



N25 Rosslare Europort Access Road

Natura Impact Statement

May 2022

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1 Introduction

1.1 Overview

The N25 along with the connecting N11 are vital strategic transport corridors providing national and regional connectivity with Rosslare Europort, a critical gateway with continental Europe and the UK. Rosslare Europort is Ireland's second largest port for unitised freight and passenger numbers and provides the shortest sea crossing between Ireland & mainland Europe. The impacts of Brexit have significantly intensified Rosslare Europort's strategic importance as a gateway for Irish trade and tourism. The N25 Rosslare Europort Access Road project aims to support the future resilience of this critical international land-sea corridor by delivering a safe, sustainable, high-quality and cost-effective direct transport connection with Rosslare Europort.

The N25 together with the N11/M11 connect Rosslare Europort with the rest of Ireland and together they form a critical land-sea corridor that is part of the TEN-T European Transport Network. TEN-T requires EU member states to develop designated corridors to a high-quality standard in order to strengthen social, economic and territorial cohesion in the EU. 'Enhanced Regional Connectivity' and 'High Quality International Connectivity' are key National Strategic Outcomes in Project Ireland 2040, while the Belfast – Dublin – Rosslare Europort axis also forms Ireland's Eastern Economic Corridor as supported by the Southern Regional Spatial and Economic Strategy and the draft Wexford County Development Plan (2021-2027). Together with the separate proposed N11/N25 Oilgate to Rosslare Harbour project, this "last mile" infrastructure project will complete this strategic international transport corridor. The project has been developed in close consultation with Rosslare Europort to ensure its full integration with the Port Masterplan development. Development proposed under the Masterplan will increase operational capacity in the port and is due to commence implementation in 2022. The full integration of the separate projects will provide a seamless last mile transfer between land and sea, delivering fast and efficient connectivity for people and goods travelling through Rosslare Europort.

Wexford County Council is proposing to provide improved access to Rosslare Europort from the N25 National Primary Road to ensure and secure the sustainability and competitiveness of this key transport link. The main objectives of the project are as follows:

- Improve accessibility and connectivity to Rosslare Europort in order to secure the sustainability and competitiveness of this key international transport corridor;
- Improve road safety, particularly in the village of Rosslare Harbour;
- Avoid or minimise negative impacts on the existing environment;
- Improve accessibility and social inclusion in Rosslare Harbour village by managing or removing Port traffic;
- To promote balanced regional development by improving access to the south-east and Rosslare Europort;
- Promote sustainable and active travel by integrating high quality cycling and walking infrastructure.

1.2 Requirement for Appropriate Assessment

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) is European Community legislation regarding nature conservation. The intention of the Directive is to aim to ensure biodiversity through the conservation of natural habitats and wild fauna and flora in Europe. The Habitats Directive is transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011, including the amendments in S.I. No. 293 of 2021, as amended, and the Planning and Development Act 2000, as amended.

The Habitats Directive requires that where a plan or project is likely to have a significant effect on a European site, while not directly connected with or necessary to the nature conservation management of the site, it will

be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

"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 the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project 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".

Mott MacDonald Ireland Ltd. prepared a report for screening for Appropriate Assessment (document number: 229100548-MMD-0000-RE-RP-C-0028) which examined the potential for the project to have significant effects on European sites. The screening report concluded a potential for the proposed project to result in significant effects on the following European Sites:

- Slaney River Valley SAC (000781)
- Saltee Islands SAC (000707)
- Wexford Harbour and Slobbs SPA (004076)
- Lady's Island Lake SPA (004009)
- The Raven SPA (004019)
- Tacumshin Lake SPA (004092)

Thus, the requirement of Article 6(3) of the Habitats Directive applies, and an Appropriate Assessment is required.

An Appropriate Assessment, as carried out by the Competent Authority (in this case an Board Pleanála), is a detailed assessment of the impacts of a plan or project (either alone or in combination with other projects or plans) on European sites to determine whether the impacts could have an adverse effect on the integrity of the European sites. The integrity of a European sites is defined by the conservation objectives of the site and its structure and function.

This Natura Impact Statement (NIS) has been produced to inform the competent authority in carrying out their Appropriate Assessment of the proposed project. The NIS considers in greater detail those elements of the proposed project which have been identified through the screening assessment as having potential for significant effects on European sites, and further examines the implications of the project on the integrity of the European sites with respect to the site's conservation objectives. Where adverse impacts on a European site's integrity are identified, mitigation measures are prescribed to avoid these impacts or reduce them to a level where they will no longer adversely affect the integrity of the site.

1.3 Assessment Methodology

This NIS has been prepared in accordance with all relevant guidance and legislation including:

- EC (2001) Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC: Clarification of the concepts of alternative solutions and imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission;
- DEHLG (December 2009, revised February 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities;
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice C (2018) 7621;
- European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended; and
- Court of Justice of the European Union (CJEU) and Irish Case Law pertaining to the Habitats Directive.

1.4 Desk Study

This assessment includes a desk-based review of available records of protected species and habitats including the following sources:

- Conservation Status Assessment Reports (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive;
- Site Synopsis and Conservation Objective Reports available from NPWS;
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans, and Conservation Management Plans; and
- Existing relevant mapping and databases e.g. waterbody status, species and habitat distribution etc. (sourced from the Environmental Protection Agency - <http://gis.epa.ie/> the National Biodiversity Data Centre - <http://maps.biodiversityireland.ie> and the National Parks and Wildlife Services - <http://www.npws.ie/mapsanddata/>, and the Forestry Service (Department of Agriculture, Food and the Marine).

1.5 Field Survey

1.5.1 Walkover Surveys

Field walkover surveys were conducted on the site by an experienced ecologist during April and May 2021, and March 2022. Habitat survey methods had regard to 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., Heritage Council, 2011). Habitat classification was as per Fossitt (2000).

During site walkovers searches were conducted for Invasive species listed under the Third Schedule to the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011), as amended.

Fit to European Annex 1 habitats was informed with reference to the EU Interpretation Manual for EU Habitats (European Commission, 2013) having regard to the Irish Vegetation Classification¹.

The habitat survey had regard for habitats which may offer supporting habitat for Qualifying Interests and Special Conservation Interests associated with European Sites.

During walkover surveys evidence of protected mammals such as Otter and badger were recorded.

¹ ERICA - Biodiversity Ireland

Breeding birds of conservation concern (Gilbert *et al.*, 2021) were recorded, the surveys of which were conducted during the main breeding bird season.

1.5.2 Winter Bird Surveys

Wintering bird surveys were carried out by experienced ornithologists between September 2019 and March 2020 (wintering season 2019/2020), between October 2020 and March 2021 (wintering season 2020/2021), and between October 2021 and March 2022 (wintering season 2021/2022). These surveys were conducted using the standard methodology (Lewis and Tierney 2014). For wintering seasons 2019/2020 and 2020/2021, survey data related to the N25 Rosslare Europort Access Road Project was collected from Rosslare Harbour Section 1 (Figure 1.1).

Figure 1.1: Vantage Points (VP) and Count Sections for Rosslare Bay 2019/202 and 2020/2021 Wintering Bird Seasons



Source: Nagle 2019

For wintering season 2021/2022 survey data related to the N25 Rosslare Europort Access Road Project was collected from Rosslare Harbour Section 1 and Section 2. Survey data related to the N25 Rosslare Europort Access Road Project for this wintering season was collected from Rosslare Harbour Section 1 and 2 as outlined below in Figure 1.2.

Figure 1.2: Count Sections for Rosslare Bay 2019-2021 Wintering Season



Source: Mott MacDonald 2022

During winter bird coastal surveys mammal species including grey and common seal and cetaceans were recorded if present.

1.6 Consultation

Consultation letters were sent to the Development Applications Unit on the 5th of August 2021. A response was received on the 2nd of September 2021. No concerns related to ecology including European sites were outlined.

