPWS (2013d,e), unless specifically referenced. * = a “priority habitat” in danger of disappearing from the EU. Numbers in square brackets are Natura 2000 codes

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	The Light-bellied Brent Goose is a small dark goose, with a black head, neck and breast, and dark-brown upperparts and pale underparts. It has almost whitish flanks, and small white crescent on the upperparts of the neck visible at close range. Current national wintering population estimates are 25 100 wintering individuals. 24 SPAs are designated for this species in the Member State. The SPA network is considered to support 22 951 wintering individuals. The baseline population size in the Tramore Back Strand SPA is 393 individuals. The main pressures acting on this species are outdoor sports and leisure activities, recreational activities, utility service lines and modification of cultivation practices.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Light-bellied Brent Goose in Tramore Back Strand SPA (NPWS, 2013c)		The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Light-bellied Brent Goose, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Golden Plover (<i>Pluvialis apricaria</i>) [A140]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	The global distribution of Golden Plovers is very much restricted to boreal regions of the western Palaearctic, with only a small extension further east. Golden Plovers generally breed between 60° –70° N, although nesting occurs significantly further south in Britain and Ireland (being the southernmost extent of the global range). Generally, within southern parts of the range the distribution is discontinuous. In winter, birds migrate south and westwards, with localised wintering occurring from North Africa and Iberia, east through the Mediterranean Basin to the Middle East and the shores of the Caspian Sea. Large numbers winter in Britain and Ireland, France and the Low Countries. Current national population estimates are between 134 and 156 breeding pairs. 36 SPAs are designated for this species in the Member State. The SPA network is considered to support 76 breeding pairs. The baseline population size in the Tramore Back Strand SPA is 2 924 individuals. The main pressures acting on this species are mining and quarrying, forest planting on open ground, grazing, interspecific faunal relations and slash and burn practices.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Golden Plover in Tramore Back Strand SPA (NPWS, 2013c)		The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.	No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Golden Plover, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Grey Plover (<i>Pluvialis squatarola</i>) [A141]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	Grey Plovers have a very restricted global distribution. They have an almost circumpolar breeding range, occurring in the high Arctic from the Kanin Peninsula east to the Bering Sea. In North America, they occur from Alaska to the western side of Baffin Island. Globally, there are five recognised biogeographic populations. Of these, birds occurring in Europe belong to the East Atlantic Flyway population which comprises those breeding in the western Russian high Arctic. These birds winter from the Wadden Sea, along the Atlantic coasts of Europe south to West Africa. Current national population estimates are 2,850 wintering individuals. 21 SPAs are designated for this species in the Member State. The SPA network is considered to support 2,453 individuals. The baseline population size in the Tramore Back Strand SPA is 299 individuals.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Grey Plover in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Grey Plover, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Lapwing (<i>Vanellus vanellus</i>) [A142]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	Lapwings have a wide global distribution throughout the temperate regions of Eurasia, from Britain, Ireland and Iberia in the west, to the Pacific coast of Russia at the Sea of Japan in the east. In Scandinavia, breeding extends North but through most of the range Lapwings breed further south. Lapwings breed in all European countries, although within the Mediterranean Basin their distribution is highly localized. Across most of the range, Lapwings are highly migratory, moving south at the end of the breeding season to winter. Recent declines in the breeding population have been reported in many parts of North-west Europe. Current national population estimates are 2000 breeding pairs. 23 SPAs are designated for this species in the Member State. The baseline population size in the Tramore Back Strand SPA is 3,308 individuals.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Lapwing in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Lapwing, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Dunlin (<i>Calidris alpina</i>) [A149]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	Dunlin have a wide global distribution around the Arctic, and are found in nearly all Arctic regions. In Europe, they also extend south to temperate regions where they are found in wetland habitats. Breeding Dunlin are characteristic of moorland and upland habitats and this is reflected in the species' breeding distribution. Current national wintering population estimates are 150 breeding pairs. 23 SPAs are designated for this species in the Member State. The SPA network is considered to support 62 breeding pairs. The baseline population size in the Tramore Back Strand SPA is 1,723 individuals. The main pressures acting on this species are modification of cultivation practices, mowing, fertilisation, grazing and interspecific faunal relations.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Dunlin in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Dunlin, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Black-tailed Godwit (<i>Limosa limosa</i>) [A156]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	The Black-tailed Godwit is very similar in size and shape to Bar-tailed Godwit, but the slightly longer, straighter bill, neck and legs give it a more elegant appearance. Its winter plumage is a similar greyish brown to Bar-tailed, but generally plainer, with less dark-centred feathers, especially on the wings. In flight, the similarities between the godwits disappears. Black-tailed shows a striking contrasting upperwing - mostly black with bold white wingbars, a square white rump and a black tail. It typically wades in shallow water on tidal mudflats and favours the inner, more silty parts of estuaries and inlets. It can occur in large flocks of several hundred birds. It is amber-listed in Ireland as the majority of Black-tailed Godwits winter at less than ten sites. Current national population estimates are 18,080 wintering individuals. 25 SPAs are designated for this species in the Member State. The SPA network is considered to support 16,752 wintering individuals. The baseline population size in the Tramore Back Strand SPA is 289 individuals. The main pressures acting on this species are marine and freshwater aquaculture.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Black-tailed Godwit in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Black-tailed Godwit, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	The Bar-tailed Godwit breeds in Arctic regions of Eurasia, from Northern Scandinavia, through high latitudes of Russia to the west coast of Alaska. It winters in North-western Europe south to southern Spain and Portugal. Bar-tailed Godwits are almost entirely coastal in their winter habits, feeding mainly on worms both on sandy and muddy shores. As a mid- to high-Arctic nesting species, significant between-year population changes might be expected as a consequence of variation in weather and predation pressures on breeding areas. Current national wintering population estimates are 11,890 individuals. 24 SPAs are designated for this species in the Member State. The SPA network is considered to support 10,951 individuals. The baseline population size in the Tramore Back Strand SPA is 367 individuals. The main pressures acting on this species are marine/freshwater aquaculture and changes in abiotic conditions.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Bar-tailed Godwit in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Bar-tailed Godwit, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Curllew (<i>Numenius arquata</i>) [A160]	The nearest occurrence of this species is potentially 10km from the North Quays SDZ.	The breeding distribution of Curlew is globally restricted to the temperate and boreal regions of Europe and Asia. The species breeds from Ireland and Britain in the west, across continental Europe to the Russian far east. In winter, Curlews migrate south from their breeding areas and occur widely, though sparsely on southern hemisphere coasts in the Northern winter. Despite its recent expansion into lowland agricultural habitats, the species is still more abundant in uplands and Northern regions where there are extensive areas of moorland and rough grazing. Current national wintering population estimates are 98 breeding pairs. 19 SPAs are designated for this species in the Member State. The baseline population size in the Tramore Back Strand SPA is 620 individuals.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Curlew in Tramore Back Strand SPA (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Curlew, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Tramore Back Strand SPA.
Wetland and Waterbirds [A999]	The nearest occurrence of this ecosystem is potentially 10km from the North Quays SDZ.	This site is designated for wetland and waterbirds because it contains wetland habitat of high ornithological importance for wintering waterfowl, with one species occurring in internationally important numbers and a further seven species having populations of national importance. High tide roosting sites, however, are limited. Wintering bird populations have been well monitored since the 1970s.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this ecosystem, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of wetland habitat in Tramore Back Strand SPA as a resource for the regularly occurring migratory waterbirds that utilise it (NPWS, 2013c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2013c) were reviewed as part of the Screening process.		No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Wetland and Waterbirds, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of wetland habitat in Tramore Back Strand SPA.

Table 3.6 Screening Matrix for the Mid-Waterford Coast SPA. Source: NPWS (2013d,e), unless specifically referenced. Numbers in square brackets are Natura 2000 codes

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Comorant (<i>Phalacrocorax carbo</i>) [A017]	The nearest occurrence of this species is potentially 14km from the North Quays SDZ.	Outside the breeding season (August to February), some Comorants remain in the vicinity of their colonies, while others move to sheltered, coastal or inland locations – mostly south and east of their breeding sites. Ringing analyses (Wernham <i>et al.</i> , in press) show that Comorants from Ireland move to continental Europe. There is significant movement of coastal breeding birds inland in winter. Overall its European population is classed as secure with a long term increasing trend in the Member State. Current national population estimates are 8720 wintering individuals. 22 SPAs are designated for this species in the Member State. The SPA network is considered to support 4,155. The baseline population size in the Mid-Waterford Coast SPA is 79 pairs. The main pressures acting on this species are fishing and harvesting aquatic resources.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Comorant in the Mid-Waterford Coast SPA, as per the Castlemaine Harbour SPA (NPWS, 2011b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011b) were reviewed as part of the Screening process.		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Comorant, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Mid-Waterford Coast SPA.

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Peregrine (<i>Falco peregrinus</i>) [A103]	The nearest occurrence of this species is potentially 14km from the North Quays SDZ.	Peregrine are a widespread resident species breeding on coastal and inland cliffs. Peregrine are vulnerable to persecution, collection and onshore renewable energy development. Overall its European population is considered to be increasing with a long term increasing trend in the Member State. Current national population estimates are 515 breeding pairs. 10 SPAs are designated for this species in the Member State. The SPA network is considered to support 74 breeding pairs. The baseline population size in the Mid-Waterford Coast SPA is 7 pairs. The main pressures acting on this species is renewable abiotic energy use and hunting.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	Site-specific Conservation Objectives have not yet been set for this Special Conservation Interest in any Natura 2000 site; therefore, the generic Conservation Objectives above apply (NPWS, 2016b)	The definition of favourable conservation condition in respect of species, as given in Section 3.2 above, was considered in the AA Screening process with regard to this Special Conservation Interest		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Peregrine, the Draft Planning Scheme will not compromise the restoration or maintenance of the favourable conservation condition of this Special Conservation Interest in the Mid-Waterford Coast SPA.
Herring Gull (<i>Larus argentatus</i>) [A184]	The nearest occurrence of this species is potentially 14km from the North Quays SDZ.	The Herring Gull is a large gull, which in adult plumage has light grey upperwings, showing black tips with white 'mirrors' (white at the very tips surrounded by black); the rest of the plumage is white. It breeds in colonies around the coast of Ireland and also inland in Co. Donegal and Co. Galway. Overall it's European and Irish population is considered Near Threatened with both a short and long term decreasing trend. Current national population estimates are 2,319 breeding pairs. 18 SPAs are designated for this species in the Member State. The SPA network is considered to support 1,584 breeding pairs. The baseline population size in the Mid-Waterford Coast SPA is 147 pairs. The main pressures acting on this species are fishing and harvesting of aquatic resources and marine water pollution.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain the favourable conservation condition of Herring Gull in the Mid-Waterford Coast SPA, as per the Saltee Islands SPA (NPWS, 2011c)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011c) were reviewed as part of the Screening process		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Herring Gull, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Mid-Waterford Coast SPA.
Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]	The nearest occurrence of this species is potentially 14km from the North Quays SDZ.	The Chough is essentially a coastal species with population strongholds in Cork, Kerry and Donegal (Gray <i>et al.</i> , 2003). The Chough is potentially vulnerable to agricultural change, particularly the abandonment of land, intensification and change in stock-rearing practices. Overall its European population is considered stable with a long term increasing trend within the Member State. 18 SPAs are designated for this species in the Member State. Current national population estimates are 839 breeding pairs. The SPA network is considered to support 546 breeding pairs. The baseline population size in the Mid-Waterford Coast SPA is 20 pairs. The main pressures acting this species are modification of cultivation practices and grazing.	No – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and this species, potential pathways of risk are not considered to exist between the Draft Planning Scheme and the Special Conservation Interest.	To maintain/ the favourable conservation condition of Chough in the Mid-Waterford Coast SPA, as per the Castlemaine Harbour SPA (NPWS, 2011b)	The detailed Attributes and Targets for this Conservation Objective (NPWS, 2011b) were reviewed as part of the Screening process		No Likely Significant Effect – Given the nature of the development envisaged by the Draft Planning Scheme and the distance between the North Quays SDZ and Chough, the Draft Planning Scheme will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Mid-Waterford Coast SPA.

3.3 Assessment of Likely Significant Effects

The assessment questions listed below have been sourced from *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* (EC, 2001) Box 4:

Describe the individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site:

The elements of the proposed Draft Planning Scheme likely to cause significant impacts on the Lower River Suir SAC and the River Barrow and River Nore SAC are those Principal Goals and Specific Objectives for development within the North Quays SDZ that do not address the potential for such development to impact on Natura 2000 sites or reinforce the requirement for assessment in accordance with Article 6(3) of the Habitats Directive. These elements of the Draft Planning Scheme provide for the potential input of pollutants, e.g. construction materials such as cement, into the Lower River Suir SAC, which flows into the River Barrow and River Nore SAC 6km downstream. The Draft Planning Scheme also has the potential to lead to increased noise and artificial lighting along the quays, which could influence Otter movements and may create a barrier to connectivity. No element of the Draft Planning Scheme has the potential to impact on the Tramore Dunes and Backstrand SAC, the Tramore Back Strand SPA or the Mid-Waterford Coast SPA.

Describe any likely direct, indirect or secondary impacts of the plan (either alone or in combination with other plans or projects) on the Natura 2000 site:

The provision of new infrastructure in the North Quay SDZ will require construction works within and immediately adjacent to the Lower River Suir SAC. This presents a risk of accidental pollution within the Lower River Suir SAC and the River Barrow and River Nore SAC. Such events could result in temporarily reduced water quality and increased sedimentation, potentially affecting habitat quality for aquatic Qualifying Interests of the sites, i.e. Twaite Shad and Atlantic Salmon. In addition, in-stream works may lead to temporary disturbance to species including Otter. Secondary impacts of the Draft Planning Scheme include an increase in barriers to connectivity for Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.

Describe any likely significant changes to the site:

In the absence of appropriate mitigation, the Draft Planning Scheme has the potential to cause changes to the baseline water quality within the Lower River Suir SAC and the River Barrow and River Nore SAC, potentially impacting on the populations of Twaite Shad and Atlantic Salmon in those sites. The Draft Planning Scheme also has the potential to cause changes in ambient noise and light levels in the vicinity of the North Quays SDZ, which may impede the movement of Otter past the site.

Describe any likely impacts on the Natura 2000 site as a whole:

No element of the Draft Planning Scheme is likely to result in significant impacts on the overall structure and function of the Lower River Suir SAC or the River Barrow and River Nore SAC.

Provide indicators of significance as a result of the identification of the effects above:

Given the baseline ecological conditions established during the surveys and the proximity of the North Quays SDZ to Annex I habitats and Annex II, IV and V species, the Draft Planning Scheme has the potential to result in likely significant effects on those Qualifying Interests for which the SACs are designated. Indicators of significance include: land take within the Lower River Suir SAC boundary; temporary

or higher levels of fragmentation to commuting European Otter; permanent increased levels of disturbance; temporary changes in water quality during the construction and operation of new developments within the North Quays SDZ. These effects are considered likely to be significant owing to the degree of connectivity between habitats and population of the species of interest within the SACs.

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known:

The proposed development of the North Quays SDZ has the potential, in the absence of appropriate mitigation, to give rise to likely significant effects on the populations of Twaite Shad, Atlantic Salmon and European Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC. Owing to the current stage (Draft Planning Scheme) of the planning and development process, the precise magnitude of these impacts cannot be known.