2 Project Characteristics

2.1 Project Overview

Wexford County Council (WCC) proposes to develop the N25 Rosslare Europort Access Road Scheme to provide improved access to Rosslare Europort from the N25 National Primary Road in order to ensure and secure the sustainability, resilience and competitiveness of this key strategic land-sea transport corridor. Mott MacDonald Ireland has been appointed by Wexford County Council to prepare this Natura Impact Statement (NIS) to accompany the planning application for the scheme.

The N25 along with the connecting N11 are vital strategic transport corridors providing national and regional connectivity with Rosslare Europort, a critical gateway with continental Europe and the UK. Rosslare Europort is Ireland's second largest port for unitised freight and passenger numbers and provides the shortest sea crossing between Ireland & mainland Europe for passenger and Roll On-Roll Off (Ro-Ro) freight traffic. The impacts of Brexit have significantly intensified Rosslare Europort's strategic importance as a gateway for Irish trade and tourism. The N25 Rosslare Europort Access Road project aims to support the future resilience of this critical international land-sea corridor by delivering a safe, sustainable, high-quality and cost effective direct transport connection with Rosslare Europort.

The proposed N25 Rosslare Europort Access Road (REAR), hereafter referred to as the proposed road development/scheme, comprises the construction of approximately 1.45km of high quality single carriageway road consisting of a combination of improved existing road and new road corridor to provide a new access route to Rosslare Europort in Co. Wexford, in the townlands of Ballygerry and Ballygillane Little. The proposed scheme includes a railway crossing, two access underpasses, pedestrian/cycle facilities, public lighting, safety measures, environmental mitigation measures and associated local road junctions and property accesses, as well as localised services diversions.

The scheme utilises and repurposes the existing L3068 Ballygerry Link Road and begins at its junction with the existing N25 national road at Ballygillane. A separate Wexford County Council scheme titled 'N25 Ballygillane Roundabout' proposes a new roundabout at this junction to improve its operational and safety performance. This project received planning permission in January 2020 under Part 8 of the Planning and Development Regulations 2001, as amended, and Part XI of the Planning and Development Act 2000. Wexford County Council intends to construct the N25 Ballygillane Roundabout scheme in 2022.

The proposed road scheme will improve the existing L3068 Ballygerry Link Road to the standards required for a national primary road and to meet the forecast future demand for port traffic. A new section of road then extends from the western end of the existing L3068 Ballygerry Link Road at its junction with the existing L7021 Churchtown/Station Road. The new section of road then turns to the north, crossing over the existing Dublin to Rosslare Harbour rail line before continuing east to connect into Rosslare Europort, via a new roundabout proposed as part of the Masterplan Phase 1 development of Rosslare Europort. Phase 1 of the Masterplan for Rosslare Europort received planning approval in August 2020 (application reference: 20200725) and will commence construction in 2022. The Rosslare Europort Infrastructure Masterplan Phase 1 includes proposals for the development of a new internal road layout that will improve the flow of traffic through the port thus allowing the port to implement the operational capacity required for the current and forecast future increases in freight and passenger traffic using the port. The layout of the masterplan infrastructure also enables the development of new customs terminal facilities at the port. The Office of Public Works (OPW) received planning permission for the terminal development in August 2021 (planning reference number 20211322) and intend to commence construction in 2022. The proposed road development has been designed in close consultation with Rosslare Europort and OPW in order to ensure the full integration of the separate but interconnected developments.

The proposed road development was also developed in consideration of proposals for the future development of a greenway connecting the villages of Rosslare Harbour and Rosslare Strand with a possible

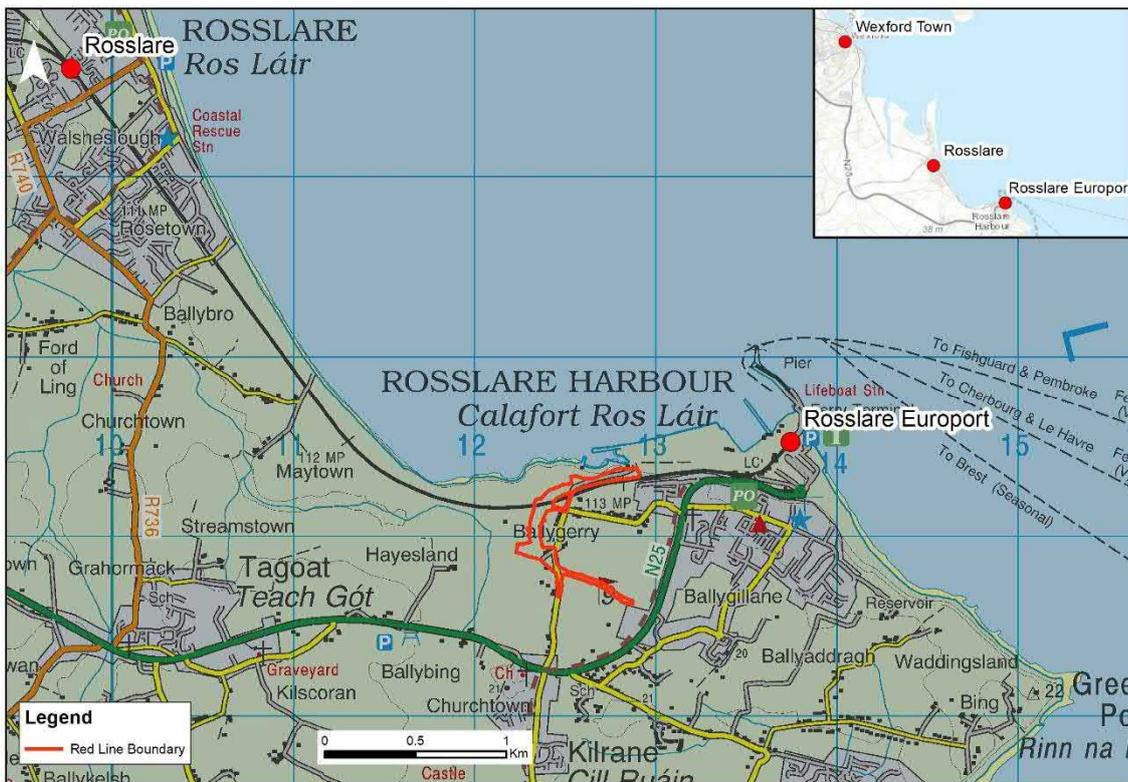
onwards connections with Wexford town to the north and New Ross/Waterford city to the west. A preferred route corridor for the Rosslare Harbour to Rosslare Strand greenway has been identified and it is anticipated that a planning submission will be made in 2022. The proposed scheme includes high quality segregated pedestrian & cycle facilities that will also fully integrate with the proposed greenway project.

The total area within the footprint of the development boundary is approximately 8.07ha.

2.1.1 Site Location

The proposed road development is located in the townlands of Ballygerry and Ballygillane Little in County Wexford as shown in Figure 2.1.

Figure 2.1: Location of Proposed Road Development



Source: Mott MacDonald

2.2 Description of the Development

The proposed road development comprises of the following main elements and is shown in Figure 2.2 below:

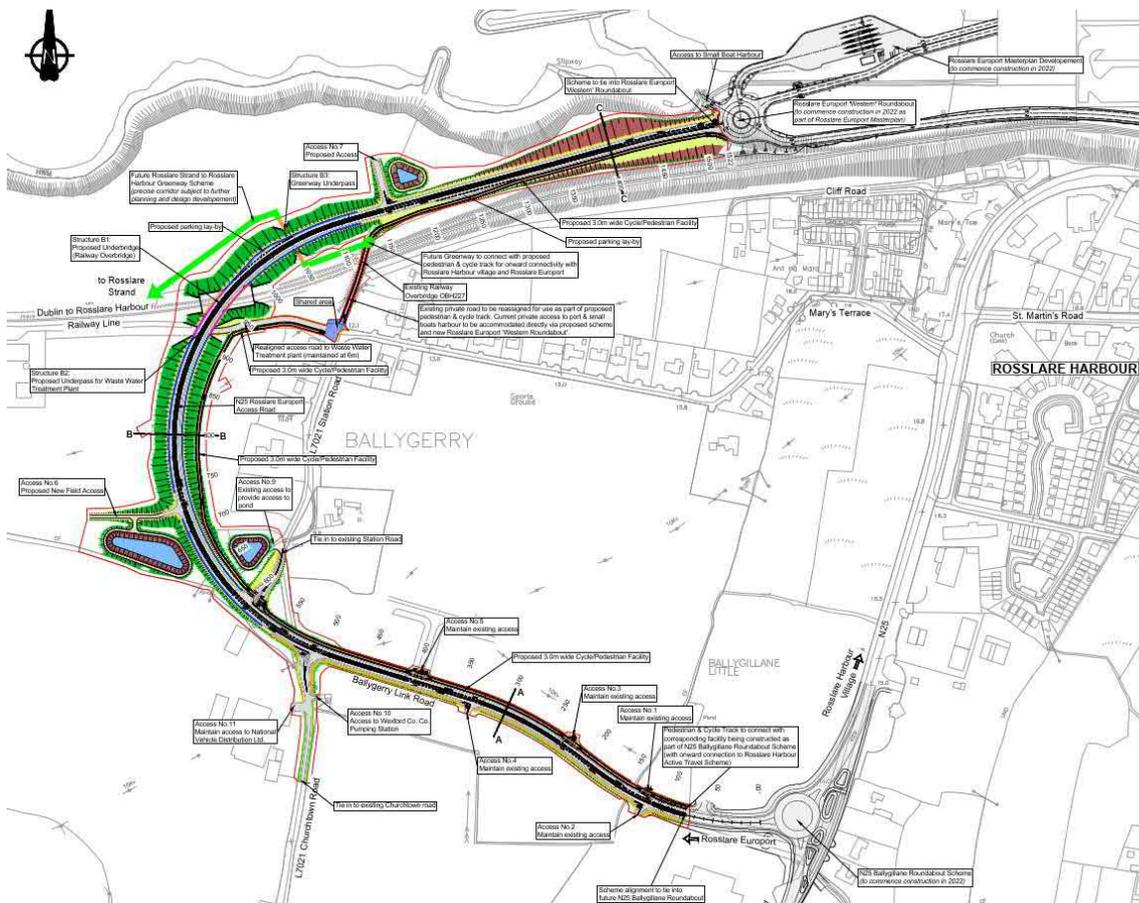
The proposed road development comprises of the following main elements:

1. Upgrading of 450m of the existing Ballygerry Link Road and provision of 1km of new single road carriageway with associated lay-bys to provide a new access route to Rosslare Europort. All existing private accesses will be maintained, and local road tie-ins upgraded along the 1.45km route of the proposed development;
2. Construction of a 3m wide, shared, two-way cycle/pedestrian route between the proposed N25 Ballygillane Roundabout to the new future Rosslare Europort roundabout;
3. New railway bridge;

4. 2No. underpasses providing access to the existing Irish Water Wastewater Treatment Plant (located in Ballygerry townland) and to a potential future Rosslare Strand to Rosslare Harbour Greenway, respectively;
5. New staggered road junction with the L7021 Churchtown/Station Road;
6. Minor road realignment of the existing L7021 Churchtown/Station Road;
7. Vehicle restraint systems and fencing at the existing railway bridge (OBH227);
8. Drainage systems and flood mitigation measures, including attenuation ponds and storage tank;
9. Enabling works including the demolition of a single residential dwelling (Wayside House, Churchtown/Station Road); and
10. Provision of traffic calming islands measure at certain locations along the hatch median.
11. Provision of all associated site development and infrastructure works (including fencing, drainage, utilities, road markings, signage, landscaping and public lighting).

The total area within the footprint of the development boundary is approximately 8.07ha. Specific details of the design and layout of all aspects of the proposed road development are provided in the Design Report which accompanies the planning application.

Figure 2.2: Proposed N25 Rosslare Europort Access Road



Source: Extract from Mott MacDonald drawing 229100548-MMD-0100-RE-DR-C-0101

2.3 Construction Phase Development

This section of the report describes the construction activities associated with the proposed road. It considers how the proposed road development will be constructed, including construction fencing, site clearance, any necessary investigations, import and disposal of materials, drainage and general construction activities for

road infrastructure. The design of the proposed road development has been developed to a stage where the potential environmental impacts can be identified, and a fully informed environmental evaluation can be carried out.

2.3.1 Construction Programme and Duration

Subject to planning approval it is anticipated that construction of the proposed road development will commence in 2024 and would be operational by the end of 2025 following an 18 to 24 month construction period. Construction will be completed in a single phase.

2.3.2 Construction Mobilisation

The Contractor will commence the construction phase by mobilising the construction team on site. This will involve setting up site compounds (locations indicated in Figure 2.3 below) and offices in accordance with the relevant planning conditions to facilitate operational logistics. Site offices will include office and meeting rooms, canteen, welfare & health facilities, toilets, drying rooms, printer room etc. The office compound will also include temporary car parking facilities and a secure compound for the storage of construction plant and materials.