3.4 Lower River Suir SAC

This site is an SAC selected for the following habitats and species listed on Annexes I and II, respectively, of the Habitats Directive (* = a “priority habitat” in danger of disappearing from the EU; numbers in brackets are Natura 2000 codes):

- [1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritima*);
- [1410] Mediterranean salt meadows (*Juncetalia maritimi*);
- [3260] Water courses of plain to montane levels with the *Ranunculon fluitantis* and *Callitricho-Batrachion* vegetation;
- [6430] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels;
- [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles;
- [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)*;
- [91J0] *Taxus baccata* woods of the British Isles*;
- [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*);
- [1092] White-clawed Crayfish (*Austropotamobius pallipes*);
- [1095] Sea Lamprey (*Petromyzon marinus*);
- [1096] Brook Lamprey (*Lampetra planeri*);
- [1099] River Lamprey (*Lampetra fluviatilis*);
- [1103] Twaite Shad (*Alosa fallax*);
- [1106] Atlantic Salmon (*Salmo salar*); and,
- [1355] European Otter (*Lutra lutra*).

Alluvial wet woodland is a declining habitat type in Europe as a result of drainage and reclamation. The best examples of this type of woodland in the site are found on the islands just below Carrick-on-Suir and at Fiddown Island. Species occurring here include Almond Willow (*Salix triandra*), White Willow (*S. alba*), Rusty Willow (*S. cinerea* subsp. *oleifolia*), Osier (*S. viminalis*), Yellow Iris (*Iris pseudacorus*), Hemlock Water-dropwort (*Oenanthe crocata*), Wild Angelica (*Angelica sylvestris*), Pendulous Sedge (*Carex pendula*), Meadowsweet (*Filipendula ulmaria*) and Common Valerian (*Valeriana officinalis*). The terrain is littered with dead trunks and branches and intersected with small channels that carry small streams to the river. The bryophyte and lichen floras appear to be rich. A small plot is currently being coppiced and managed by the National Parks & Wildlife Service. In the drier areas, species such

as Ash (*Fraxinus excelsior*), Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*) and Blackthorn (*Prunus spinosa*) occur.

Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the floodplain of the river is intact. Characteristic species of the habitat include Meadowsweet, Purple Loosestrife (*Lythrum salicaria*), Marsh Ragwort (*Senecio aquaticus*), Ground Ivy (*Glechoma hederacea*) and Hedge Bindweed (*Calystegia sepium*).

Old oak woodlands are also of importance at the site. The best examples are seen in Portlaw Wood on both sides of the Clodiagh River. On the south side, the stand is more open and the oaks (mainly Pedunculate Oak, *Quercus robur*) are well grown and spreading. Ivy (*Hedera helix*) and Bramble (*Rubus fruticosus* agg.) are common on the ground, indicating relatively high light conditions. Oak regeneration is dense, varying in age from 0-40 years, and Holly (*Ilex aquifolium*) is common but mostly young. Across the valley, the trees are more closely spaced and poorly grown. There are no clearings; large oaks extend to the boundary wall. In the darker conditions, Ivy is much rarer and Holly much more frequent, forming a closed canopy in places. Oak regeneration is uncommon since there are few natural clearings. The shallowness of the soil on the north-facing slope probably contributes to the poor tree growth there. The acid nature of the substrate has induced a mountain-type oakwood community to develop. The site is quite species-rich, including an abundance of mosses, liverworts and lichens. The rare lichen *Lobaria pulmonaria*, an indicator of ancient woodlands, is found here.

Inchinsquillib Wood consists of three separate small sloping woodlands in a valley cut by the Multeen River and its tributaries. Two woodlands, both with an eastern aspect, are predominantly of Sessile Oak (*Quercus petraea*) and Hazel, with Downy Birch (*Betula pubescens*), Ash and Holly. The ground flora is quite mixed, with Wood-sedge (*Carex sylvatica*), Bluebell (*Hyacinthoides non-scripta*), Primrose (*Primula vulgaris*), Wood-sorrel (*Oxalis acetosella*), Pignut (*Conopodium majus*), Hard Fern (*Blechnum spicant*) and others. The base-poor nature of the underlying rock is masked to some extent by the overlying drift. The third woodlands, with a northern aspect, is a similar (although less mature) mixture of Sessile Oak, Birch and Holly. Here, the influence of the drift is marked, with the occurrence of Wood Anemone (*Anemone nemorosa*) amongst the ground flora.

Two stands of Yew (*Taxus baccata*) woods, a rare habitat in Ireland and the EU, occur within the site. These are on limestone ridges at Shanbally and Cahir Park. Both are in woods planted with non-native species, including conifers. However, the area at Cahir Park is substantial in size and includes some relatively undisturbed patches of wood and some very old trees. Regeneration of the Yew trees is mostly poor, due to competition from species such as Sycamore (*Acer pseudoplatanus*) and, at Shanbally, due to heavy grazing by goats. Other native species which occur with the Yew trees include Ash, Pedunculate Oak, Hazel and Spindle (*Euonymus europaeus*). Future prospects for these Yew woods are good as the sites are proposed for restoration under a Coillte EU LIFE programme.

Floating river vegetation is evident in the freshwater stretches of the River Suir and along many of its tributaries. Typical species found include Canadian Pondweed (*Elodea canadensis*), water-milfoils (*Myriophyllum* spp.), Fennel Pondweed (*Potamogeton pectinatus*), Curled Pondweed (*P. crispus*), Perfoliate Pondweed (*P. perfoliatus*), Pond Water-crowfoot (*Ranunculus peltatus*), other crowfoots (*Ranunculus* spp.) and the moss *Fontinalis antipyretica*. At a couple of locations

along the river Opposite-leaved Pondweed (*Groenlandia densa*) occurs. This species is protected under the Flora (Protection) Order, 2015.

The Aherlow River is fast-flowing and mostly follows a natural unmodified river channel. Submerged vegetation includes the aquatic moss *Fontinalis antipyretica* and Stream Water-crowfoot (*R. pencillatus*), while shallow areas support species such as Reed Canary-grass (*Phalaris arundinacea*), Brooklime (*Veronica beccabunga*) and Water Mint (*Mentha aquatica*). The river bank is fringed in places with Alder (*Alnus glutinosa*) and willows (*Salix* spp.).

The Multeen River is fast-flowing, mostly gravel-bottomed and appears to follow a natural, unmodified river channel. Water-crowfoots occur in abundance and the aquatic moss *Fontinalis antipyretica* is also common. In sheltered shallows, species such as Water-cress (*Nasturtium officinale*) and water-starworts (*Callitriche* spp.) occur. The river channel is fringed for most of its length with Alder, Willow and a narrow strip of marshy vegetation.

Salt meadows occur below Waterford City in old meadows where the embankment is absent, or has been breached, and along the tidal stretches of some of the in-flowing rivers below Little Island. There are very narrow, non-continuous bands of this habitat along both banks. More extensive areas are also seen along the south bank at Ballinakill, the east side of Little Island, and in three large salt meadows between Ballinakill and Cheekpoint. The Atlantic and Mediterranean sub-types are generally intermixed. The species list is extensive and includes Red Fescue (*Festuca rubra*), oraches (*Atriplex* spp.), Sea Aster (*Aster tripolium*), Sea Couch (*Elymus pycnanthus*), frequent Sea Milkwort (*Glaux maritima*), occasional Wild Celery (*Apium graveolens*), Parsley Water-dropwort (*Oenanthe lachenalii*), English Scurvygrass (*Cochlearia anglica*) and Sea Arrowgrass (*Triglochin maritima*). These species are more representative of the Atlantic sub-type of the habitat. Common Cord-grass (*Spartina anglica*) is frequent along the main channel edge and up the internal channels. The legally protected (Flora (Protection) Order, 2015) Meadow Barley (*Hordeum secalinum*) grows at the landward transition of the saltmarsh. Sea Rush (*Juncus maritimus*), an indicator of the Mediterranean salt meadows, also occurs.

Other habitats at the site include wet and dry grassland, marsh, reedswamp, improved grassland, coniferous plantations, deciduous woodland, scrub, tidal river, stony shore and mudflats. The most dominant habitat adjoining the river is improved grassland, although there are wet fields with species such as Yellow Iris, Meadowsweet, rushes (*Juncus* spp.), Meadow Buttercup (*Ranunculus acris*) and Cuckooflower (*Cardamine pratensis*).

Cabragh marshes, just below Thurles, lie in a low-lying tributary valley into which the main river floods in winter. Here there is an extensive area of Common Reed (*Phragmites australis*) with associated marshland and peaty fen. The transition between vegetation types is often well displayed. A number of wetland plants of interest occur, in particular the Narrow-leaved Bulrush (*Typha angustifolia*), Bottle Sedge (*Carex rostrata*) and Blunt-flowered Rush (*Juncus subnodulosus*). The marsh is naturally eutrophic but it has also the nutritional legacy of the former sugar factory, which discharged into it through a number of holding lagoons (since removed). Production is high, which is seen in the size of such species as Celery-leaved Buttercup (*Ranunculus sceleratus*), as well as in the reeds themselves.

The site is of particular conservation interest for the presence of a number of Annex II species, including Freshwater Pearl Mussel (both *Margaritifera margaritifera* and *M. durrovensis*), White-clawed Crayfish, Salmon, Twaité Shad (*Alosa fallax fallax*), Sea

Lamprey, Brook Lamprey and River Lamprey and Otter. This is one of only three known spawning grounds in the country for Twaite Shad.

Parts of the site have been identified as of ornithological importance for a number of Annex I (Birds Directive) species, including Greenland White-fronted Goose, Golden Plover, Whooper Swan and Kingfisher. Flocks are seen in Coolfinn Marsh and along the reedbeds and saltmarsh areas of the Suir. Coolfinn supports nationally important numbers of Greylag Goose on a regular basis, with numbers between 600 and 700 recorded. Other species occurring include Mallard, Teal, Wigeon, Tufted Duck, Pintail, Pochard, Little Grebe, Black-tailed Godwit, Oystercatcher, Lapwing, Dunlin, Curlew, Redshank, Greenshank and Green Sandpiper. Nationally important numbers of Lapwing were recorded at Faithlegg in the winter of 1996-1997. In Cabragh marshes, there is abundant food for surface feeding wildfowl. Widgeon, Teal and Mallard are numerous, and the latter has a large breeding population. In addition, less frequent species like Shoveler and Pintail occur and there are records for both Whooper and Bewick's swans. Kingfisher, a species listed on Annex I of the Birds Directive, occurs along some of the many tributaries throughout the site.

Land use at the site consists mainly of agricultural activities including grazing, silage production, fertilising and land reclamation. The grassland is intensively managed and the rivers are, therefore, vulnerable to pollution from run-off of fertilisers and slurry. Arable crops are also grown. Fishing is a main tourist attraction on stretches of the River Suir and some of its tributaries, and there are a number of angling clubs, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. The Aherlow River is a designated Salmonid Water under Directive 2006/44/EC of the European Parliament and of the Council of 6 September 2006 on the quality of fresh waters needing protection or improvement in order to support fish life (the Freshwater Fish Directive). Other recreational activities such as boating, golfing and walking are also popular. Several industrial developments, which discharge into the river, border the site, including three dairy-related operations and a tannery.

3.5 River Barrow and River Nore SAC

This site is an SAC selected for the following habitats and species listed on Annexes I and II, respectively, of the Habitats Directive (* = a "priority habitat" in danger of disappearing from the EU; numbers in brackets are Natura 2000 codes):

- [1130] Estuaries;
- [1140] Mudflats and sandflats not covered by seawater at low tide;
- [1170] Reefs;
- [1310] *Salicornia* and other annuals colonising mud and sand;
- [1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*);
- [1410] Mediterranean salt meadows (*Juncetalia maritimi*);
- [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation;
- [4030] European dry heaths;
- [6430] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels;
- [7220] Petrifying springs with tufa formation (*Cratoneurion*)*;
- [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles;
- [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)*;

- [1016] Desmoulin's Whorl Snail (*Vertigo moulinsiana*);
- [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*);
- [1092] White-clawed Crayfish (*Austropotamobius pallipes*);
- [1095] Sea Lamprey (*Petromyzon marinus*);
- [1096] Brook Lamprey (*Lampetra planeri*);
- [1099] River Lamprey (*Lampetra fluviatilis*);
- [1103] Twaite Shad (*Alosa fallax*);
- [1106] Atlantic Salmon (*Salmo salar*);
- [1355] European Otter (*Lutra lutra*);
- [1421] Killarney Fern (*Trichomanes speciosum*); and,
- [1990] Nore Freshwater Pearl Mussel (*Margaritifera durrovensis*).

Good examples of alluvial forest (a priority habitat) occur at Rathsnagadan, Murphy's of the River, Abbeyleix Estate and along other shorter stretches of both the tidal and freshwater elements of the site. Typical species seen include Almond Willow, White Willow, Rusty Willow, Crack Willow (*Salix fragilis*) and Osier, along with Yellow Iris, Hemlock Water-dropwort, Wild Angelica, Thin-spiked Wood-sedge (*Carex strigosa*), Pendulous Sedge, Meadowsweet, Common Valerian and the Red Data Book species Nettle-leaved Bellflower (*Campanula trachelium*).

A good example of petrifying springs with tufa formations occurs at Dysart Wood along the River Nore. This is a rare habitat in Ireland and one listed with priority status on Annex I of the Habitats Directive. These hard-water springs are characterised by lime encrustations, often associated with small waterfalls. A rich bryophyte flora is typical of the habitat and two diagnostic species, *Palustriella commutata* and *Eucladium verticillatum*, have been recorded.

The best examples of old oak woodlands are seen in the ancient Park Hill woodland in Abbeyleix Estate, at Kyleadohir on the Delour, Forest Wood House, Kylecorragh and Brownstown Woods along the River Nore, and at Cloghristic Wood, Drummond Wood and Borris Demesne along the River Barrow, though other patches occur throughout the site. Abbeyleix Woods is a large tract of mixed deciduous woodland which is one of the only remaining true ancient woodlands in Ireland. Historical records show that Park Hill has been continuously wooded since the 16th Century and has the most complete written record of any woodland in the country. It supports a variety of woodland habitats and an exceptional diversity of species including 22 native trees, 44 bryophytes and 92 lichens. It also contains eight indicator species of ancient woodlands. Park Hill is also the site of two rare plants, Nettle-leaved Bellflower and the moss *Leucodon sciurioides*. The rare myxomycete, *Licea minima* has been recorded from the woodland at Abbeyleix.

Oak woodland covers parts of the valley side south of Woodstock and is well developed at Brownsford, where the River Nore takes several sharp bends. The steep valley side is covered by oaks, Holly, Hazel and Downy Birch, with some Beech (*Fagus sylvatica*) and Ash. All the trees are regenerating through a cover of Bramble, Foxglove (*Digitalis purpurea*), Great Wood-rush (*Luzula sylvatica*) and Broad Buckler-fern (*Dryopteris dilatata*).

On the steep banks of the River Nore, about 5km west of New Ross, Kylecorragh Woods form a prominent feature in the landscape. This is an excellent example of relatively undisturbed, relict oak woodland with a very good tree canopy. The wood is damp and there is a rich and varied ground flora. At Brownstown a small mature

oak-dominated woodland occurs on a steep slope. There is younger woodland to the north and east of it and regeneration is evident throughout. The understorey is similar to the woods at Brownsford. The ground flora is developed on acidic, brown earth soil and comprises a thick carpet of Bilberry (*Vaccinium myrtillus*), Heather (*Calluna vulgaris*), Hard Fern, Common Cow-wheat (*Melampyrum pratense*) and Bracken (*Pteridium aquilinum*).