Figure 2.3: Construction Compound Locations



Source: Mott MacDonald

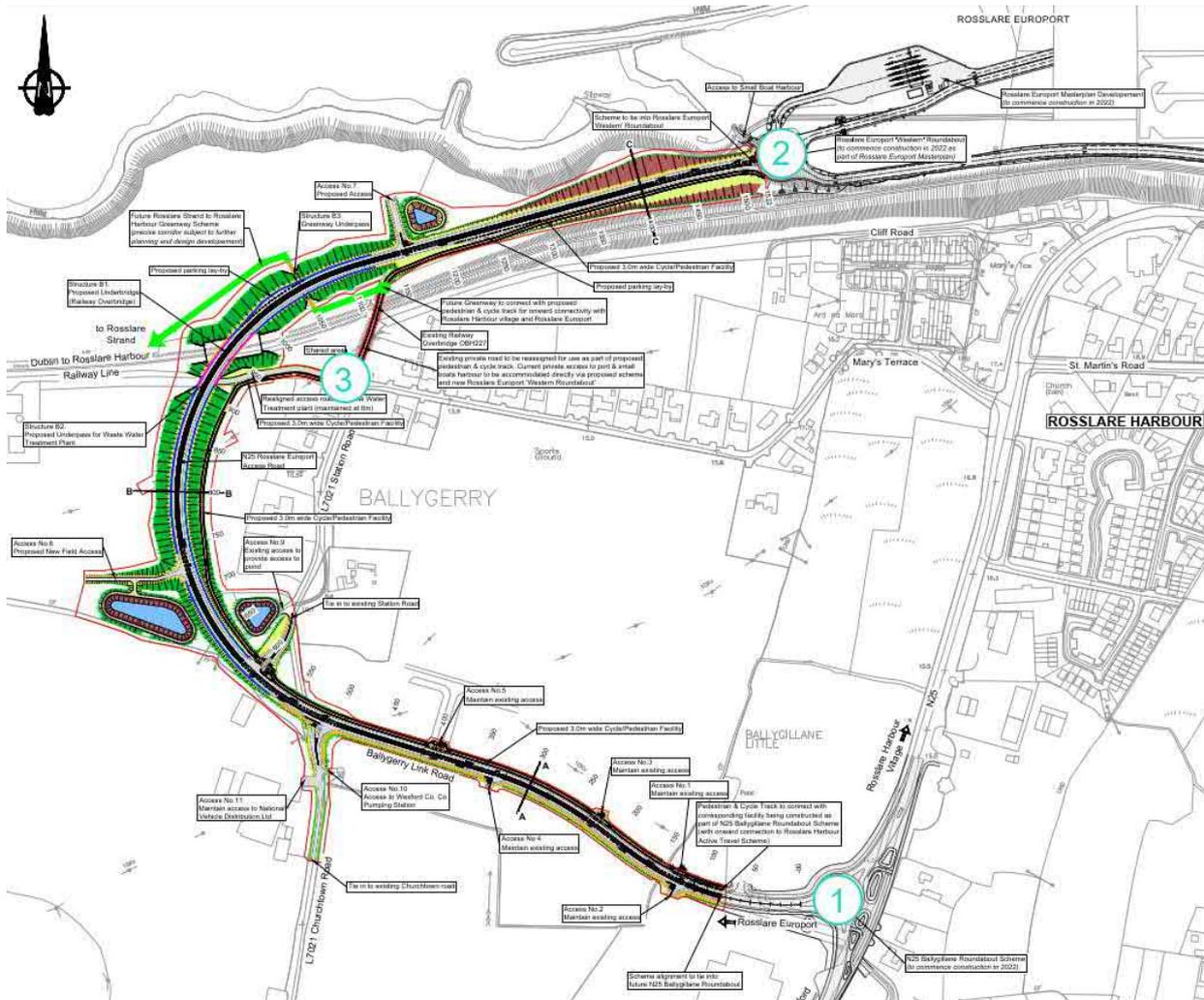
2.3.3 Construction Access

The construction site is severed by the Dublin to Rosslare Harbour railway line at approx. Ch.950. Access across the railway line will not be available for construction purposes until Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C) is completed, after which construction activities such as pavements, safety barriers, traffic signs, road markings, public lighting and landscaping can be completed as a single construction site. Prior to the completion of Structure B1 Ballygerry Underbridge (Railway

Overbridge OBH226C), access across the railway corridor will only be available for site road vehicles via the existing rail underbridge (OBH 227), but due to weight restrictions no construction plant will use this bridge to access the site.

Three proposed access points for the site are itemised as 1, 2 & 3 on Figure 2.4 .

Figure 2.4: Site Access Points



Source: Mott MacDonald

Primary access to the southern part of the site will be via the N25 Ballygillane Roundabout, tagged as site access '1' on Figure 2.4. This access will service the main site offices and compound which is proposed on the L3068 Ballygerry Link Road (Compound Location 1).

Iarnród Éireann and Rosslare Europort have confirmed that access to the northern part of the site for construction plant will be facilitated via Rosslare Europort and the 'western' roundabout, tagged as site access '2' on Figure 2.4. Prior to the completion of Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C), construction vehicles and plant will access the site via Rosslare Harbour village, Delap's Hill and Rosslare Europort. Road licensed trucks etc. will travel on the roads while non road licensed excavators etc. will be transported to and from site on trailers. A site compound with parking areas will be established on the northern part of the site to minimise the required frequency of access for construction plant via Rosslare

Harbour village and Rosslare Europort. Iarnród Éireann and Rosslare Europort have also confirmed that this access route will be made available during construction for access to the Small Boats Harbour as the current private access route via the existing rail bridge OBH227 will be unavailable for the duration of construction. Upon completion of construction and opening of the proposed road development, permanent access to the Small Boats Harbour will be via the new road and the 'western' roundabout where a dedicated roundabout arm is provided for access.

A further site access '3' is proposed via L7021 Churchtown/Station Road to service specific construction operations for Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C) and 'Compound Location 2'. It is anticipated that this access will be used by site vehicles, supply trucks, cranes etc. Construction machinery and plant associated with earthworks will be prohibited from using this access and will use temporary haul roads within the site corridor instead in order to minimise disruption to local residents and to minimise damage to the local road network.

2.3.4 Construction Phasing

In general, construction to the south of the rail corridor is likely to progress from the N25 Ballygillane Roundabout towards Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C). Construction to the north of the rail corridor is likely to progress from the 'western' roundabout at Rosslare Europort towards Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C). The construction of Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C) will progress on either side of the railway corridor as separate operations until the bridge deck is ready to be constructed over the rail corridor.

2.3.5 Enabling Works

Enabling works are those generally undertaken to existing facilities in order to provide space or access for the permanent works and or construction. By their nature, these works must be completed before the main works can start. The timing of enabling works depends on the programmed start of the phase of main works that they are designed to enable. Some may start well in advance of the main construction activities. The potential environmental impacts associated with the enabling works have been considered in this report.

Any required archaeological investigation and resolution works will be undertaken prior to the main construction works commencing on site. Other possible pre-construction works will be minor in nature and may include targeted diversion of services, including overhead electricity lines, telecommunications, and water services. Advance tree and hedgerow clearance and treatment of non-native invasive species may also be undertaken in advance in order to minimise potential impacts, subject to the seasonal timing of the construction works. These activities have been considered at this stage to ensure all necessary land and access is included within the proposed development boundary.

2.3.6 Site Clearance Works

All areas of the site required for the construction of the proposed road development will need to be cleared down to ground level. Archaeological geophysical survey will be undertaken in advance of construction. Pre-development archaeological test excavation will be carried out prior to commencement of construction. The presence and nature of items of heritage significance will be recorded and preserved where possible.

2.3.7 Fencing

At the beginning of the construction phase the boundary of the lands acquired or licenced for the proposed development will be fenced and access across it restricted. Temporary construction fencing or hoarding may be required during construction prior to the installation of permanent fencing to secure the site and prevent unauthorised access.

2.3.8 Road Construction

The main road construction works will commence with the excavation and placement of material for the construction of cuttings and embankments as well as the hauling of materials and importation/exportation of

materials to complete the road formation. Materials for the road construction will include materials that need to be brought to site including gravels and bituminous pavement and surfacing materials.

In addition to the earthworks construction the main activities will involve the following:

- Road pavement works — sub-base and base construction, bituminous pavement, surfacing.
- Drainage — the installation of drainage features
- Cycle/pedestrian facility pavement works
- Structures — the construction of bridges including their foundations including piling works, abutments, earth retaining walls and the installation of prestressed concrete beams with a reinforced concrete infill slab and other reinforced concrete works
- The diversion and construction of utilities and services
- Ancillary roadworks including the installation of safety barriers, kerbs, signage and road marking
- Installation of Public lighting columns
- Accommodation works for landowners such as access roads, entrances, fences, gates, walls, ducting and reconnection of severed services
- Temporary traffic management

2.3.8.1 Earthworks

Topsoil and subsoil will be excavated and replaced with road construction. Stripped topsoil and subsoil will be stored within the site boundary and reused within the construction of the proposed road development where feasible subject to testing to ensure it is suitable for its proposed end use. Materials will be transported to and from the site using the existing road network. Excavation and filling will be carried out using mechanical plant. Road embankments will be constructed using excavated material or, where necessary, imported fill material and will generally be compacted using static and vibrating rollers or similar equipment.

The embankments will be constructed for the majority from self-supporting fill material. Where during the detailed design, the requirement for soil retention is identified it shall be provided by using steepened earthworks which shall have a vegetated finish or reinforced soil or reinforced concrete retaining walls with a specified range of acceptable finishes to the exposed faces. The requirements for the aesthetic appearance of the exposed faces will be specified in the contract documents.

2.3.8.2 Pavement Works

Bituminous paving will be undertaken throughout the extent of the proposed road development. The thickness of the road pavement will be determined at detailed design stage but on this type of road, a new asphalt layer thickness of 200mm could be anticipated. All asphalt material will be transported to site in trucks specifically designed for the transportation of materials at high temperatures. The material shall be transferred directly to paving machines, which spreads the asphalt onto the road in layers. The spread material will then be compacted using rollers.

2.3.9 Structure B1 Underbridge (Railway Overbridge OBH226C)

A licencing arrangement will be agreed with CIE/Iarnród Éireann for works associated with the construction of the railway bridge and CIE/Iarnród Éireann have confirmed their intent to enter into such a license agreement. A safe working area either side of the rail track will be set up and site clearance completed. Installation of reinforced earth abutments and wingwalls will be erected either side of the rail track without interference with rail services. The backfilling behind the reinforced abutments and wingwalls will be completed, followed by re-profiling of the existing ground level either side of the rail track. This will involve the setting up of a Continuous Flight Auger (CFA) pile in a hard standing area to the north side of the railway track, and a row of CFA piles will be installed to the north of the track. The same procedure will be completed to the south side of the track. The reinforcement and formwork for the abutments will be erected when the piles are complete. The concrete abutments can be cast insitu and the TY10 precast beams will be installed

over the railway line to span across the bridge abutments. The formwork and reinforcement for the deck will be installed and fixed and the cast *In situ* concrete deck can be poured. The parapets for the deck will be erected and the deck will be waterproofed. The vehicle restraint barriers will be installed and the surface carriageway on the bridge deck will be completed. Some of the construction works for the bridge deck may require temporary possession(s) of the railway track subject to consultation and agreement with Iarnród Éireann. There are currently two southbound train services and three northbound train services between normal construction working hours of 0700 and 1900 on Monday to Saturday. Works will be programmed to minimise disruption to rail services in consultation with Iarnród Éireann. Construction plans for the railway bridge will also be subject to the approval of Iarnród Éireann and the Commission for Railway Regulation.

2.3.10 Road Closures and Diversions

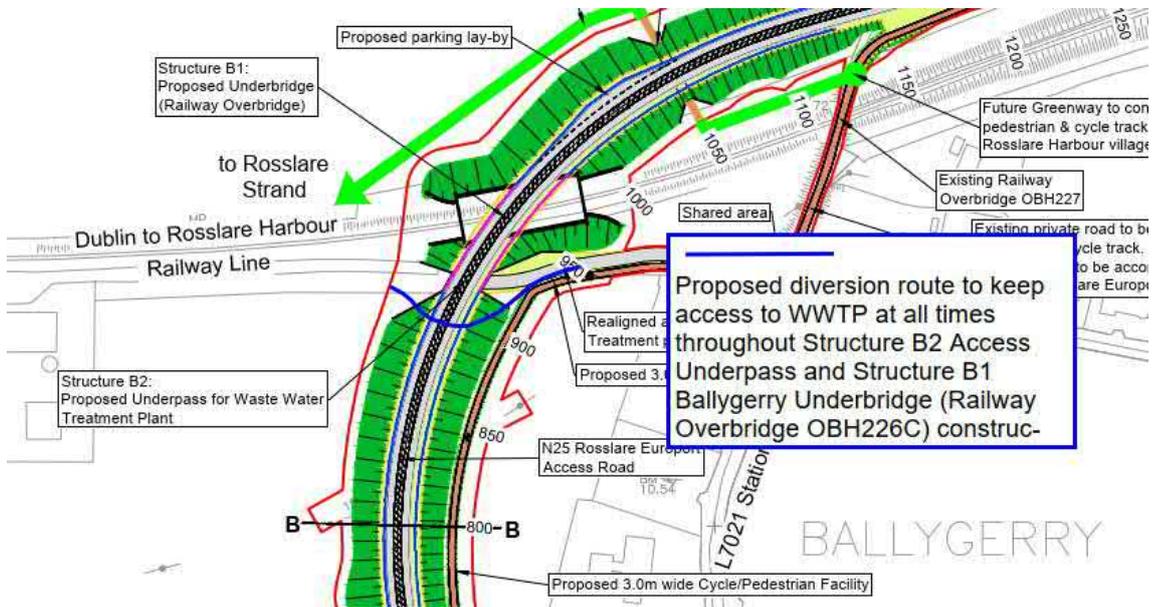
The proposed road development will be constructed in a manner which will minimise, as much as possible, any disturbance to the local residents and road users. Requirements for temporary traffic management during the construction of the proposed road development will be explicitly written into the Employer’s Requirements for the construction contract documents and tenderers will have to demonstrate compliance with these requirements during the tender process.

The below Table 2.1 details the locations where temporary road diversions and temporary traffic management measures are anticipated to be required during construction. Construction traffic management is outlined on Figure 2.5.

Table 2.1: Temporary Road Diversions

Road	Construction Traffic Management Diversions
Ballygerry Link Road	The Ballygerry link road is wide enough to facilitate a stop and go system to maintain access to the businesses along the road while continuing construction.
L7021 Churchtown Road/Station Road	The southern tie-in to the L7021 Churchtown Road/Station Road is not wide enough for a stop and go system. The road will need to be closed but access to the National Vehicle Distribution Centre (NVD) and the WWTP plant will be maintained. Access to the NVD will be through the Ballygerry link road which can facilitate a stop and go system.
Access to NVD/Small WWTP Plant	Where the L7021 Churchtown Road/Station Road joins the Ballygerry Link Road the road is wide enough here for a stop-go system to keep access available to the NVD.
Access to NVD storage site within CIE/RE Lands	NVD will have to divert traffic back through the Ballygerry link road Access for regular local traffic that currently uses this access road (i.e., access to small boat harbour & NVD storage site) to be facilitated during construction by diverting them via Delap’s Hill and the Masterplan link road to the new western roundabout (future Port roundabout).
WWTP Access Road	Access must be maintained at all times to the WWTP on the Station Road entrance which is just before the existing stone arch railway bridge towards the small harbour and NVD storage site in CIE/RE Lands. A temporary diversion road is proposed along the WWTP access road. This temporary road will allow access to the WWTP and will facilitate construction of Structure B1 Underbridge (Railway Overbridge).

Figure 2.5: Construction Traffic Management Temporary Diversion Routes



Source: Extract from Mott MacDonald drawing 229100548-MMD-0100-RE-DR-C-0101

2.4 Site Compounds

Four sites have been identified as potential site compounds to facilitate the construction of the proposed road development. Figure 2.3 shows the proposed locations for construction compounds during the construction of the proposed development.

2.4.1 Compound Location 1

Compound 1 (see Figure 2.6) is located on unused ground fronting onto the L3068 Ballygerry Link Road zoned for industrial use in the draft Wexford County Development Plan 2021-2027 (Map 3). This site has very good access directly onto the L3068 Ballygerry Link Road and onward to the N25 national primary road. The site is also located relatively remote from residential properties. It is proposed that this site would host the main site offices and compound. The private landowner has been consulted on the potential use of this area for the purposes of a temporary compound and has consented in principle to the proposal.

Figure 2.6: Compound Location 1



Source: Extract from Mott MacDonald drawing 229100548-MMD-0100-RE-DR-C-0101

2.4.2 Compound Location 2

Compound 2 (see Figure 2.7) is located on unused Iarnród Éireann lands with direct access to the L7021 Churchtown Road. It is proposed that this site would serve as a small compound specifically for the construction of Structure B1 Ballygerry Underbridge (Railway Overbridge OBH226C). Due to its close proximity to compound 1 it is proposed that this compound would only include toilet facilities as well as a materials storage yard. Iarnród Éireann has confirmed that it has no objection in principle to the temporary use of these lands.