Borris Demesne contains a very good example of a semi-natural broadleaved woodland in very good condition. There is a high degree of natural re generation of oak and Ash through the woodland. At the northern end of the estate oak species predominate. Drummond Wood, also along the River Barrow, consists of three blocks of deciduous woods situated on steep slopes above the river. The deciduous trees are mostly oak species. The woods have a well-established understorey of Holly, and the herb layer is varied, with Bramble abundant. The whitebeam *Sorbus devoniensis* has also been recorded here.

Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the floodplain of the river is intact. Characteristic species of the habitat include Meadowsweet, Purple Loosestrife, Marsh Ragwort, Ground Ivy and Hedge Bindweed. Himalayan Balsam (*Impatiens glandulifera*), an alien invasive species, is abundant in places.

Floating river vegetation is well represented in the River Barrow and in the many tributaries of the site. In the River Barrow, the species found include water-starworts, Canadian Pondweed, Bulbous Rush (*Juncus bulbosus*), water-milfoils, the pondweed *Potamogeton* × *nitens*, Broad-leaved Pondweed (*P. natans*), Fennel Pondweed, Perfoliated Pondweed and crowfoots. The water quality of the River Barrow has improved since the vegetation survey was carried out in 1996.

Dry heath occurs in pockets along the steep valley sides of the rivers, especially in the Barrow Valley and along the Barrow tributaries where they occur in the foothills of the Blackstairs Mountains. The dry heath vegetation along the slopes of the river bank consists of Bracken and Gorse (*Ulex europaeus*), with patches of acidic grassland vegetation. Additional typical species include Heath Bedstraw (*Galium saxatile*), Foxglove, Common Sorrel (*Rumex acetosa*) and Creeping Bent (*Agrostis stolonifera*). On the steep slopes above New Ross the Red Data Book species Greater Broomrape (*Orobancha rapum-genistae*) has been recorded. On rocky outcrops, Bilberry and Great Wood-rush are present. At Ballyhack, a small area of dry heath is interspersed with patches of lowland dry grassland. These support a number of clover species, including the legally protected Clustered Clover (*Trifolium glomeratum*), a species known from only one other site in Ireland. This grassland community is especially well developed on the west side of the mud-capped walls by the road. On the east of the cliffs a group of rock-dwelling species occur, i.e. English Stonecrop (*Sedum anglicum*), Sheep's-bit (*Jasione montana*) and Wild Madder (*Rubia peregrina*). These rocks also support good lichen and moss assemblages with *Ramalina subfarinacea* and *Hedwigia ciliata*.

Dry heath at the site generally grades into wet woodland or wet swamp vegetation lower down the slopes on the river bank. Close to the Blackstairs Mountains, in the foothills associated with the Aughnabriskey, Aughavaud and Mountain Rivers, there are small patches of wet heath dominated by Purple Moor-grass (*Molinia caerulea*) with Heather, Tormentil (*Potentilla erecta*), Carnation Sedge (*Carex panicea*) and Bell Heather (*Erica cinerea*).

Salt meadows occur at the southern section of the site in old meadows where the embankment has been breached, along the tidal stretches of in-flowing rivers below Stokestown House, in a narrow band on the channel side of Common Reed beds and in narrow fragmented strips along the open shoreline. In the larger areas of salt meadow, notably at Carrickcloney, Ballinlaw Ferry and Rochestown on the west bank, and Fisherstown, Alderton and Great Island to Dunbrody on the east bank, the Atlantic and Mediterranean sub-types are generally intermixed. At the upper edge of the salt meadow, in the narrow ecotonal areas bordering the grasslands where there is significant percolation of salt water, the legally protected Borrer's Saltmarsh-grass (*Puccinellia fasciculata*) and Meadow Barley are found. The very rare and also legally protected Divided Sedge (*Carex divisa*) is also found. Sea Rush is also present. Other plants recorded and associated with salt meadows include Sea Aster, Thrift (*Armeria maritima*), Sea Couch, Spear-leaved Orache (*Atriplex prostrata*), Lesser Sea-spurrey (*Spergularia marina*), Sea Arrowgrass and Sea Plantain.

Glassworts (*Salicornia* spp.) and other annuals colonising mud and sand are found in the creeks of the saltmarshes and at their seaward edges. The habitat also occurs in small amounts on some stretches of the shore free of stones.

The estuary and the other Annex I habitats within it form a large component of the site. Extensive areas of intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present. Good quality intertidal sand and mudflats have developed on a linear shelf on the western side of Waterford Harbour, extending for over 6km from north to south between Passage East and Creadan Head and are over 1km wide in places. The sediments are mostly firm sands, though grade into muddy sands towards the upper shore. They have a typical macro-invertebrate fauna, characterised by polychaetes and bivalves. Common species include *Arenicola marina*, *Nephtys hombergii*, *Scoloplos armiger*, *Lanice conchilega* and *Cerastoderma edule*. An extensive area of honey-comb worm biogenic reef occurs adjacent to Duncannon, on the eastern shore of the estuary. It is formed by the polychaete worm *Sabellaria alveolata*. This intertidal *Sabellaria alveolata* reef is formed as a sheet of interlocking tubes over a considerable area of exposed bedrock. This species constructs tubes composed of aggregated sand grains in tightly packed masses with a distinctive honeycomb-like appearance. These can be up to 25cm proud of the substrate and form hummocks, sheets or more massive formations. A range of species are reported from these reefs, including: *Enteromorpha* sp.; *Ulva* sp.; *Fucus vesiculosus*; *Fucus serratus*; *Polysiphonia* sp.; *Chondrus crispus*; *Palmaria palmate*; *Coralinus officinalis*; *Nemertea* sp.; *Actinia equine*; *Patella vulgate*; *Littorina littorea*; *Littorina obtusata* and *Mytilus edulis*.

The western shore of the harbour is generally stony and backed by low cliffs of glacial drift. At Woodstown, there is a sandy beach, now much influenced by commercial and recreation pressure and erosion. Behind it, a lagoonal marsh has been impounded and runs westwards from Gaultier Lodge along the course of a slow stream. An extensive reedbed occurs here. At the edges is a tall fen dominated by sedges (*Carex* spp.), Meadowsweet, willowherbs (*Epilobium* spp.) and rushes (*Juncus* spp.). Wet woodland also occurs.

The dunes fringing the strand at Duncannon are dominated by Marram (*Ammophila arenaria*) towards the sea. Other species present include Wild Clary/Sage (*Salvia verbenaca*), a rare Red Data Book species. The rocks around Duncannon ford have a rich flora of seaweeds typical of a moderately exposed shore and the cliffs themselves support a number of coastal species on ledges, including Thrift, Rock Samphire (*Crithmum maritimum*) and Buck's-horn Plantain (*Plantago coronopus*).

Other habitats found throughout the site include wet grassland, marsh, reedswamp, improved grassland, arable land, quarries, coniferous plantations, deciduous woodland, scrub and ponds.

Seventeen Red Data Book plant species have been recorded within the site: Killarney Fern, Divided Sedge, Clustered Clover, Basil Thyme (*Acinos arvensis*), Red Hemp-nettle (*Galeopsis angustifolia*), Borrer's Saltmarsh-grass, Meadow Barley, Opposite-leaved Pondweed, Meadow Saffron/Autumn Crocus (*Colchicum autumnale*), Wild Clary/Sage, Nettle-leaved Bellflower, Saw-wort (*Serratula tinctoria*), Bird Cherry (*Prunus padus*), Blue Fleabane (*Erigeron acer*), Fly Orchid (*Ophrys insectifera*), Ivy Broomrape (*Orobanche hederaceae*) and Greater Broomrape. Of these, the first nine are protected under the Flora (Protection) Order, 2015. Other plants that do not have a wide distribution in the country are found in the site, including Thin-spiked Wood-sedge, Field Garlic (*Allium oleraceum*) and Summer Snowflake. Six rare lichens, indicators of ancient woodland, are found including *Lobaria laetevirens* and *L. pulmonaria*. The rare moss *Leucodon sciurioides* also occurs.

The site is very important for the presence of a number of Annex II species, including Freshwater Pearl Mussel (both *Margaritifera margaritifera* and *M. durrovensis*), White-clawed Crayfish, Atlantic Salmon, Twaite Shad, Sea Lamprey, Brook Lamprey, River Lamprey, Desmoulin's Whorl Snail and European Otter. This is the only site in the world for the hard-water margaritifera, the Nore Freshwater Pearl Mussel, and one of only a handful of spawning grounds in the country for Twaite Shad. The freshwater stretches of the River Nore (main channel) is a designated salmonid river. The River Barrow/ River Nore is mainly a grilse fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistioge on the River Nore. The upper stretches of the River Barrow and River Nore, particularly the Owenass River, are very important for spawning.

The site supports many other important animal species. Those which are listed in the Irish Red Data Book include Daubenton's Bat, Badger, Irish Hare and Common Frog. The rare Red Data Book fish species Smelt (*Osmerus eperlanus*) occurs in estuarine stretches of the site. In addition to Freshwater Pearl Mussel, the site also supports two other freshwater mussel species, *Anodonta anatina* and *A. cygnea*. Three rare invertebrates have been recorded in alluvial woodland at Murphy's of the River: *Neoascia obliqua* (Diptera: Syrphidae), *Tetanocera freyi* (Diptera: Sciomyzidae) and *Dictya umbrarum* (Diptera: Sciomyzidae). The rare arachnid *Mitostoma chrysomelas* occurs in the old oak woodland at Abbeylax and only two other sites in the country. Two flies *Chrysogaster virescens* and *Hybomitra muhlfeldi* (both Diptera) also occur at this woodland.

The site is of ornithological importance for a number of Annex I (Birds Directive) species, including Greenland White-fronted Goose, Whooper Swan, Bewick's Swan, Bar-tailed Godwit, Peregrine and Kingfisher. Nationally important numbers of Golden Plover and Bar-tailed Godwit are found during the winter. Wintering flocks of migratory birds are seen in Shanahoe Marsh and the Curragh and Goul Marsh, both in Co. Laois, and also along the Barrow Estuary in Waterford Harbour. There is also an extensive autumnal roosting site in the reedbeds of the Barrow Estuary used by Swallows before they leave the country. The old oak woodland at Abbeylax has a typical bird fauna including Jay, Long-eared Owl and Raven. The reedbed at Woodstown supports populations of typical waterbirds including Mallard, Snipe, Sedge Warbler and Water Rail.

Land use at the site consists mainly of agricultural activities, mostly intensive and principally grazing and silage production. Slurry is spread over much of the area.

Arable crops are also grown. The spreading of slurry and fertiliser poses a threat to water quality and populations of Annex II (Habitats Directive) species within the site. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Fishing is a main tourist attraction along stretches of the main rivers and their tributaries and there are a number of angling clubs, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. There is net fishing and a mussel bed in the estuary. Other recreational activities such as boating, golfing and walking, particularly along the Barrow towpath, are also popular. There is a golf course on the banks of the River Nore at Mount Juliet and sports pitches at Inistioge and Thomastown. There are active and disused sand and gravel pits throughout the site. Several industrial developments, which discharge into the river, border the site. New Ross is an important shipping port and shipping to and from Waterford and Belview ports also passes through the estuary.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing in the woodland areas, and invasion by non-native species, e.g. Cherry Laurel (*Prunus laurocerasus*) and Rhododendron (*Rhododendron ponticum*). Water quality remains vulnerable. Good quality water is necessary to maintain the populations of Annex II species and is dependent on controlling fertilisation of the grasslands, particularly along the River Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as Lamprey and Shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

4.0 ASSESSMENT OF POTENTIAL IMPACTS

4.1 Ecological Surveys

In order to examine baseline ecological conditions and determine the presence and proximity of any Qualifying Interests/Special Conservation Interests of Natura 2000 sites to the North Quays SDZ, data relating to the ecology of the North Quays SDZ and surrounding area, as well as protected sites potentially affected by the Draft Planning Scheme, were obtained from statutory and non-statutory consultees, as well as by a desk study and field surveys.

An initial desk study was undertaken on 2nd November 2016 and included reviews of reporting commissioned under Article 17 of the Habitats Directive (NPWS, 2013d,e), Site Synopses, Standard Data Forms and Conservation Objectives for Natura 2000 sites, in particular the Lower River Suir SAC, the River Barrow and River Nore SAC and other Natura 2000 sites within 15km of the North Quays SDZ. A review of the National Biodiversity Data Centre database (NBDC, 2017) was also undertaken. A data request was submitted to the National Parks & Wildlife Service. The results of the desk study were used to inform the design of initial multidisciplinary ecological walkover surveys. A follow-up desk study was undertaken on 23rd February 2017 to check for any new information since the initial desk study.

A multidisciplinary ecological walkover survey was conducted by suitably qualified and accredited ecologists from ROD on 9th November 2016. This included habitat/botanical surveys and protected species surveys. The protected species survey was designed to record evidence of European Otter (*Lutra lutra*), Eurasian Badger (*Meles meles*) and other protected mammals adhering to recognised methodology outlined in *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA, 2008). Habitats present were classified in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000) and mapped following *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al.*, 2011). Notes on the morphology, physical characteristics and potential of the river habitat to support protected flora and fauna were recorded.


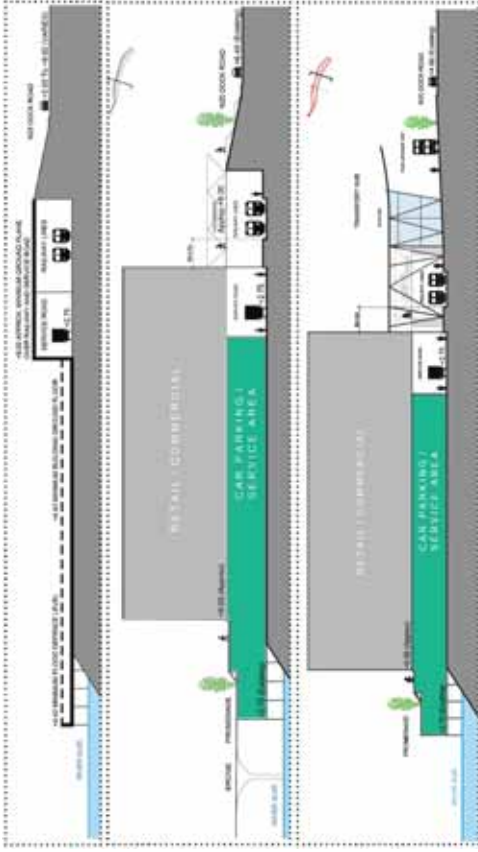
Consultation and desk study identified five Natura 2000 sites and a number of the Qualifying Interests and Special Conservation Interests of these sites as being of particular interest in the context of AA.



4.2 Potential Impacts Arising from the Draft Planning Scheme

There are approximately 8.23 ha of brownfield site in the North Quays SDZ. The Vision of the Draft Planning Scheme is to provide a framework to facilitate the regeneration of the vacant, under-used site and to ensure that future developments create a high-quality, sustainable mixed-use development that integrates successfully with the rest of Waterford City and the wider region. The AA Screening determined that the realisation of this Vision through the implementation of the Draft Planning Scheme has the potential to significantly affect two Natura 2000 sites, namely the Lower River Suir SAC and the River Barrow and River Nore SAC (see Sections 1.6, 3.2 and 3.3 of this Draft NIR). Table 4.1 below identifies the specific aspects of the Draft Planning Scheme that have the potential to impact on the Qualifying Interests and integrity of these Natura 2000 sites, in view of their Conservation Objectives.

Table 4.1 Potential Impacts and Effects of the Vision, Principal Goals and Specific Objectives of the Draft Planning Scheme on Natura 2000 sites, in View of their Conservation Objectives

Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
CHAPTER 1: INTRODUCTION		
Vision for the North Quays		
1.9.1	To create a sustainable, compact extension to the City Centre that will serve a future population of a 83,000 people	Population growth will lead to increased demand for water services, i.e. water supply and wastewater treatment, which presents a risk to water quality in the receiving environment. Upgrading of the drainage infrastructure and flood protection will also be required and these also have the potential to negatively impact on water quality. These issues are relevant for Twaite Shad, Atlantic Salmon and European Otter in both the Lower River Suir SAC and the River Barrow and River Nore SAC. Furthermore, with increased population levels in the study area, potential for disturbance of species could result as more people seek to visit and/or take part in a wide range of land- and water-based recreational activities in or close to Natura 2000 sites. The overall development of the site, the construction of a transport hub and the proximity of a compact city core centred on the River Suir may lead to impacts on Twaite Shad and Atlantic Salmon arising from a potential reduction in water quality as a result of accidental pollution events during construction and operation, which may also lead to indirect effects on Otter as these species form part of that species' diet. Other potential impacts on Otter are increased barriers to connectivity as a result of increased disturbance from lighting and noise as a result of the development next to the river. Therefore, the Vision for the North Quays has the potential to adversely affect the Conservation Objectives for Twaite Shad, Atlantic Salmon and European Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
1.9.2	A regeneration catalyst for the City and Region and the establishment of a sustainable modern city quarter	
1.9.3	Creation of an integrated multi-modal transport hub designed to sustainably meet the access requirements of The City	
1.9.4	Building on the context and the riverside location of the site to create a high quality urban quarter as a natural extension of the City Centre	
1.10	Principal Goals	
	<ul style="list-style-type: none">To create a strong and complementary extension of the City CentreTo 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.	Owing to their high-level, strategic nature, these Principal Goals do not provide for any tangible impacts. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as that Vision (see detail in relation to the Vision above).
	<ul style="list-style-type: none">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.	Potential impacts on Twaite Shad and Atlantic Salmon at both sites as a result of providing a new bridge include a potential reduction in water quality as a result of accidental pollution events during construction. Potential impacts on Otter are increased barriers to connectivity as a result of increased disturbance from lighting and noise as a result of the new river crossing, as well as indirect impacts arising from a reduction in prey availability as a result of pollution/sedimentation. Therefore, this Principal Goal has the potential to adversely affect the Conservation Objectives for Twaite Shad, Atlantic Salmon and Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
	<ul style="list-style-type: none">To provide a rich and diverse mix of uses where a sustainable balance of retail, working, living and recreation can be achieved.To develop a design led scheme of high quality architectural merit.To balance the employment, retail and commercial base of the North Quays with the future residential growth of the City and the South East Region.To provide a transport hub on the North Quays.To provide for sustainable patterns of movement and access with priority for pedestrians, cyclists and public transport.To promote quality design of the spaces between and around buildings, the public realm that connects the various elements of the North Quays together including the wider hinterland.To create a safe, accessible and socially cohesive environment where people of all ages and abilities can live, work and relax.To provide sustainable infrastructure and services for future populations.To provide for the protection, enhancement and improvement of the natural environment, including the avoidance of adverse effects on European sites, particularly the Lower River Suir SAC and the River Barrow and River Nore SAC.	Owing to their high-level, strategic nature, these Principal Goals do not provide for any tangible impacts. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as that Vision (see detail in relation to the Vision above).
	<ul style="list-style-type: none">To create a sustainable urban environment, which respects it's natural, historic and cultural heritage.	The effect of this Principal Goal will be a positive one, as it expressly provides for the protection of the Lower River Suir SAC, the River Barrow and River Nore SAC and other Natura 2000 sites as a core aim of the Draft Planning Scheme. This provides mitigation for the Vision, Principal Goals and Specific Objectives of the Draft Planning Scheme with the potential to adversely affect the integrity of those sites.
	<ul style="list-style-type: none">To provide sustainable solutions that address and manage the risk of flooding and climate change.	Owing to its high-level, strategic nature, this Principal Goal does not provide for any tangible impacts. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as that Vision (see detail in relation to the Vision above).
		The provision of flood management measures may have the potential to negatively impact on water quality within the Lower River Suir SAC and the River Barrow and River Nore SAC



Details of Draft Planning Scheme proposals		Potential impact(s) and effect(s)
		through the input of construction materials, hydrocarbons or sediments during the construction stage. This adversely affects the Conservation Objectives for Twaite Shad, Atlantic Salmon and European Otter in these two European sites.
		Owing to its high-level, strategic nature, this Principal Goal does not provide for any tangible impacts. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as that Vision (see detail in relation to the Vision above).
CHAPTER 3: PHYSICAL & SOCIAL INFRASTRUCTURE		
3a.1	Access Strategy	 <p>Figure 12: Access Strategy</p>
3a.2	Parking	 <p>Figure 13.14 to 13: Typical Schematic: Gate Junction through Central Zone</p>
3a.3	Traffic Assessment	The construction and operation (e.g. washing of oil, fuel, rubber, cleaning products etc. from car park floor) of parking facilities in the North Quays has the potential to lead to negative impacts on water quality within the River Suir. Pollution events or longer-term reduced water quality has the potential to directly impact Twaite Shad and Atlantic Salmon and indirectly impact Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC. However, the inclusion of petrol interceptors into the design of all outfalls from the parking facilities will mitigate against this impact. Noise and light disturbance during construction also has the potential to negatively impact on Otter. As parking facilities will primarily be provided underground, any noise/light during the operational stage will not be significant in the context of the overall development of the site.

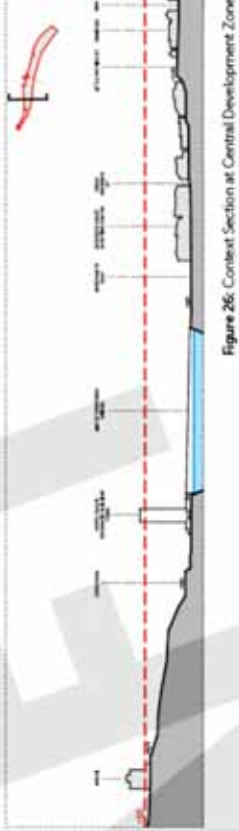
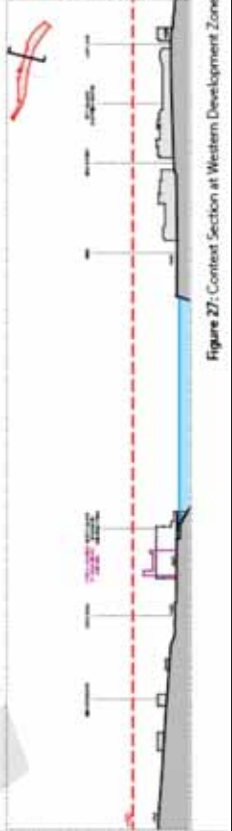
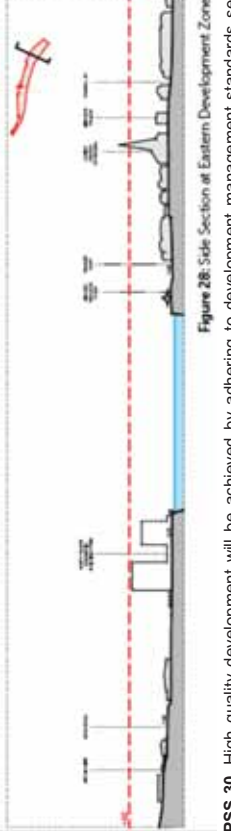
Details of Draft Planning Scheme proposals	Potential impact(s) and effect(s)
<p>Figure 16: Access Strategy</p>  <p>Figure 16: Access Strategy</p> <p>Transport Hub</p>	<p>The Access Strategy for the North Quays will require the construction of a new sustainable transport bridge across the River Suir, which provides for potentially significant impacts on water quality and consequent adverse effects on Twaite Shad and Atlantic Salmon, as well as reduced prey availability and significant noise and light disturbance to Otter. The operation of the bridge also has the potential to cause long-term disturbance to Otter through human activity and architectural lighting on the bridge. However, it has been shown in cities in Ireland and elsewhere that Otters habituate to urban environments. The construction and operation of the transport hub and other accesses provide for similar impacts, though at a lower quantum. Therefore, the potential adverse effects on the integrity of the Lower River Suir SAC and the River Barrow and River Nore SAC arising from the Access Strategy for the North Quays are the same as those arising from the overall Vision and from the Principal Goal relating to the provision of the new bridge.</p>
<p>3a.6 Transport Hub</p>  <p>Figure 16b: Transport Hub & Access Strategy</p>	<p>As per 3a.1 to 3a.2, inclusive, above.</p>
<p>3a.8 Future proofing of Transportation Needs</p> <p>PSI 1 To develop and promote a modal shift away from the private car use towards increased use of sustainable integrated multi modal transportation network to include walking, cycling public transport integrating bus and rail infrastructure. All future planning applications shall demonstrate how they seek to implement the actions contained in the Government's 'Smarter Travel, A Sustainable Transport Future 2009-2020'.</p> <p>PSI 2 To support and facilitate the development of an integrated public transport network with efficient interchange between transport modes, to serve the existing and future needs of all ages in association with relevant transport providers, agencies and stakeholders and to facilitate the integration of walking and cycling with public transport.</p> <p>PSI 3 To require a standard workplace travel plan for any development that employs over 100 people in accordance with the "National Transport Authority the preparation of workforce travel plans- a guide for implementers".</p>	<p>These Specific Objectives do not provide for any impacts on the ecological sensitivities of either the Lower River Suir SAC or the River Barrow and River Nore SAC. Therefore, they do not have the potential to adversely affect the integrity of either of those two sites, in view of their Conservation Objectives.</p>


Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
PSI 4	To provide a cycle and sustainable transport bridge across the river to form part of strategic cycling and walking routes.	The provision of a sustainable transport bridge and riverside walkway/boardwalk has potential to lead to a reduction in water quality in the River Suir through accidental pollution events during construction. This would have direct impacts on Twalte Shad and Atlantic Salmon, and indirect impacts on Otter. The potential barriers to connectivity arising from increased noise and light disturbance may also impact negatively on Otter. Therefore, this Specific Objective has the potential to adversely affect the Conservation Objectives for Twalte Shad, Atlantic Salmon and Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
PSI 5	To create and support a well-designed network of pedestrian infrastructure to promote and facilitate walking and cycling, provide priority for pedestrians and cyclists within the North Quays and linking with the surrounding walking and cycling networks in Waterford/Kilkenny environs, including the Waterford/New Ross Greenway.	
PSI 6	To require provision of good quality end-of-trip facilities to encourage walking and cycling such as secure and weather-proof bike stands, lockers, showers, changing and drying rooms.	
PSI 7	To provide appropriate levels of car parking and cycle parking to serve a range of uses in accordance with the Waterford City Development Plan car parking standards (as amended by Variation No 1 to the Waterford City and County Development Plan). Reduction in car parking standards may be considered appropriate where alternatives means of sustainable transport are being provided for within the site.	The potential impacts and effects on the Lower River Suir SAC and River Barrow and River Nore SAC of these Specific Objectives are as previously outlined with regard to the parking arrangements and access strategy.
PSI 8	To promote best practice mobility management and travel planning.	This Specific Objective does not provide for any impacts on the ecological sensitivities of either the Lower River Suir SAC or the River Barrow and River Nore SAC. Therefore, it does not have the potential to adversely affect the integrity of either of those two sites, in view of their Conservation Objectives.
3b.1 Environmental Infrastructure		
PSI 10	To achieve best practise and innovations in SuDS design as part of the planning scheme, including the successful coordination of surface water management with ecology and amenity functions of open space and landscaped areas. All planning applications shall be accompanied by a surface water drainage plan which will include proposals for the management of surface water within sites in accordance with requirements as listed in Section 3b.1.3 above, protecting the water quality of the existing water bodies and ground water sources, and retrofitting best practice SuDS techniques on existing sites, where possible.	These Specific Objectives will have a positive effect as they will require developers to provide for the protection of water quality in the design of any developments under the Draft Planning Scheme, thereby safeguarding the Lower River Suir SAC and the River Barrow and River Nore SAC against adverse effects on the integrity of those sites.
PSI 11	To ensure the protection of surface and ground water quality in the plan area and surrounding areas.	
PSI 12	Contaminated surface water such as oil/fire water/detergents will be intercepted and stored appropriately for future treatment and disposal.	
3b.1.4 Flood Management		
PSI 13	There will be a requirement for a site specific flood risk assessment for planning applications for the SDZ. The flood risk assessment will consider the impact of the proposed development in accordance with the "The Planning System and Flood Risk Management" (DEHLG & OPW, 2009). No development shall be allowed that contradicts the recommendations of the SFRA for the North Quays or increases the flood risk to existing developments. As part of the applicants' site specific flood risk assessment a justification test will not be required as this has been completed as part of the Waterford North Quays SFRA.	These Specific Objectives do not provide for any impacts on the ecological sensitivities of either the Lower River Suir SAC or the River Barrow and River Nore SAC. Therefore, they do not have the potential to adversely affect the integrity of either of those two sites, in view of their Conservation Objectives.
PSI 14	Basements, below 4.42m OD shall only be utilised for vehicle parking and storage and ancillary services all access points to basements shall be defended to a level of 4.42m OD. Basements shall be lined with impermeable sealants as to restrict groundwater ingress and pumping stations should also be installed.	
3b.2 Utilities and ICT		
3b.2.1 Telecommunications		
PSI 15	It is an objective to require future applications to include details of the proposed network at planning application stage.	These Specific Objectives do not provide for any impacts on the ecological sensitivities of either the Lower River Suir SAC or the River Barrow and River Nore SAC. Therefore, they do not have the potential to adversely affect the integrity of either of those two sites, in view of their Conservation Objectives.
PSI 16	To require the use of ducting for information communication technology within individual new residential and commercial developments.	
PSI 17	To facilitate the development of accessible Wi-Fi zones within the planning scheme area.	
3b.4 Waste Management		
PSI 18	To require all development within the North Quay to comply with the waste policy as set out in the Waterford City Development Plan 2013-2019 in accordance with the waste management hierarchy of waste prevention, waste recycling energy recovery and disposal. At planning application stage proposed development will have to show regard for refuse collection/recycling composting etc at suitable locations where required.	These Specific Objectives do not provide for any impacts on the ecological sensitivities of either the Lower River Suir SAC or the River Barrow and River Nore SAC. Therefore, they do not have the potential to adversely affect the integrity of either of those two sites, in view of their Conservation Objectives.
3b.5 Biodiversity		
PSI 19	Any plan or project with the potential to give rise to significant direct, indirect, secondary impacts or through indirect or cumulative impact, on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article 6 of the EU Habitats Directive (92/43/EEC) and associated legislation and guidelines informing decision making. All proposals are required to consider the mitigation measures contained in the Natura Impact Report of the Draft Planning Scheme.	These Specific Objectives will have positive effects as they will protect not only the Lower River Suir SAC, the River Barrow and River Nore SAC and other Natura 2000 sites, but also the River Suir itself and biodiversity more generally. These Specific Objectives also mitigate for the adverse effects of other provisions of the Draft Planning Scheme.
PSI 20	All development should include proposals on how they address the natural heritage in terms of conservation, management, and improvements to the local biodiversity in the urban environment. Developments shall incorporate landscaping and other design features that have the potential to improve or enhance existing natural habitats, ecological corridors and blue and green infrastructure.	
PSI 21	All development proposals will be encouraged to include the planting of appropriate native flora to support and develop habitats for both terrestrial and aquatic fauna. Planting should, as far as possible, be limited to native plant species and enhance the riverine and riparian environment and protect the native flora and fauna in the area.	
PSI 22	All future proposals shall ascertain the extent, if any, of invasive species, and implement measures to control or, where possible, eradicate them from the relevant site.	

Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
3b.6.3 Healthcare facilities		
PSS 23	To promote the development of community, health, childcare and other community and social facilities as part of the mixed land-use policy for the SDZ.	Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see characterisation above).
3b.6.4 Play Areas		
PSS 24	To include purposefully designed play areas as part of future planning applications on the North Quays.	Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 25	To require an indoor recreational space within the residential area providing an inviting place for informal recreation.	
CHAPTER 4: PLANNING STRATEGY		
4.1 Introduction		
PSS 1	All future planning applications shall comply with the relevant Waterford City Development Plan policies and objectives.	This Specific Objective will have a positive effect as it reinforces the requirement for all development within the North Quays SDZ to comply with the relevant Policies and Objectives of the Waterford City Development Plan 2013-2019, which include mitigatory policies and objectives to protect the Lower River Suir SAC, the River Barrow and River Nore SAC and other Natura 2000 sites. These Policies and Objectives are reproduced in Section 6.2 of this Draft NIR.
PSS 2	All future planning applications shall have regard to: <ul style="list-style-type: none"> Design Standards for new Apartments, Best Practice Urban Design Manual. Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2015) Department of the Environment, Community and Local Government. Smarter Travel – A Sustainable Transport Future 2009-2020. 	This Specific Objective does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
4.3 Land uses		
PSS 3	To foster a rich mix of retail, commercial, residential, cultural and leisure activities to support a vibrant enlivened urban quarter.	Any impacts arising from these provisions and Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 4	To provide a mix of sustainable uses throughout the SDZ site that will create active and animated spaces both day and night, respecting the unique biodiversity of the area.	
PSS 5	To ensure an appropriate level of active ground floor uses to make a positive contribution to the street-level activity and ensure passive surveillance.	
PSS 6	To provide a range of supporting uses such as local convenience shops, restaurants, cafés and leisure, childcare, health care and financial services within the SDZ area.	
4.3.1 Retail		
PSS 7	To provide a maximum of 30,000 sqm of net retail comparison floorspace.	This scale of this development, as well as its proximity to the River Suir and its interaction with the sustainable transport bridge, provides for significant water quality, noise and lighting impacts during construction and operation. These have the potential to adversely affect the Conservation Objectives for Twalte Shad, Atlantic Salmon and Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
4.3.2 Office		
PSS 8	To facilitate a range of office types taking into account the demand for flexible and dividable floor plates.	Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
4.3.3 Residential		
PSS 9	To promote a residential population of circa 500 to 600 population in the North Quays, by providing high quality adaptable homes and quality residential choices for a range of household types inclusive of single occupants, students, young couples, families, the elderly and those with special needs.	Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 10	To promote sustainable higher densities and quality innovative designs achieving generous standards of residential amenity for residents, including spacious and adaptable interiors, high quality natural lighting, good storage facilities, private open space amenity and car parking/bicycle parking.	
PSS 11	To seek a successful interaction between the residential scheme, streets and public realm to foster a true sense of neighbourhood and encourage interaction between residents. Opportunities for animated ground floors, homes with own door access, private landscaped terraces and a successful integration with communal and public open space shall be encouraged.	
PSS 12	To promote socially balanced communities through the implementation of Part V (as amended) in accordance with the Waterford City Development Plan.	
PSS 13	To promote sustainable land use patterns by integrating sustainable modes of travel and transportation into the design of residential developments.	
PSS 14	Apartment standards are to be in accordance with the Waterford City Development Plan and the "Sustainable Urban Housing – Design Standards for New	

Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
Apartments- Guidelines for Planning Authorities.		
PSS 15 Promote the implementation of supporting community, social, economic, cultural health and education facilities in tandem with the completion of new residential development.		
4.3.4 Hotel and Conference Centre (200 - 300 bed)		
PSS 16 To facilitate the development of a high quality hotel and conference centre on the North Quays.		The scale of this development and its proximity to the River Suir provides for significant water quality, noise and lighting impacts during construction and operation. These have the potential to adversely affect the Conservation Objectives for Twaité Shad, Atlantic Salmon and Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
4.3.5 Tourism/Cultural development and Tourism related Retail		
PSS 17 To facilitate the development of tourism/cultural development on the North Quays with associated tourism related retail.		Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 18 To facilitate where possible berthing facilities for recreational/leisure vessels and appropriate amenity provision reflecting the cultural heritage of the area.		The provision of berthing facilities in the River Suir would require works within the river channel and on the muddy estuarine substrate. This has the potential to negatively impact on water quality within the river, potentially affecting aquatic species, including Twaité Shad and Atlantic Salmon, which could lead to indirect effects on Otter. Noise and lighting during both construction and operation has the potential to cause significant disturbance to Otter. Intrusion of artificial light into the water also has the potential to affect the behaviour of fish species. Shading of the channel by floating pontoons is not considered to have the potential to cause adverse effects at this location.
4.3.6 Public Open Space		
The Draft Planning Scheme requires that a minimum of 20% public open space is provided for throughout the scheme to include a minimum 10 metre wide riverside promenades (exception to this may be permitted at certain locations if justified in a design statement).		The percentage of public space is considered to be inconsequential with regard to the integrity of the European sites in question. The potential effects of the promenade/riverside walkway/boardwalk are described above.
PSS 19 To develop a hierarchy of inter-connected hard and soft open spaces, recreation and landscaped areas, walking and cycling priority routes, through the SDZ area that support local biodiversity and development of ecological corridors as far as practical.		This Specific Objective will have no effect on the integrity of the Lower River Suir SAC, the River Barrow or River Nore SAC or any other Natura 2000 site. However, it will have a positive effect on biodiversity more generally.
PSS 20 To provide a minimum of 20% public open space to include a minimum 10 metre wide riverside promenade/s that contributes to local biodiversity in accordance with specific objectives in Section 3b.5 Biodiversity.		The potential negative effects of the proposed promenade/riverside walkway/boardwalk are described above (in relation to PSS 4 and 5). However, this Specific Objective partially mitigates for these effects and has the potential to positively affect biodiversity generally.
PSS 21 To provide a public plaza at the landing point of the sustainable transport bridge. Pedestrian connectivity to the Dock Road should be provided at this location.		Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 22 To provide a public plaza at the eastern portion of the site on the Frank Cassin Wharf. Pedestrian connectivity to the northern environs of the city should be provided through the proposed plaza.		
PSS 23 To promote the integration community, cultural and recreational development, through the provision of generous landscaped amenity areas and public realm.		
PSS 24 The size and animation of open spaces, to include both hard and soft landscaping shall be related to the height of the adjoining buildings in order to achieve satisfactory levels of sunlight and daylight.		
PSS 25 To seek the provision of a wide range of both active and passive recreation for various age groups and abilities.		
4.3.7 Supporting uses		
PSS 26 To encourage a wide range of supporting and complementary uses throughout the North Quays in tandem with the main land use objectives.		Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
4.4 Extent of Development		
PSS 27 To deliver a maximum quantum of 150,000sqm of city centre type development in the planning scheme area.		Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
Table 1: Extent of Development		
Land Use	Minimum Net Floor Area	Maximum Net Floor Area
Retail (Comparison)	20,000sqm	30,000sqm
Food and Beverage	5,000sqm	7,000sqm
Office	10,000sqm	15,000sqm
Hotel and Conference Centre	10,000sqm	15,000sqm
Tourism/Cultural /Enterprise/Light Industry/ Community Facilities	10,000sqm	15,000sqm
Residential	200 units	300 units

Details of Draft Planning Scheme proposals		Potential impact(s) and effect(s)
<div><p>Key</p><ul style="list-style-type: none">WESTERN DEVELOPMENT ZONE Buildings up to 60m O.D.CENTRAL DEVELOPMENT ZONE Buildings up to 50m O.D.EASTERN DEVELOPMENT ZONE Buildings up to 60m O.D.<p>Note: Landmark buildings / building elements up to 70m O.D. can be considered as being in the Western Development Zones.</p><p>Note: The 50m building height in the Central Development Zone is consistent with the previously existing buildings in this area of the site.</p></div> <p>Figure 23: Development Zones</p>		
<p>4.5 Views</p> <p>South to North</p> <ul style="list-style-type: none">(A) Bridge Street(B) Barronstrand Street(C) The Mall(D) Panoramic view from South Quays to North Quays <p>North to South</p> <ul style="list-style-type: none">(E) Western approach to Rice Bridge(F) Rockshire Road(G) Panoramic view from North Quays to South Quays <p>It is generally recognised that the most significant views are those generally available from the north to the south and vice versa from any point on the river's edge. It is the objective of the Draft Planning Scheme that these views will be retained as the defining views of the City.</p>		<p>This provision of the Draft Planning Scheme does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.</p>
<div><p>Figure 25: Views with contextual images</p></div>		

Details of Draft Planning Scheme proposals		Potential impact(s) and effect(s)
4.6 Building Height		
PSS 28 Applications for high-rise buildings over 60m OD shall be accompanied by a design statement as part of the assessment criteria for high buildings.		These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSS 29 High buildings must make a positive contribution to the city skyline, city structure and topography, in accordance with Section 13.9.1 of the Waterford City Development Plan 2013 - 2019.		
4.7 Massing		
	 <p>Figure 26: Context Section at Central Development Zone</p>  <p>Figure 27: Context Section at Western Development Zone</p>  <p>Figure 28: Side Section at Eastern Development Zone</p>	This Specific Objective does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSS 30 High quality development will be achieved by adhering to development management standards set out in the Waterford City Development Plan, such as daylight, provision of private and public space, privacy and overlooking.		
4.9 Public Realm		
PSS 31 Develop a high quality public realm through provision of appropriate public open space, surface treatments, street lighting, furniture and public art.		Any impacts arising from this Specific Objective are very general in nature. However, as it is intended to support the overall Vision for the North Quays, it is considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
4.10 Urban Form		
PSS 32 Promoting the development of a legible urban structure with a well defined network of routes and spaces for pedestrian, cyclist and vehicular movement.		Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSS 33 Creating new routes which contribute to ease of movement and connect existing spaces, circulation patterns and public transport.		
PSS 34 Provide for integration and connections with the wider urban area and the city in generally.		
PSS 35 Provision to optimise permeability and access for pedestrians.		

Details of Draft Planning Scheme proposals		Potential impact(s) and effect(s)
		
4.11	Sustainability	
4.9.2	Sustainable Transport	
PSS 36	To promote reduced energy consumption and to provide for sustainable means of energy where feasible and appropriate.	This Specific Objective does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
CHAPTER 5: ARCHITECTURAL STRATEGY		
5.1.1	Architectural Vision	
PSA 1	All applications are required to submit a Design Statement and Visual Impact Assessment as part of planning applications with supporting illustrative material and description of proposed development demonstrating how it has been developed having regard to the built heritage context, topography and landscape character of the site.	Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSA 2	To create a sense of place, character and identity for the North Quays that can be used to define a new vision for the city	
PSA 3	To seek to generate and support vibrancy and activity in the public domain.	
PSA 4	To create an urban quarter of scale and mass while also acknowledging the existing city on the south bank. This can be achieved by creating a lively, varied and balanced compositional approach that counterpoints the south quays.	
PSA 5	To create a sense of openness and punctuation. This can be achieved through a variety of building forms, heights and breaks between and within blocks. A singular monolithic or repetitive block structure with long, unrelieved elevations facing the waterfront or transverse routes will not be considered appropriate. Height and form variation will be encouraged reflecting the diversity of building usage and type, while avoiding a monolithic or repetitive appearance to the river side or the Dock Road facades. Appropriate set back and terracing may be utilised to achieve best advantage of views and aspect. Indentations in the transverse direction would help create protected areas from the wind funneling along the river.	
PSA 6	To address the need for flood protection and change in levels across the site by incorporating car parking with retail, commercial and residential development above. The interfaces between buildings and public spaces to be carefully considered bearing in mind this transverse level change. There is a significant design opportunity to create a lively and varied public realm that will call for innovative solutions.	
PSA 7	All landmark buildings should achieve an exceptionally high quality design and finish. The ground floor of buildings should contain active uses to ensure a continuous degree of movement around the site.	
5.1.2	Connectivity & Porosity	
PSA 8	Proposed layouts must demonstrate high standards of permeability prioritising walking and cycling routes that are direct, safe and secure. Major barriers to pedestrian/cycle movement must be avoided. Layouts shall be designed to ensure that defensible space is defined by buildings, which in turn provide passive supervision of the public realm.	These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSA 9	To provide pedestrian crossings over the railway line opposite the proposed new sustainable transport bridge and also in the vicinity of the Rockshire Road intersection. The architectural expression of these crossings should be considered with respect to the overall scheme and the design concept outlined in the Design Statement.	
PSA 10	To require that development within the Planning Scheme area is consistent with the development of the Waterford Greenway extending to New Ross.	
PSA 11	Consideration should be given to connectivity at upper levels as well as the main pedestrian level.	
PSA 12	The opportunity to provide an indoor/covered protected route within the development can be considered at planning application stage.	

Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
5.1.3 Podiums		
PSA 13 Podium levels will vary between approx. 6m OD and approx. 9m OD. The higher podium level which forms the floor of the retail block/s should not generally extend beyond the central retail development area and the public plaza terminating the eastern end of this zone. The transition between the podium levels can extend laterally and will be considered at planning application stage.		Potential impacts on Twaité Shad and Atlantic Salmon as a result of providing new podiums and plinths include a potential reduction in water quality as a result of accidental pollution events during construction. Potential impacts on Otter are increased barriers to connectivity as a result of increased disturbance from lighting and noise from new podiums and plinths. These impacts may affect Twaité Shad, Atlantic Salmon and Otter in the Lower River Suir SAC and the River Barrow and River Nore SAC.
PSA 14 Particular consideration should be given to the treatment of the faces of the podium/s at the river edge. There should be a design strategy proposed that is practical and aesthetically considered. One approach may be to face the lower plinth that addresses the river with a neutral type finish to create a continuous visual 'line' along the length of the quays and upper plinths recessed and brightly finished as part of the active promenade.		
PSA 15 The interplay between the plinth levels should be used to create variety and spatial interest connecting the levels. Depending on the location, there should be steps, ramps, planting, artwork, seating, lighting and other public realm treatments.		
5.1.4 Promenades		
PSA 16 Minimum of 10 metres is required between the edge of the building and waterfront. Exceptions to this may be permitted at certain locations if justified in the Design Statement. The planning scheme allows for a possible cantilevered walkway/boardwalk extending 5 metres over the river. Such proposals will be detailed at planning application stage.		The potential effects of providing a promenade/riverside walkway/boardwalk are as previously described (in relation to PSS 4 and 5). These impacts may be exacerbated if the walkway/boardwalk is cantilevered.
PSA 17 Promenade/s should have a high level of amenity including seating, street furniture, greening and public lighting – preferably bespoke design elements and high quality, durable materials.		These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSA 18 Promenade/s should feel safe and have zones that are protected from the elements during wind and inclement weather.		
5.1.5 Edges & Massing		
PSA 19 New facades and blocks will provide a fresh and innovative response to today's needs, while carefully considering the site and its relationship to the South Quays, creating a dialog which respects and shows an affinity with its historic neighbour while affirming its own unique identity. There should be significant visual breaks in the north and south facades expressed both as gaps between buildings and as movement in the horizontal and vertical plane within building blocks.		These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSA 20 Given the greater scale in terms of individual buildings compared with those on the South Quays an overall balanced and compositional approach for all of the building forms is required to create variety, diversity and also a sense of unity for the entire development. This would act to mitigate the larger volumes necessary to achieve the required floor plates, and also to set a relevant typology for the North Quays that does not mimic or overpower the fine grain of the South Quays.		
PSA 21 The interface with the Dock Road presents a significant design challenge that must consider a series of changing levels, the rail line and dual carriageway. Buildings addressing Dock Road must consider lively facades and pedestrian access at key locations with good connections to Ferrybank.		
5.1.6 Central Development Zone		
PSA 22 To be of outstanding design, create a unique identification with the City and North Quays, be of civic scale, serve to attract people over the sustainable transport bridge and animated in its night time appearance.		Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSA 23 Large scale urban design qualities should include an identifiable and varied form, height and functionality with individuality generated by reflecting interior uses. The overall composition should be broken up in form by transverse breaks through to the Dock Road elevation to alleviate massing. These may be glazed or open. The principal break must be from the sustainable transport bridge to Dock Road and part of this could be glazed over and form the significant interior public space of the retail block. Many retail developments require large continuous floor plates containing shop floor, interior circulation and services – and it is recognised that much of the central development zone will be devoted to retail. However, appropriate design can create exciting opportunities for a civic scale that also can deliver a variety of scale.		
PSA 24 Riverfront façade/s to be relieved and activated visually to address overall massing. This can be achieved by stepping the façade/s in the vertical and horizontal plane. Drama could be included by integrated, creative envelope treatment of roof and walls. These facades can also be activated by the considered use of innovative lighting, signage and information technology. Sustainable technology components (high performance glass, bris-soleil, canopies, pv panels would be appropriate given its southerly aspect) and would further enliven the facades.		
PSA 25 Fine grain urban design qualities particularly to the waterfront should include: no long inactive elevations, night time activities, human scale, creative public realm, street furniture and lighting. Sufficient openings onto the riverside promenade must bring human scale and activity to the riverside walkway. While not every retail unit needs to be accessed from the promenade – there should be public realm solutions in the intermediate zones between accesses to enliven these areas.		
PSA 26 The Dock Road facade need to be activated, lively and have a design purpose. It should not read as a barrier, but introduce the northern suburbs and traffic along Dock Rd to the City Centre.		
PSA 27 Dock Road façade massing can be mitigated by lower structures of the transport hub such as station/ gateway building, platform and drop off glazed canopies which can run the full length of the rail platform.		
PSA 28 Dock Road elevation must be relieved visually to address its overall massing. This can be achieved by stepping the façade/s in the vertical and horizontal dimension, the use of breaks and change in material. Drama could be included by innovative envelope treatment (roof and walls). This façade/s should be activated by use of innovative lighting, large scale signage and electronic media, green walls and artwork.		
5.1.7 Transport Hub		
PSA 29 Design of central development zone block/s to be considered in tandem with the bridge and gateway structure. There is an opportunity to seamlessly link the structures on both sides of the railway line and form a dramatic entrance to the development. The design solution could incorporate various forms of shelter including tensile structures, canopies and amenity structures.		The potential effects of the construction and operation of the transport hub are described above (in relation to the Vision).
PSA 30 There will be vertical circulation at each end of the rail platform to provide access to the bridges across the railway line; the eastern crossing in the vicinity of the Rockshire Road and the western opposite the sustainable transport bridge. These routes and their associated public realm areas should be seamlessly integrated into the development with clear way-finding.		

Details of Draft Planning Scheme proposals		Potential Impact(s) and effect(s)
5.1.8 Eastern Development Zone		
PSA 31 Building forms should optimize views to the river, solar aspect and shelter from the winds.		Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSA 32 The Eastern access road will be at the high podium level where it joins the North Quays. There is an opportunity for the buildings to connect podium levels and create a varied and pleasant public realm utilizing this change of level.		
PSA 33 The buildings in this zone should read as a component of the overall composition and should be varied in height and form. Tallest building/s will be at the western end of the development zone.		
PSA 34 Berthing of cruise liners should be accommodated in this zone and there should be a larger provision of public realm adjacent to the river at this point.		
5.1.3 Future Views		This Specific Objective does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
Views from south: View A: General panoramic view from the South Quays spanning from Rice Bridge to Reginalds Tower. There should be a compositional balance of the development from these multiple viewing points. Views from north: View B: From the intersection of the New Ross Road, Abbey Road and Fountain Street, there is a visual link with Christ Church Cathedral and Reginald's Tower; this is a fine high level initial view of the city towards the Viking Triangle which could be accounted for in placing the buildings in order to maintained glimpsed views of this aspect. View C: From Fountain Street towards The Rockshire Road intersection. This is a key nodal point in the development looking towards the transportation hub. View D: Dock Road approaching the development from the west – this view will traverse the north side of the development.		
PSA 35 To consider future views and address in Design Statement..		
5.2 Landscaping/ Public Spaces		
5.2.1 Public Realm		Any impacts arising from these Specific Objectives are very general in nature. However, as they are intended to support the overall Vision for the North Quays, they are considered to have the potential to affect the Conservation Objectives of the Lower River Suir SAC and the River Barrow and River Nore SAC in the same way as the Vision (see detail in relation to the Vision above).
PSA 36 To develop two principle nodal public realm spaces – one at the proposed sustainable transport bridge landing and the second opposite the eastern end of the central retail zone in the vicinity of the Rockshire Road access. Each space should have a distinct character, act as a meeting/focal point in the development and have an integrated design solution.		
PSA 37 The bridge landing area should act as a gateway to the development from the City's retail spine and gives access to the central retail zone and public transport hub. It should allow for the turning of the City Centre bus from the South Quays which should be incorporated seamlessly into the public realm solution. A public realm scheme for this node should consider the use of sculpture and water.		
PSA 38 The plaza at the eastern end of the central development zone can be at the high podium level and should facilitate views towards the Viking Triangle and Reginalds Tower.		
PSA 39 To develop an integrated public realm scheme for the North Quays which addresses elements including street furniture, hard landscaping finishes, bin storage and services including public lighting.		
PSA 40 To require public open spaces to be retained generally free from development save for possible small scale kiosks, and public infrastructure where appropriate subject to normal planning controls.		
PSA 41 To require public open spaces and civic spaces to be fully accessible to all users, with clear way finding and be composed of high quality/durable materials. Proposed plazas will be designed in a legible and clear manner, incorporating landscaping and public art, while facilitating pedestrian and cycle circulation.		
PSA 42 To require a comprehensive landscaping scheme to include details of hard and soft landscaping proposals including tree species and the use of soft boundaries to demarcate/define private open space.		
PSA 43 To promote a child centred approach to public open space areas and to provide adequate recreation and play facilities that satisfy local needs and the projected population of the North Quays taking into account surrounding communities.		
5.2.2 Greening		
PSA 44 To require future development proposals to build a 'green' strategy into the fabric of the development and to submit proposals in relation to green infrastructure at planning application stage.		
PSA 45 To maximize planted areas to avail of the southerly exposure and to create protected areas to shield plants and people from the elements and particularly the prevailing winds which funnel down the river.		
PSA 46 To require the use of appropriate planting for the site conditions. It may not be possible for instance to plant significant areas of large mature trees therefore the use of alternative maritime hardy plants would be appropriate in raised planters.		
PSA 47 To require contemporary design solutions where the hardscape and softscape complement one another with the use of colour, texture, form in the planting selection.		
PSA 48 To maximise and exploit the changes in levels across the site and to form these transitions as green zones.		These Specific Objectives on greening have the potential, when read in conjunction with the provisions of the Draft Planning Scheme in relation to biodiversity, to contribute to the protection of water quality and general ecological enhancement of the North Quays. They do not provide for adverse effects on the Lower River Suir SAC or the River Barrow and River Nore SAC, in view of their Conservation Objectives.
PSA 49 To require clear delineation of the boundaries and transitions between private space, communal space and public space.		
PSA 50 To agree with Waterford City and County Council detail specifications of work for all public open space and green infrastructure.		
5.3 External Materials, Finishes and Technology		
5.3.1 Palette and Approach		

Details of Draft Planning Scheme proposals		Potential impact(s) and effect(s)
PSA 51	To promote the use of an appropriate palette of colours and materials suitable to the site setting.	These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSA 52	To promote the use of appropriate and sustainable materials such as glass and other high quality complementary materials.	
PSA 53	To avoid the excessive use of any material that might become oppressively dominant	
PSA 54	To promote creative proposals in lighting and display technologies.	
PSA 55	To require any future application to consider signage, branding and lighting at the outset as part of the overall design approach and submit details at the application stage, including an assessment of potential impacts of light pollution on the immediate and wider environment.	
PSA 56	To require any future planning application to consider and submit proposals for the careful detailing of the interface with the street (including selection of floor levels, the design of entrance features, use of paving materials and lighting proposals).	
PSA 57	Facades at street level require to be detailed with regard to human scale and tactile quality.	
PSA 58	To apply the current design philosophy and the high quality design of the public realm within the existing medieval City Centre to all future development on the North Quays.	
5.4.1 Sustainable Urban Form /Building Design		
PSA 59	All future planning applications to comply with "Nearly Zero Energy Buildings" (NZEB) standards.	This Specific Objective does not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
5.4.4 Renewable Energy		
PSA 60	To comply with all the objectives of the current Waterford City Plan in relation to sustainable energy.	These Specific Objectives do not give rise to any effect on either the Lower River Suir SAC or the River Barrow and River Nore SAC.
PSA 61	To promote reduced energy consumption and to provide for sustainable means of energy where feasible and appropriate.	
PSA 62	To support sustainable energy initiatives and to facilitate where possible new and innovative technologies within the Draft Planning Scheme area.	
CHAPTER 6: ACTIONS & IMPLEMENTATION		
6.3 SDZ Applications		
PSAI 1	Any future planning application on the North Quays SDZ shall be consistent with the vision, goals and specific objectives as set out in this planning scheme.	This Specific Objectives will have no effect as it merely reiterates the requirement for all planning applications to comply with the Vision, Principal Goals, Specific Objectives and urban form and land use aspects of the Draft Planning Scheme and to demonstrate this compliance.
PSAI 2	Any future planning application on the North Quays SDZ shall be accompanied by a Compliance Statement illustrating how the development complies with the planning scheme.	

4.3 Conservation Objectives and Site Integrity

The Habitats Directive defines the conservation status of a natural habitat as the sum of the influences acting thereon (and on its typical species) that may affect its long-term natural distribution, structure and functions, as well as the long-term survival of its typical species. The conservation status of a natural habitat is considered to be “favourable” when all of the following criteria are met:

- Its natural range and areas it covers within that range are stable or increasing;
- The specific structure and functions that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and,
- The conservation status of its typical species is favourable.

The conservation status of a species is the sum of the influences acting thereon that may affect the long-term distribution and abundance of its populations. It is considered to be “favourable” when all of the following criteria are met:

- 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Conservation Objectives specify targets in respect of the integrity, i.e. the ecological structure and functions, and resilience thereof, of a given Natura 2000 site that are necessary for the restoration and maintenance of the favourable conservation status of its Qualifying Interests (EC, 2012).

4.4 Assessment of Adverse Effects

As discussed in Section 4.2 above, direct and indirect impacts on Qualifying Interests of the Lower River Suir SAC and the River Barrow and River Nore SAC arising from changes in water quality and increased noise and light levels may occur during the implementation of the Draft Planning Scheme. In the absence of appropriate mitigation, the Draft Planning Scheme has the potential to compromise the achievement of the Conservation Objectives for Twaite Shad, Atlantic Salmon and European Otter in these two Natura 2000 sites. This would constitute an adverse effect on the integrity of these sites.

Table 4.1 above identifies the elements of the Draft Planning Scheme that have the potential to give rise to significant impacts on these Qualifying Interests in the Lower River Suir SAC or the River Barrow and River Nore SAC and, consequently, adverse effects on the integrity of those sites, in view of their Conservation Objectives.

5.0 CONSIDERATION OF IN-COMBINATION EFFECTS

In addition to assessing the impacts potentially arising from the Draft Planning Scheme on its own, the potential for in-combination or cumulative effects to arise must also be considered. For example, a plan or project may not give rise to significant impacts on water quality when considered alone, but when considered in combination with other plans or projects, may lead to significant impacts.

An in-combination effect arises from incremental changes caused by other past, present or reasonably foreseeable future actions (plans or projects) together with the Draft Planning Scheme. Having considered that the Draft Planning Scheme, individually, has the potential to give rise to likely significant effects on the Lower River Suir SAC and the River Barrow and River Nore SAC, it is also considered that it has the potential to give rise to significant impacts in combination with other plans or projects.

Tables 5.1 and 5.2 below show the risk of significant in-combination effects of the Draft Planning Scheme with other plans and projects, respectively, on Natura 2000 sites. Given the full and proper implementation of the Principal Goal and Specific Objectives relating to Natura 2000 sites, AA and biodiversity, the Draft Planning Scheme will not adversely affect the integrity of any Natura 2000 site in combination with other plans or projects.

Table 5.1 Assessment of Other Plans Within 15km of the Draft Planning Scheme in Respect of their Potential to Result in in-Combination Effects