Figure 2.7: Compound Location 2

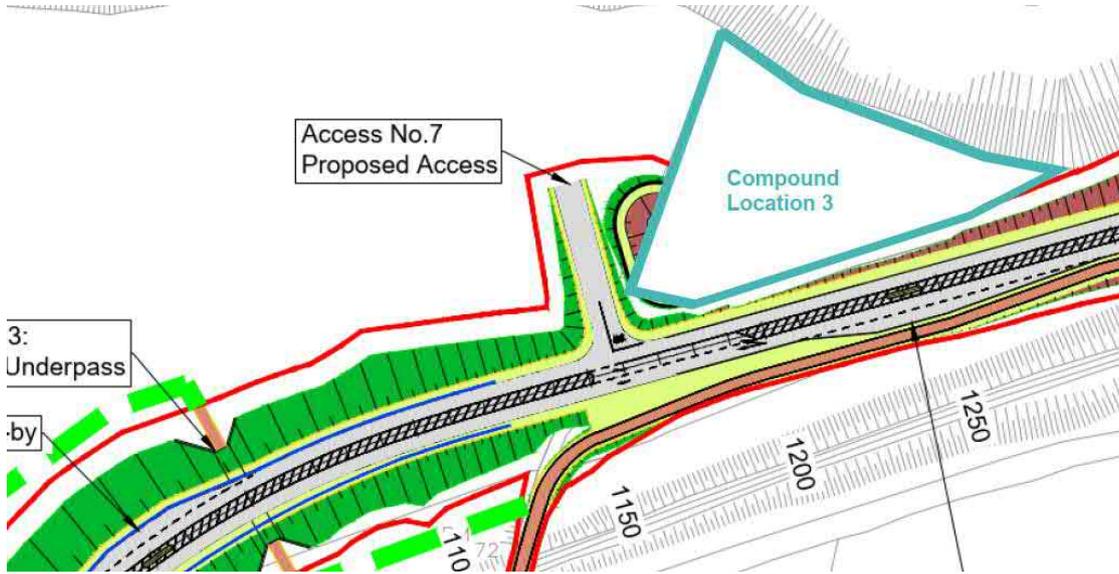


Source: Extract from Mott MacDonald drawing 229100548-MMD-0100-RE-DR-C-0101

2.4.3 Compound Location 3

Compound 3 (see Figure 2.8) is located on unused Iarnród Éireann lands to the north of the Dublin to Rosslare Harbour railway line. Access to the compound would be established via a temporary site road from the 'western' roundabout at Rosslare Europort. Iarnród Éireann and Rosslare Europort have confirmed that access to the northern part of the site for construction plant will be facilitated via Rosslare Europort and the 'western' roundabout. This proposed site compound would provide overnight parking areas for construction plant and site vehicles to minimise the frequency of access required via Rosslare Europort and will also include toilet facilities as well as a materials storage yard. Part of the compound site is located within the footprint of a proposed attenuation storage pond, this section of the compound will be utilised during the main earthworks construction before the attenuation pond is constructed and when heavy excavation plant will be required on this side of the site. Iarnród Éireann has confirmed that it has no objection in principle to the temporary use of these lands.

Figure 2.8: Compound Location 3



Source: Extract from Mott MacDonald drawing 229100548-MMD-0100-RE-DR-C-0101

2.4.4 Compound Location 4

Compound 4 (see Figure 2.5) is located approx. 4km from the site on the N25 to the west of Tagoat village at an existing Wexford County Council compound and storage yard. It is proposed that this yard could be utilised by the contractor if required for the temporary overflow storage of smaller items and materials such as roadworks signs etc. The yard could also be utilised if for any reason access to Rosslare Harbour is temporarily blocked or delayed due to a road incident, port traffic congestion etc. Wexford County Council has confirmed that it has no objection to the temporary use of these lands.

2.5 Construction Traffic

The maximum predicted traffic movements in total are envisaged to be 70,980 movements, with 251 movements predicted per day during the peak construction period, as shown in Table 2.2.

Table 2.2: Total Construction Traffic Movements per day during Peak Construction

Description	No. of Traffic Movements (Total)	No of Traffic Movements (Per day during Peak Construction Period)
Earthworks - Fill	9,165 deliveries (18,330 movements)	27 (54 movements)
Earthworks - Cut	3,409 deliveries (6,818 movements)	11 (22 movements)
Pavement	1,667 deliveries (3,334 movements)	5 (10 movements)
Concrete (for structures)	168 deliveries (336 movements)	5 (10 movements)
Incidental Materials	3,400	5 (10 movements)
Precast Concrete Beams	122	5 (10 movements)
Personnel (During Site preparation)	3,840	48
Personnel (During Construction)	34,800	87
Total	70,980	251

A maximum daily workforce of approximately 45 people is expected during the peak period for construction works on site. However, typical daily workforce requirements will be less than this.

A vehicle occupancy rate of 1.25 is assumed and the worst-case scenario this would result in maximum average daily personnel vehicle movements of 72 during the construction period (approximately 36 vehicles per day). This would mean a requirement for up to 36 temporary car parking spaces. Table 2.3 expands on the personnel and vehicle movements across envisaged for the construction phases.

Table 2.3: Construction Personnel and Personnel Vehicle Movements

Description	Duration	Average Personnel on site per day	Average Personnel Vehicle Movements per Day	Total per Construction Phase
Site Preparation	4 Months	25	48	3,840
Construction	20 Months	45	87	34,800
Total	-	-	-	38,640

Note 1: It was assumed 15 additional movements for lunch during construction phase and 8 additional movements during site preparation.

Note 2: It was assumed 20 working days per month.

3 Existing Environment

3.1 Habitats

A description of the habitats located within the proposed development site is presented hereunder. Habitats were described in accordance with Fossitt (2000)². An assessment of the habitats was undertaken in accordance with the NRA Guidelines (2009)³ and CIEEM Guidelines (2018)⁴.

A habitat map of the Proposed Development and surrounding areas is provided in Appendix A.

Building and Artificial Surfaces (BL3)

Buildings and artificial surfaces within the study area are comprised of the existing roads, pavements and buildings (Figure 3.1).

Figure 3.1: Example of Existing Hardstanding Surfaces Within the Study Area



Source: Mott MacDonald 2021

² Fossitt (2000) A Guide to Habitats in Ireland, The Heritage Council

³ NRA (2009), Guidelines for Assessment of Ecological Impacts of National Roads Scheme.

⁴ CIEEM (2018, updated 2019) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater Coastal, and Marine Version 1.1.

Recolonising Bare Ground (ED3)

Recolonising bare ground was recorded within compound 2 (Figure 3.2). Species recorded in this area included dandelion (*Taraxacum spp.*), and willow herbs (*Epilobium spp.*).

Figure 3.2: Recolonising Bare Ground



Source: Mott MacDonald 2022

Tilled Land (BC3)

A large proportion of the habitat within the study area was comprised of tilled lands (Figure 3.3). These fields had been recently ploughed and seeded with Autumn cereal crops.

While there was little in terms of biodiversity within the fields themselves, the fields were in some cases used locally by wintering birds for foraging. Further detail is provided in Section 3.1.5 in relation to usage by wintering birds.

Figure 3.3: Recently Tilled Land Within the Study Area



Source: Mott MacDonald 2021

Wet Grassland (GS4)

Wet grassland was largely present bordering the southern extent of the scheme (Figure 3.4). Species recorded in the wet grassland included Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*), purple loosestrife (*Lythrum salicaria*), soft rush (*Juncus effuses*), hard rush (*Juncus inflexus*), great horsetail (*Equisetum telmateia*), meadow buttercup (*Ranunculus acris*), marsh woundwort (*Stachys palustris*), false fox sedge (*Carex otrubae*), glaucous sedge (*Carex flacca*), curled dock (*Rumex crispus*), common fleabane (*Pulicaria dysenterica*), and montbretia (*Montbretia crocosmia*). In places the grassland was becoming colonised with Gorse scrub.

Figure 3.4: Wet Grassland within the Study Area



Source: Mott MacDonald 2021

Dry Meadows and Grassy Verges (GS2)

Areas of dry meadow and grassy verges (GS2) were recorded along an existing laneway on the northern end of the Proposed Development (Figure 3.5). Species recorded in the habitat included great horsetail (*Equisetum telmateia*), scattered common reed grass (*Phragmites australis*), meadow vetchling (*Lathyrus pratensis*), willowherb (*Epilobium hirsutum*). Other species recorded within the habitat included knapweed (*Centaurea nigra*), yarrow (*Achillea millefolium*), birds foot trefoil (*Lotus corniculatus*), gorse (*Ulex europaeus*), montbretia (*Montbretia crocosmia*), pampas grass (*Cortaderia selloana*), fuschia (*Fuchsia magellanica*), dandelion (*Taraxacum vulgaria*), dock (*Rumex obtusifolius*), clover (*Trifolium* spp.), creeping cinquefoil (*Potentilla reptans*). Soft rush (*Juncus effusus*) was recorded in wetter areas within the habitat.