Plan	Description of plan	In-combination effects
Waterford City Development Plan 2013-2019 (incorporates the Housing Strategy) and SEA Environmental Report for Waterford City Development Plan	The Waterford City Development Plan 2013-2019 sets out an overall strategy for the proper planning and sustainable development of the functional area of Waterford City. 4,800 units of housing (240 ha) is required for the plan period. The Plan requires housing to be located as close as possible to employment opportunities and public transport routes and that are readily accessible to the City Centre. Waterford City Development Plan 2013-2019 supports the development of the North Quays SDZ which is zoned as part of a larger mixed use 'opportunity site'. The opportunity site includes Plunkett Railway Station and lands to the North including Sion Hill House and the former Ard Ri hotel site. The South Quays lie within an Architectural Conservation Area (ACA) and Trinity Within ACA. These areas are 'designated as being the subject of a future urban design framework' which would address, among other issues: <ul style="list-style-type: none"> Roads and links, both internally and from the city centre; New sustainable transport bridge; New development and infrastructure; and, Traffic and movement, parking. 	Positive long-term in-combination effects based on the environmental objectives relating to Natura 2000 sites.
Waterford County Development Plan 2011-2017	The Waterford County Development Plan 2011-2017 sets out the overall strategy for the proper planning and sustainable development of the County for the period 2011-2017. Key strategic sites supporting and fostering entrepreneurship are promoted. The challenges of climate change and increased flood risk are to be managed.	Positive long term in-combination effects based on the environmental objectives relating to Natura 2000 sites.
Kilkenny County Development Plan 2014-2020	This Development Plan sets out Kilkenny County Council's policies and objectives for the proper planning and sustainable development of the County from 2014 to 2020.	Positive long-term in-combination effects based on the environmental objectives relating to Natura 2000 sites.
Waterford Planning, Land Use and Transportation Study (PLUTS) (2004)	The Waterford Planning, Land Use and Transportation Study 2004 (PLUTS) recognises the potential of the North Quays as an extension of the city centre and prioritises a new city centre sustainable transport bridge and a new public transport interchange at North Quay. Key recommendations of the PLUTS include: <ul style="list-style-type: none"> 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; and, A future 3rd bridge crossing downstream on the River Suir which would complete the loop around the system connecting the N25 Bypass, the River Suir Bridge and the Outer Ring Road. The PLUTS is an integrated framework of plans and solutions to address the needs of the City in both land use and transportation terms up to the year 2020. The study aims to achieve a more balanced growth between north and south sides of the River Suir, incorporating a new City Centre Bridge for pedestrians and cyclists and the provision of a rail passenger platform on the North Quays.	No in-combination effects are predicted.
Economic Strategy for Waterford City and County (2013)	The strategy includes a number of proposals for Waterford City redevelopment of the North Quarter and waterfront. Key long term economic objectives (2018) outlined in the report include: <ul style="list-style-type: none"> Assess the roles of South and North Quays and to better connect with the waterfront. Agree demolition of much of North Quays silos and develop an amenity area, open up stretches of South Quays, less parking and more defined zones of different activity. Potential for a self-contained river-side village – south-facing and often sheltered from the prevailing winds. Waterside restaurants, festival shopping, boutique hotels, apartments, offices, ateliers and galleries beside a riverside boardwalk. Scope for development (probably residential and hotel-led) that benefits from the south facing aspect and views to the core city centre. Look to upgrade and diversify the existing hotel offer in Waterford City to provide more variety and higher quality service and experience. For example long term serviced apartments (whether for corporate lets or holiday lets), a genuine boutique hotel and perhaps an international brand to benefit from their marketing databases. The strategy aims to identify measures to maximise the economic development of Waterford and its wider hinterland/region and, in particular, to enhance the role of Waterford City as a generator of growth and a strong and dynamic focus for development of the wider region. Promotes the development of the North Quays as it has potential for a self-contained river-side village using a fresh creative strategy.	Positive long-term in-combination effects.
Waterford North Quays - Urban Design Framework Plan (2008)	The Urban Design Framework Plan for the North Quays presents a broad vision for the North Quays, providing basic development concepts and key urban design guidelines, bringing together an integrated framework plan for the area. Outlines the need for more balanced growth between north and south sides of the River Suir, a new city centre pedestrian and cycle bridge, the provision of a rail platform on the North Quays and the development of a mix of uses on the site.	No in-combination effects are predicted.
Ferrybank-Belview Local Area Plan 2009 (under review)	The Ferrybank- Belview Local Area Plan (LAP) 2009 (under review) outlines a strategy for the proper planning and sustainable development of an area of land stretching from Grannagh to Belview and from the River Suir to the line of the Waterford bypass, adjacent to the SDZ. The policies, objectives and zoning objectives for existing and future development of the Ferrybank area have been considered as part of the Draft Planning Scheme proposals. Specifically transport and Open Space objectives to include: <ul style="list-style-type: none"> OS1.1, OS3.1, OS2.1 T7 Facilitate the delivery of a proposed green route. T12 Keep disused railway line free from development. NE1 Ensure the protection of views. NE2 Restrict development on the SAC and the proposed NHA. 	No in-combination effects are predicted.
One Waterford: Local Economic & Community Plan 2015-2020	The Plan identifies and delivers positive step changes that will deliver the economic and social transformation of Waterford, to grow the local and regional economy, strengthen Waterford's role as the regional leader of the South East, ensure that our communities are strong and engaged, and ensure that all people have an excellent quality of life. An objective of the Plan is to revitalise, regenerate and improve the urban environment, including realising the economic potential of the North Quays by 2019.	No in-combination effects are predicted.

Plan	Description of plan	In-combination effects
Report of the Waterford Re-Organisation Implementation Group and Economic Strategy for Waterford City and County, One Waterford – Delivering Jobs, Efficiency and Growth (2013)	The Plan outlines an Economic Strategy for Waterford City and County. The Plan determines that certain key interventions are needed to enable the sustainable growth and recovery of the economy of Waterford and the South East and addresses the inhibitors of growth. The development, improvement of public realm and commercial opportunities of the North Quays are recommended to help develop the critical mass of Waterford as a Gateway City.	No in-combination effects are predicted.
Waterford City & County Council Corporate Plan 2014-2019	The Corporate Plan outlines strategic priorities and objectives for the Council for its lifetime, and is reflective of the needs and priorities of all the communities and citizens of Waterford.	No in-combination effects are predicted.
Waterford City Retail Strategy (2012)	The Retail Strategy provides a quantitative and qualitative analysis of the potential of Waterford City to accommodate further retail development. The strategy outlines policies with the aim of meeting the City's shopping needs in a way that is efficient, equitable and sustainable. Additional convenience and comparison retail floor space is required for Waterford City.	No in-combination effects are predicted.
Waterford Climate Change Strategy (2011)	The Waterford City & County Council's Climate Change Strategy aims to implement a series of measures that will result in Green House Gas reductions. Climate change measures will be addressed under the Strategic Environmental Objectives (SEOs).	Positive in-combination effects expected.
Waterford Kilkenny Advisory Regional Strategic Plan 2015-2020	The Teagasc Strategic Plan for the Waterford Kilkenny Advisory Region outlines ways to help farmers exploit their natural advantages and become world leaders in sustainable agricultural production. Will not influence the Draft Planning Scheme as the SDZ is located on a Brownfield Urban site.	No in-combination effects are predicted.
Strategic Plan 2014-2017 Waterford – Active People, Active Place	The Plan's objective is the development and delivery of sport and physical activity opportunities in County Waterford.	Positive in-combination effects expected.
Waterford City Centre Urban Renewal Scheme (2015)	The Urban Renewal Scheme outlines public realm upgrades, alterations to traffic circulation and the demolition of a number of old buildings in the hope to upgrade the urban centre. The Urban Renewal Scheme focuses on the city centre.	No in-combination effects are predicted.
Kilkenny City and Environs Development Plan 2014-2020 – Appendix A Retail strategy	The City and Environs Development Plan looks at the 2008 update to the Kilkenny City and County Retail Strategy and takes into account the economic changes in the city since. The 2008 update reviewed population figures and forecasts, updated floor space, household and shoppers surveys and carried out a broad capacity assessment for the requirement of additional retail floor space. Indicative floor space requirements for Kilkenny for 2020 are 1,599 m ² convenience and 16,502 m ² comparison. Ferrybank has permitted convenience floor space of 4,577 m ² and comparison floor space of 4,341 m ² yet to be developed. Waterford is identified within the strategy as the Gateway of the region.	No in-combination effects are predicted.
Fisheries Local Action Group (FLAG) Local Development Strategy 2016	The Strategy assesses the development needs of the FLAG area, outlining objectives and actions to further develop the industry within the area. The strategy does not relate specifically to the site proposed. The nearest location included in the strategy is Cheekpoint, 4km downstream.	No in-combination effects are predicted.
Waterford Children & Young People's Services Committee Children & Young People's Plan 2015-2018	The Plan identifies the needs of children & young people and lays out a set of priority actions which are intended to improve service delivery and achieve better outcomes for all children in the area.	No in-combination effects are predicted.
Regional Planning Guidelines for the South East Region 2010-2022	The Regional Planning Guidelines are intended to constitute a strategic planning framework for the period 2010-2022 for the development of each region and for inter-regional cooperation. The strategic policies and objectives set out in the Regional Planning Guidelines will form the backdrop for socio-economic planning by national and regional agencies and will constitute the policy framework within which county, city, town and local area development plans will be made. The Regional Planning Guidelines support the re-development of the North Quays was included as a Critical Enabling Investment Priority in the Regional Planning Guidelines in 2004. A rail passenger platform on the North Quays and a river crossing to provide a link across the river are outlined as objectives.	Due to the high-level, strategic nature of this Plan, exact interactions are unknown, but likely to result in positive in-combination effects.
Regional Spatial and Economic Strategies (once it is prepared)	It is expected that the South East Regional Assembly will prepare the Regional Spatial and Economic Strategies for the South East region once the National Planning Policy Framework is finalised.	In-combination effects are unknown.
River Basin Management Plans and Programme of Measures (2nd Cycle in preparation Department of Communications, Climate Action and Environment)	The River Basin Management Plans, once produced, will ensure the Rivers Suir and Barrow achieve "good" status by 2027.	Positive in-combination effects resulting in improved water quality.
Catchment Flood Risk Assessment and Management (2011)	The Catchment Flood Risk Assessment and Management (CFRAM) Programme was brought into place in Ireland in 2011, as a strategy for medium to long term flood risk reduction and management. The Programme is lead by local authorities as well as the OPW, and it incorporates core components of the National Flood Policy (2004) and requirements of the Floods Directive. The Programme is made up of three phases as follows: The Preliminary Flood Risk Assessment (PFRA) 2011; The CFRAM Studies and parallel activities 2011-2015; Implementation and Review 2016 onwards. The outcomes thus far from the project are: Preliminary Flood Risk Assessment 2011; Flood Hazard Mapping 2014; Flood Risk Management Plans 2015. The South Eastern River Basin District CFRAM Study was the third CFRAM Study to be commissioned. UoM16 (Suir) is covered by the Suir pilot CFRAM Study and covers an area of approximately 3,520km ² . The Natura Impact Statement for the proposed draft Suir Flood Risk Management Plan (FRMP) undertaken in September 2016 concluded that the FRMP will not have a significant adverse impact on the screened in European Sites of Hook Head SAC, Lower River Suir SAC and River Barrow and River Nore SAC provided the mitigation measures outlined in Chapter 6 of the Draft NIR are adopted in the FRMP and at project stage. Elements of the plan that are likely to have impacts on Natura 2000 sites are the alteration of the North Quay Wall, artificial lighting of the North Quay, light spill onto the River Suir and disturbance associated with construction. Having regard to elements of the Draft Planning Scheme that are likely to result in such impacts, it is considered that, with mitigation in place, there will be no significant in-combination effects on Natura 2000 sites as a result of the Draft Planning Scheme.	No in-combination effects are predicted.
Draft Flood Risk Catchment Management Plans for the South East	The objectives of the Draft Flood Risk Catchment Management Plans for the South East are to identify flood risk, to identify structural and non-structural measures and options for managing flood risk.	Unlikely in-combination effects as the River Suir adjacent to the Draft Planning Scheme will not be subject to significant alterations.

Plan	Description of plan	In-combination effects
South East Region Employment Action Plan 2011	The Plan revisits the Regional Competitiveness Agendas for the South East region, taking account of recent developments and analysis, and outlines specific actions that can be taken to maximise employment creation in the region in the short and medium-long-term. Promote Waterford as a gateway, taking action to maximise employment creation.	No in-combination effects are predicted.
Southern Regional Waste Management Plan 2015-2021	The strategy is a guide to help us manage our wastes in a safe and compliant manner, through policies and actions. It provides policy direction in a broad manner, setting out what we want to achieve and a roadmap of actions to get us there.	Positive in-combination interaction resulting from more sustainable waste management.
South Eastern River Basin District River Basin Management Plan 2009-2015 (to be replaced in 2017 for 2 nd Cycle RBDs)	The South Eastern River Basin Management Plan aims to protect all waters within the district and where necessary, improve waters and achieve sustainable water use. The SEOs have included an objective to maintain the water quality standards in the South East River Basin Management Plan.	Long-term positive in-combination effects arising from actions in relation to the Water Framework Directive and the SERBD Management plan to protect and restore protected areas.
Southern and Eastern Regional Operational Programme 2014-2020	The Southern and Eastern Regional Operational Programme 2014-2020 is intended to support and facilitate Member States and Managing Authorities in the implementation of the partnership principle. A priority objective is to revitalise, regenerate and improve the urban environment in the designated urban centres as part of integrated urban strategies. Waterford Gateway was awarded funding in 2014 through the Designated Urban Centres Grant Scheme 2014-2020, with aims to regenerate substantial brownfield sites in the city centre, while improving accessible public realm and transport modes.	No in-combination effects are predicted.
South East Economic Development Strategy (SEEDS) 2013-2023	The SEEDS aims to identify the economic needs of the Southeast, with the aim of considering what steps can be taken to improve the employment situation, examining the region's particular circumstances and making specific proposals to create jobs and grow the regional economy.	Positive in-combination effects.

Table 5.2 Assessment of Projects Within 15km of the Draft Planning Scheme in Respect of their Potential to Result in In-Combination Effects with the Draft Planning Scheme

Project	Description of project	In-combination effects
Waterford-New Ross Greenway	The proposed development of the disused railway line on lands which extend from within Waterford City and County Council's administrative boundary through to Rosbercon, New Ross as a cycle and pedestrian route. The route which is 22km in length will begin at Abbey Road, Ferrybank, Waterford and will follow the disused line through or in close proximity to the townlands of Abbeylands, Rathcullheen, Gorteen, Drumdowney Lower, Rathpatrick, Lufany, Curraghmore, Ballyrowragh, Scarthamoe, Rathinure, Rochestown, Aylwardstown, Carricklone, Ballyverneen, Forestalstown, Shanbogh Upper and Raheen (Rosbercon), Co. Kilkenny.	No in-combination effects are predicted. The Greenway will be integrated into the design of the SDZ and will utilise the riverside walkway and sustainable transport bridge.
Waterford Sustainable Transport Bridge	The Waterford North Quays – Urban Design Framework Plan prepared in 2008 set out a broad vision for the area comprising several development concepts and urban design guidelines including infrastructure options to include a bridge crossing connecting the North Quays. The need for a city centre sustainable transport bridge is outlined in objectives and policies within the Waterford City Development Plan 2013-2019. The Ferrybank-Bellview Local Area Plan 2009 and the Waterford Planning, Land Use and Transportation Study 2004 (PLUTS). These plans recognise the potential of the North Quays as an extension of the city centre and the requirement of a pedestrian access for such development to progress. The proposed sustainable transport bridge will span from the north quays to the south quays, where it will dock at the Clock Tower on Meagher's Quays.	This project is a critical piece of enabling infrastructure for the SDZ. Therefore, it has been considered in detail in the drafting of the Draft Planning Scheme and assessed in conjunction with it in this Draft NIR. No in-combination effects are predicted.
Waterford Pedestrian Bridge Ground Investigations Project	Ground Investigations have begun and will continue to be undertaken within the Draft Planning Scheme area and within the footprint of the River Suir SAC to inform the bridge design.	No in-combination effects are predicted.
McInerney Homes Ltd – Housing Development	Construction of 42 dwelling houses and associated boundary treatments, drainage connections and associated site works at Bowe's Land, Gibbethill Quarry Road 2km upstream of the Draft Planning Scheme, on the south side of the River Suir.	No in-combination effects are predicted.
Michael Hanrahan – Housing Development	Construction of 36 dwelling houses with associated site developments and services installation at Gracedieu Road/Quarry Road/Bilberry Road 1.6km upstream of the Draft Planning Scheme, on the south side of the River Suir.	No in-combination effects are predicted.
Dermot Fitzpatrick – Housing Development	Construction of 97 dwelling units, a two storey crèche, change of use of Prospect Lodge (protected structure) from residential to office use and four bed dwelling including demolitions, landscaping, boundary treatment, outfall sewers to Bilberry Road and River Suir and vehicular access from Gracedieu Road 1km upstream of the Draft Planning Scheme, on the south side of the River Suir.	No in-combination effects are predicted.
Waterford City Flood Alleviation Scheme	Waterford City Flood Alleviation Scheme, Grattan Quay, Waterford City, 600m upstream of the Project, on the south side of the River Suir.	No in-combination effects are predicted.
Waterford Flood Alleviation Scheme Phase 1	Flood protection works on the River Suir upstream at its confluence with John's River at Scotch's Quay/George's Quay along the length of the South Quay to Rice Bridge and on John's River from its confluence with the River Suir at Scotch Quay/ George's Quay, in immediate proximity to the Draft Planning Scheme on the south quays.	No in-combination effects are predicted.
Waterford Greenway Cycle and Pedestrian Route	A 9.6km Greenway between Kilmeehan and Bilberry, Waterford, 600 m upstream of the Draft Planning Scheme, on the south side of the River Suir, which forms part of the Waterford to Dungarvan 'Déise Greenway'.	This project has been considered in the assessment of the Draft Planning Scheme as it integrates with it. No in-combination effects are predicted.
Stafford Bonded Warehousing Ltd – Warehouse Development	Construction of an 11.2 m high warehouse with external lighting, boundary fencing and associated site works at Airport Business Park, Killowen, 9.5km south of the Draft Planning Scheme.	No in-combination effects are predicted.
ESB Substation Development	ESB Waterford 110 kV station at Gracedieu Road, Waterford, 900 m upstream of the Draft Planning Scheme, on the south side of the River Suir.	No in-combination effects are predicted.
SE Construction (Kent) – Housing Development	Construction of Phase 3: 44 No. dwelling houses at Cluain Lárach, Knockenduff, Tramore including alterations to existing services. This project is 12km south west of the Draft Planning Scheme.	No in-combination effects are predicted.
Noel Frisby Construction Ltd – Housing Development	Construction of 18 houses including associated works at Carrickphierish, Gracedieu, Waterford, 3km west of the Draft Planning Scheme, on the south side of the River Suir.	No in-combination effects are predicted.

Project	Description of project	In-combination effects
Uptown Property Development Ltd – Industrial Unit	Construction of six light industrial units and associated site works at Killowen, Co. Waterford, 10km from the Draft Planning Scheme.	No in-combination effects are predicted.
Roadstone Ltd – Permission for continuation of quarry activities	Permission for the continuation of quarry activities within a 62.04 ha area at Aglish North, 5.3km north-west of the Draft Planning Scheme.	No in-combination effects are predicted.
Seed Technology Ltd – Seed Processing Development	Construction of a seed processing and storage building (4,836m ²), fertilizer bagging and storage building (6,094m ²), 2 No. external dust extraction silos, single-storey office building and car parking (150m ²), weighbridge, external fertilizer pallet storage yard, 4No. external fire-water storage tanks, storm water attenuation pond, on site borewell and associated pump house, wastewater treatment system and percolation area, extension of existing site access road, infilling of low lying portion of site with excavated material from the development, signage, boundary fencing and landscaping together with all associated site development works at Gorteens, 5.12km east of the Draft Planning Scheme.	No in-combination effects are predicted.
Gianbia Ingredients Ireland DAC Dairy processing facility	Amendments to a previous permission for a dairy processing facility including a reduction in overall floor space, a reduction in the height of the drier tower and other minor changes to the buildings at Gorteens, Belview, 4.1km east of the Draft Planning Scheme, on the north side of the River Suir.	No in-combination effects are predicted.
Gianbia Ingredients Ireland DAC extension to existing Dairy processing facility	Extension to existing milk powder processing plant including a new warehouse, a five storey production building, evaporating building, new boiler buildings, new dairy intake building and various other extensions at Gorteens, Belview, 4.1km east of the Draft Planning Scheme, on the north side of the River Suir.	No in-combination effects are predicted.
Gianbia Ingredients Ireland DAC extension to existing milk powder processing plant	Extension to existing milk powder processing plant including alternations to existing roads, drainage, services, a new 97 space car park and associated landscaping and lighting at Gorteens, Belview, 4.2km east of the Draft Planning Scheme, on the north side of the River Suir.	No in-combination effects are predicted.
Target Fertilisers Ltd – Industrial Development	Construction of an Industrial Warehouse Building for the storage and bagging of fertiliser products (this Planning Application will supersede a previous Application for a similar building on this site which was Granted Permission under Planning Reg. No.15/263) together with alterations to site boundaries including new boundary wall and fencing and all associated site works and ancillary services at Gorteens, Slieverue, Waterford, 5.4km east of the Draft Planning Scheme, on the north side of the River Suir.	No in-combination effects are predicted.
Glanway Ltd Waste Treatment Facility	Permission for an extension of use including additional processing and an increase in throughput up to 95,000 tonnes per annum of municipal waste material at waste facility. The Applicant also seeks permission for a prefabricated building with an office, canteen and toilet; alterations to site works and retention of existing doors on the north elevation of Store No.5 (P11/397) and on the east elevation of Store No. 6 (P13/585) at Belview Port, Gorteen, 5.1km east of the Draft Planning Scheme.	No in-combination effects are predicted.
Highfield Solar Ltd – Solar Development	The development of a Solar PV Energy development within a total site area of up to 10.6 ha, to include one single-storey electrical substation building, electrical transformer/inverter station modules, solar PV panels ground mounted on steel support structures, access roads, fencing and associated electrical cabling, ducting and ancillary infrastructure at Derrynahinch, Knocktopher, 2.3km north of the Draft Planning Scheme.	No in-combination effects are predicted.
Kent Quarries Ltd – Waste Facility	Permission for a C&D recycling facility for the recycling of construction and demolition waste and for the importation and recovery of non-hazardous soils, subsoil and other similar material. Material will be crushed and screened using existing mobile quarry plant and machinery and non hazardous soils will be used in the existing rehabilitation scheme for the quarry at Glenmore, Co. Kilkenny, 8.2km north of the Draft Planning Scheme.	No in-combination effects are predicted.

6.0 MITIGATION

6.1 Mitigation in the Draft Planning Scheme

Mitigation for the potential impacts identified in this Draft NIR is contained within the Draft Planning Scheme. This existing mitigation is described in detail in this section.

Principal Goals

The following Principal Goal of the Draft Planning Scheme places the protection of the Lower River Suir SAC and the River Barrow and River Nore SAC at the centre of Waterford City & County Council's aims for the North Quays SDZ. This is the most critical mitigation measure necessary to protect Natura 2000 sites.

"To provide for the protection, enhancement and improvement of the natural environment, including the avoidance of adverse effects on European sites, particularly the Lower River Suir SAC and the River Barrow and River Nore SAC."

Water Quality

The following provisions of the Draft Planning Scheme provide for the protection of water quality during the development of the North Quays SDZ, which is essential to the prevention of adverse effects on the Lower River Suir SAC and the River Barrow and River Nore SAC.

"Specific Objectives

PSI 10 *To achieve best practise and innovations in SuDS design as part of the planning scheme, including the successful coordination of surface water management with ecology and amenity functions of open space and landscaped areas. All planning applications shall be accompanied by a surface water drainage plan which will include proposals for the management of surface water within sites in accordance with requirements as listed in Section 3b.1.3 above, protecting the water quality of the existing water bodies and ground water sources, and retrofitting best practice SuDS techniques on existing sites, where possible.*

PSI 11 *To ensure the protection of surface and ground water quality in the plan area and surrounding areas.*

PSI 12 *Contaminated surface water such as oil/fire water/detergents will be intercepted and stored appropriately for future treatment and disposal."*

Biodiversity

In accordance with the Principal Goal of protecting biodiversity, particularly Natura 2000 sites, the Draft Planning Scheme makes the following provisions in relation to the ecological objectives of the SDZ and the legal requirement to assess each individual development with regard to its potential to affect designated sites. Apart from mitigating against the potential negative effects of other elements of the Draft Planning Scheme, these provisions also strengthen those elements of the Draft Planning Scheme that have the potential to have positive or mitigatory effects.

"Specific Objectives

PSI 19 *Any plan or project with the potential to give rise to significant direct, indirect, secondary impacts or through indirect or cumulative impact, on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article 6 of the EU Habitats Directive (92/43EEC) and associated legislation and guidelines informing decision making. All*

proposals are required to consider the mitigation measures contained in the Natura Impact Report of the Draft Planning Scheme.

- PSI 20** *All development should include proposals on how they address the natural heritage in terms of conservation, management, and improvements to the local biodiversity in the urban environment. Developments shall incorporate landscaping and other design features that have the potential to improve or enhance existing natural habitats, ecological corridors and blue and green infrastructure.*
- PSI 21** *All development proposals will be encouraged to include the planting of appropriate native flora to support and develop habitats for both terrestrial and aquatic fauna. Planting should, as far as possible, be limited to native plant species and enhance the riverine and riparian environment and protect the native flora and fauna in the area.*
- PSI 22** *All future proposals shall ascertain the extent, if any, of invasive species, and implement measures to control or, where possible, eradicate them from the relevant site.”*

Greening

The following provisions of the Draft Planning Scheme will contribute to both the protection of water quality and the general enhancement of the SDZ for biodiversity, thereby further safeguarding the Lower River Suir SAC and the River Barrow and River Nore SAC from negative impacts.

“Specific Objectives

- PSA 44** *To require future development proposals to build a ‘green’ strategy into the fabric of the development and to submit proposals in relation to green infrastructure at planning application stage.*
- PSA 45** *To maximize planted areas to avail of the southerly exposure and to create protected areas to shield plants and people from the elements and particularly the prevailing winds which funnel down the river.*
- PSA 46** *To require the use of appropriate planting for the site conditions. It may not be possible for instance to plant significant areas of large mature trees therefore the use of alternative maritime hardy plants would be appropriate in raised planters.*
- PSA 47** *To require contemporary design solutions where the hardscape and softscape complement one another with the use of colour, texture, form in the planting selection.*
- PSA 48** *To maximise and exploit the changes in levels across the site and to form these transitions as green zones.*
- PSA 49** *To require clear delineation of the boundaries and transitions between private space, communal space and public space.*
- PSA 50** *To agree with Waterford City and County Council detail specifications of work for all public open space and green infrastructure.”*

Planning Strategy

The Draft Planning Scheme mitigates for the potential effects of its overall Vision for the North Quays by the Specific Objective PSS1, which states that “*All future planning applications shall comply with the relevant Waterford City Development Plan policies and objectives*”. The relevant policies and objectives of the City Development Plan are listed in Section 6.2 below.

6.2 Mitigation in the Waterford City Development Plan 2013-2019

Policies and Objectives for the protection of the natural environment are contained within the Waterford City Development Plan 2013-2019. These include Policies and Objectives with the purpose of protecting Natura 2000 sites. As the Draft Planning Scheme sits within the framework of this plan, the mitigatory Policies and Objectives of the same apply to the Draft Planning Scheme. The Policies and Objectives relating to Natura 2000 sites are as follows:

- Policy 1.1.4** *To protect, restore and improve, where appropriate, areas of natural heritage value. To protect and promote the integrity of all Natura 2000 sites within the City and subsequently the awareness of the City's rich biodiversity.*
- Policy 1.1.11** *To minimize any adverse impacts on the environment through the implementation of policies on waste management, control of emissions and the promotion of energy efficiency and implementation of a climate change strategy for Waterford City.*
- Policy 10.4.1** *To conserve, manage and where possible enhance the City's natural heritage.*
- Policy 10.4.2** *To provide for the protection, conservation and enhancement of wildlife habitats within designated and proposed sites, at the Suir estuary, at Kings Channel, Ballinakill Downs and at Kilbarry/Ballynakill Marsh and to maintain the conservation value of these designated and proposed designated sites.*
- Policy 10.4.3** *To ensure that plans and projects with the potential to have a significant impact, directly or through indirect or cumulative impact, on Natura 2000 sites (River Suir SAC) are subject to Habitats Directive Assessment (Appropriate Assessment) under Article 6 of the Habitats Directive (92/43EEC) and associated legislation and guidelines informing decision making.*
- Policy 10.4.4** *To improve sustainable social and physical access to the natural heritage and the recreational facilities of the City.*
- Policy 10.4.5** *To promote increased understanding and awareness of the City's natural heritage and local biodiversity.*
- Policy 10.4.6** *To promote increased understanding and awareness of invasive species and their management and work with other agencies to address the issue.*
- Policy 10.4.7** *To provide for the protection and conservation of wildlife habitats.*
- Objective 10.4.1** *To bring the Kilbarry/Ballynakill Marsh pNHA and the King's Channel pNHA into public ownership.*
- Objective 10.4.2** *To provide connectivity between the Kilbarry Park and the Outer Ring Road and the general wider City area through the development of a range of sustainable walkways and cycleways.*
- Objective 10.4.3** *To promote the integration and improvement of natural watercourses in urban renewal and development proposals.*
- Objective 10.4.4** *To consult with the Fisheries Board and the National Parks & Wildlife Service on all development proposals concerning riparian areas and watercourses and to take account of the*

requirements for the protection of fisheries habitat during construction and development works at river sites.

Objective 10.4.5 *To construct additional wetland areas and where appropriate bring into public ownership.*

Objective 10.4.6 *To assess all proposed developments in order to determine if they are likely to impact, directly or through indirect or cumulative impact, on designated natural heritage sites and protected species in accordance with the relevant legislation.*

Objective 10.4.7 *On approving development proposals to ensure that sufficient mitigation measures to avoid damage or destruction of the breeding sites of strictly protected species (otter, bat, shad & lamprey species) are provided for, or, where necessary, have appropriate derogation licences in accordance with the EU Habitats Directive prior to the granting of permission for the development.*

Objective 10.4.8 *On approving development proposals for sites containing known invasive species the Planning Authority will consider, as appropriate, the use of conditions for the control and eradication of invasive species.*

Objective 10.4.9 *To prepare and implement a management plan for the Waterford Nature Park including the Kilbarry pNHA and the surrounding buffer area.*

Objective 10.4.10 *To prepare a City habitat map.*

Objective 10.4.11 *To support the green infrastructure concept in development proposals where feasible.*

Policy 11.2.1 *To promote the achievement of good ecological status, good ecological potential and good chemical status for all river water by 2021 and groundwater by 2027 & if possible within the lifetime of the Plan.*

Objective 11.2.1 *To implement the European Union Water Framework Directive through the implementation of the relevant parts of the South East River Basin Management Plan and programme of measures specific to Waterford City.*

Objective 11.2.2 *To take into consideration the South East River Basin Management Plan when considering new development proposals.*

Objective 11.2.3 *To implement the South East River Basin Management Plan and its programme of measures through the provision of good environmental management as reflected in the policies and actions herein.*

6.3 Implementation and Monitoring of Mitigation

The responsibility for implementing this Draft Planning Scheme lies solely with Waterford City & County Council, as the development agency in this case, through the planning consent process. Applications for development within the North Quays SDZ must be consistent with the Draft Planning Scheme. Furthermore, if it cannot be demonstrated beyond reasonable scientific doubt that the criteria established by the mitigation prescribed in this Draft NIR will be met, consent will not be granted.

Monitoring of the implementation of and adherence to the mitigation will continue throughout the planning process. Failure to implement the prescribed mitigation will be identified and addressed through the statutory planning enforcement mechanism established by the Planning and Development Acts, 2010-2015.

7.0 RESIDUAL EFFECTS

It is considered that, owing to the incorporation of the mitigation described in Section 6 of this Draft NIR into the Draft Planning Scheme through the iterative assessment process, there are no residual effects arising from the Draft Planning Scheme, either individually or in combination with other plans or projects, on the integrity of the Lower River Suir SAC, the River Barrow and River Nore SAC or any other Natura 2000 site, in view of their Conservation Objectives.

8.0 CONCLUSION

In view of best scientific knowledge and in view of the Conservation Objectives of the relevant Natura 2000 sites, this Draft NIR has determined that, given the full and proper implementation of the mitigation already contained in the Draft Planning Scheme, there will be no adverse effect on the integrity of Natura 2000 sites arising from the adoption and implementation of the Draft Planning Scheme, either individually or in combination with other plans or projects.

Residual impacts following the full and proper implementation of mitigation will not be significant in the context of the AA process as they will not adversely affect the integrity of any Natura 2000 sites, in view of their Conservation Objectives. Therefore, Stage 3 (Assessment of Alternative Solutions) and Stage 4 (Imperative Reasons of Over-riding Public Interest) are not necessary. Thus, the AA process has informed the preparation of the Draft Planning Scheme so that it can be implemented successfully and without adversely affecting the integrity of Natura 2000 sites and there is no reasonable scientific doubt in that regard.

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