Figure 3.5: Dry Meadows and Grassy Verge Habitat



Source: Mott MacDonald 2021

Scrub (WS1)

Several areas of scrub (WS1) vegetation were recorded, including a thicket of willow (*Salix spp.*) (Figure 3.6) towards the southwest extent of the works footprint and an area of scrub beginning to transition to immature woodland (WS2), running to the rear of a private dwelling just north of this. Another area of abandoned agricultural farmland (likely formerly unimproved grassland) turned to scrub, to the north of the subject site was recorded, just south of the railway lines.

Species recorded within the scrub habitats included gorse (*Ulex europeaus*), willow (*Salix spp.*), coltsfoot (*Tussilago farfara*), perennial rye grass (*Lolium perenne*), nettles (*Urtica dioica*), brambles (*Rumex obtusifolius*), ribwort plantain (*Plantago lanceolata*), alexanders (*Smyrniolum olusatrum*) and blackthorn (*Prunus spinosa*). Where there were open areas within the scrub it was comprised of a rough grassland colonised with common reed (*Phragmites australis*).

A small stand of three-cornered leek (*Allium triquetrum*) was recorded adjacent to one of the stands of scrub. This species is listed as an alien invasive on Schedule 3 of SI No. 477 2011

Figure 3.6: Scrub Habitat within the Study Area



Source: Mott MacDonald 2021

Hedgerows (WL1)

Hedgerows were recorded bordering agricultural grassland, and residential areas (Figure 3.7). The hedgerows encountered were typically highly managed in nature. Species recorded included blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), ash (*Fraxinus excelsior*), hogweed (*Heracleum sphondylium*), brambles (*Rubus fruticosus*), nettles (*Urtica diocea*), cock's foot grass (*Dactylis glomerata*), gorse (*Ulex europeus*), and field horsetail (*Equisetum arvense*).

Figure 3.7: Hedgerows Within the Study Area



Source: Mott MacDonald 2021

Treelines (WL2)

Treelines recorded within the study area were typically non-native Leyland Cypress (*Cupressus x leylandii*) and highly managed (Figure 3.8).

Figure 3.8: Non-native Treelines



Source: Mott MacDonald 2021

Agricultural Grassland (GA1)

Improved agricultural grassland was recorded in several locations within the study area (Figure 3.9). Species recorded within the agricultural grassland included perennial rye grass (*Lolium perenne*), broad dock (*Rumex obtusifolius*), common nettle, common mouse ear (*Cerastium fontanum*), red fescue (*Festuca rubra*), and white clover (*Trifolium repens*).

Figure 3.9: Agricultural Grassland within the Study Area



Source: Mott MacDonald 2021

Drainage Ditch (FW4)

Drainage ditches were recorded along field boundaries within the study area (Figure 3.10). These were typically highly modified features, with little flow and overgrown with vegetation.

Figure 3.10: Drainage Ditch



Source: Mott MacDonald 2021

Sedimentary Sea Cliffs (CS3)

Sedimentary sea cliffs were recorded bordering the north of the scheme and intersecting with the alignment in an area of cut at the interface with the Europort facility (Figure 3.11 and Figure 3.12). The height of the sea cliffs varies from approximately 16m close to the stubble field, and approximately 6m where the alignment intersects.

The habitat was largely dominated by common reed grass (*Phragmites australis*) and brambles (*Rubus fruticosus*). Other species recorded within this habitat included great horsetail, and thistle along with other low diversity grass species.

Figure 3.11: Sea Cliffs Recorded to the North of the Scheme



Source: Mott MacDonald 2021

Figure 3.12: Small Harbour to the North of the Scheme



Source: Mott MacDonald 2021

3.2 Mammals

No signs of any QI mammal species were noted during the field walkover. The following observations of QI mammal species were recorded incidentally during wintering bird surveys:

- A single otter was recorded just outside of the small boat harbour
- A single grey seal was recorded in coastal waters
- A single harbour seal was recorded resting near sea cliffs

No other qualifying interest (QI) mammal species of local European sites were recorded on the site or environs.

3.3 Breeding Birds

No Special Conservation Interest (SCI) breeding bird species of local European sites were recorded on the site or environs.

3.4 Invasive Species

Two stands of three-cornered leek were recorded within the footprint of the Proposed Development one along the existing road at the south of the site, and one within a construction compound. Historic records of Japanese knotweed are present at the entrance to the Europort.

The location of the recorded invasive species stands is provided in Appendix A.

3.5 Wintering Birds

As outlined in Section 1.5.2, wintering bird surveys were carried out in the area surrounding the proposed N25 Rosslare Europort Access Road during wintering season 2019/2020 and wintering season 2020/2021. A summary of the results, as it pertains to Special Conservation Interest (SCI) bird species recorded within the zone of influence of the works (Section 1), is presented below in Table 3-1. Please refer to Section numbers in Figure 1.1.

Seventeen SCI species associated with nearby European sites were recorded during the wintering bird surveys. The peak counts recorded in section 1 did not exceed the figures for national significance for any of the species.

The wintering bird report 2019/2020 noted that the area of available shoreline is quite limited at Rosslare Harbour even at low tide. The report goes on to note that sediments on the shoreline are predominantly sand and sandflats. These generally contain lower levels of organic matter than mudflats and therefore are usually less attractive to most wader species (Crowe 2005).

During the wintering bird survey for 2019/2020, lapwing were the most numerous species recorded in section 1 (peak count 151 during the season). The birds were noted frequenting the rock breakwater at the fishing harbour at both low and high tide. The report also noted curlew (peak count in 2019/2020 season of 77) using the shoreline, nearby fields and in particular the arable field into which the proposed alignment protrudes. Black-tailed godwit (Peak count in 2019/2020 season of 53) were also recorded using this arable field.

The wintering bird survey report for 2020/2021 noted again that lapwing (peak count 70) were recorded in the highest numbers. The report stated that numbers of waterbirds were recorded in this section were generally low, largely due to extremely limited foraging habitat. The report outlines that the stubble field was used by low numbers of waders and gulls, with the only SCI species noted there being oystercatchers (peak count in 2020/2021 season of 4).

Wintering bird surveys carried out in wintering season 2021/2022 again noted lapwing were the most numerous species, with a peak count of 150 recorded roosting on the harbour pier. A notable count of 35 brent geese were recorded during the 2021/2022 wintering season. These birds were not foraging or roosting within the ZOI of the proposed development and were instead recorded flying southeast over the survey area.

Usage of the arable field by SCI species was again relatively limited in the 2021/2022 wintering season. Wintering SCI species were recorded within the arable field on three survey days. On one day five black tailed godwits were recorded in the field, and on two separate days curlew were recorded within the field with a peak count of 75. All other records during the 2021/2022 field season related to birds recorded flying, within coastal waters, along the shore or in the small boat harbour.

Table 3-1: Wintering Bird Survey Results from Section 1

Species	SCI of Lady's Island SPA	SCI of Wexford Harbour and Slobs SPA	SCI of The Raven SPA	SCI of Tacumshin Lake SPA	Peak Count 2019/2020	Peak Count 2020/2021	Peak Count 2021/2022	Figure of National Significance	Peak Count as % of Figure of National Significance
Black-headed gull (<i>Chroicocephalus ridibundus</i>)	✓	✓	-	-	49	25	30	1000	5%
Black-tailed godwit (<i>Limosa limosa</i>)	-	✓	-	✓	53 ⁵	Not recorded	5 ⁶	200	27%
Brent goose (<i>Branta bernicla hrota</i>)	-	✓	-	-	9	Not recorded	35	350	10%
Common tern (<i>Sterna hirundo</i>)	✓	-	-	-	4	Not recorded	Not recorded	Not available	Not available
Common scoter (<i>Melanitta nigra</i>)	-	-	✓	-	Not Recorded	35	50	110	45%
Cormorant (<i>Phalacrocorax carbo</i>)	-	✓	✓	-	28	8	30	110	27%
Curlew (<i>Numenius arquata</i>)	-	✓	-	-	77 ⁷	12	75 ⁸	350	22%
Great crested grebe (<i>Podiceps cristatus</i>)	-	✓	-	-	2	3	4	30	13%

⁵ Noted as mostly within the stubble field

⁶ Within stubble field

⁷ Report notes that these used the shoreline and fields, especially the stubble field

⁸ Within stubble field. Additional records also on the shore and flying eastwards

Species	SCI of Lady's Island SPA	SCI of Wexford Harbour and Slobs SPA	SCI of The Raven SPA	SCI of Tacumshin Lake SPA	Peak Count 2019/2020	Peak Count 2020/2021	Peak Count 2021/2022	Figure of National Significance	Peak Count as % of Figure of National Significance
Grey heron (<i>Ardea cinerea</i>)	-	✓	-	-	4	Not recorded	3	25	16%
Lesser black-backed gull (<i>Larus fuscus</i>)	-	✓	-	-	1	Not recorded	35	Not available	Not available
Lapwing (<i>Vanellus vanellus</i>)	-	✓	-	✓	151	70 ⁹	150	850	18%
Mallard (<i>Anas platyrhynchos</i>)	-	✓	-	-	Not recorded	Not recorded	1	280	<1%
Oystercatcher (<i>Haematopus ostralegus</i>)	-	✓	-	-	4	4 ¹⁰	7	610	1%
Red-breasted merganser (<i>Mergus serrator</i>)	-	✓	-	-	4	3	6	25	24%
Redshank (<i>Tringa totanus</i>)	-	✓	-	-	Not recorded	5	1	240	2%
Red-throated diver (<i>Gavia stellata</i>)	-	-	✓	-	2	Not recorded	10	20	50%
Sandwich tern (<i>Sterna sandvicensis</i>)	✓	-	-	-	2	Not recorded	6	Not available	Not available

⁹ Survey data notes that 55 of these were within the stubble field, with 15 in the harbour

¹⁰ Survey report notes that the stubble field was used by the species

3.6 Zone of Influence

The works are located entirely outside of any European sites. However, the Zone of Influence of works can impact areas outside of the immediate footprint of works.

CIEEM guidelines states that the “*zone of influence (Zol) is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*” and that the “*zone of influence will vary for different ecological features depending on their sensitivity to an environmental change*”.

The zones of influence associated with these project effects have been derived from relevant published literature and guidance documents. All European sites within the defined zones of influence were identified using Geographic Information System (ArcGIS).

The zone of impact for each is outlined below:

Direct Loss of Habitat

There is potential for a loss of supporting habitat and displacement for SCI bird species associated with the proposed development.

Disturbance and displacement

There is potential for increased operational phase visual disturbance from increased traffic and vehicle presence to coastal SCI bird species with the proposed development.

Surface water run-off

As previously noted, there is potential for impacts to surface water caused by the proposed works. On a precautionary basis, given the potential for remobilisation of sedimentation and other pollutants within the water column, the Zol for surface water runoff is taken on a river catchment basis.

Dust

Breaking out of existing hardstanding has the potential to cause dust. The proposed construction works are likely to result in the temporary generation of dust. The Institute of Air Quality Management ‘*Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance*’ (2014) prescribes potential dust emission risk classes to ecological receptors. The guidance specifies that the need for a detailed assessment arises “*where there is an ‘ecological receptor’ within 50m of the works, or within 50m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance*” and that “*Where the need for a more detailed assessment is screened out, it can be concluded that the level of risk is “negligible”, and any effects will not be significant*”.

The Zol is, therefore, taken as 50m from the works and 500m along existing roadways from the works areas.

Noise

There is potential for a temporary increase in noise during the construction of the proposed works. Wetland birds have been documented to tolerate noise levels at or below 70dBA (Institute of Estuarine & Coastal Studies, University of Hull, 2009). A noise study carried out as part of the application process found that the worst case scenario for noise impacts during the construction phase falls to within 70dBA within 90m of the site boundary. The Zol for noise impacts is therefore taken as 90m.

4 Characteristics of the European Sites

As outlined in the Screening for Appropriate Assessment, the potential for impact to the following European sites has been identified:

- Slaney River Valley SAC (000781)
- Saltee Islands SAC (000707)
- Wexford Harbour and Slobs SPA (004076)
- Lady's Island Lake SPA (004009)
- The Raven SPA (004019)
- Tacumshin Lake SPA (004092)

No viable source pathway receptor links were identified to any other European sites.

The characteristics of these European sites are outlined below.

4.1 Slaney River Valley SAC (000781)

The site synopsis (NPWS, 2015) describes the SAC as follows:

"This site comprises the freshwater stretches of the River Slaney as far as the Wicklow Mountains; a number of tributaries, the larger of which include the Bann, Boro, Glasha, Clody, Derry, Derreen, Douglas and Carrigower Rivers; the estuary at Ferrycarrig; and Wexford Harbour."

Site specific conservation objectives are available for the site (NPWS, 2011). The site is designated for the following habitats and/or species listed on Annex I/II of the EU Habitat's Directive (*=Priority Habitat):

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation [3260]
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- *Alluvial forests* with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Margaritifera margaritifera* (freshwater pearl mussel) [1029]
- *Petromyzon marinus* (sea lamprey) [1095]
- *Lampetra planeri* (brook lamprey) [1096]
- *Lampetra fluviatilis* (river lamprey) [1099]
- *Alosa fallax fallax* (twait shad) [1103]
- *Salmo salar* (salmon) [1106]
- *Lutra lutra* (otter) [1355]
- *Phoca vitulina* (harbour seal) [1365]

4.2 Saltee Islands SAC (000707)

The site synopsis (NPWS, 2013) describes the SAC as follows:

“This site comprises the Saltees Islands and a large area of the surrounding seas. There are two islands, Great Saltee and Little Saltee, and a constellation of islets and rocks. The islands are situated between 4 and 5 km off the south Wexford coast.”

Site specific conservation objectives are available for this site (NPWS, 2011). The site is designated for the following habitats and/or species listed on Annex I/II of the EU Habitat’s Directive (*=Priority Habitat):

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Large shallow inlets and bays [1160]
- Reefs [1170]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
- Submerged or partially submerged sea caves [8330]
- *Halichoerus grypus* (grey seal) [1364]

4.3 Wexford Harbour and Slobs SPA (004076)

The site synopsis (NPWS, 2014) describes the SPA as follows:

“Wexford Harbour is the lowermost part of the estuary of the River Slaney, a major river that drains much of the south-east region. The site is divided between the natural estuarine habitats of Wexford Harbour, the reclaimed polders known as the North and South ‘Slobs’, and the tidal section of the River Slaney. The seaward boundary extends from the Rosslare peninsula in the south to the area just west of The Raven Point in the north. Shallow marine water is a principal habitat, but at low tide extensive areas of intertidal flats are exposed. These vary from rippled sands in exposed areas to sandy-muds in the more sheltered areas, especially at Hopeland and the inner estuary to the west of Wexford bridge.”

Site specific conservation objectives are available for this site (NPWS, 2012). The site is designated for the following Special Conservation Interests (SCIs).

- Little grebe (*Tachybaptus ruficollis*) [A004]
- Great crested grebe (*Podiceps cristatus*) [A005]
- Cormorant (*Phalacrocorax carbo*) [A017]
- Grey heron (*Ardea cinerea*) [A028]
- Bewick's swan (*Cygnus columbianus bewickii*) [A037]
- Whooper swan (*Cygnus cygnus*) [A038]
- Light-bellied brent goose (*Branta bernicla hrota*) [A046]
- Shelduck (*Tadorna tadorna*) [A048]
- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Mallard (*Anas platyrhynchos*) [A053]
- Pintail (*Anas acuta*) [A054]
- Scaup (*Aythya marila*) [A062]
- Goldeneye (*Bucephala clangula*) [A067]
- Red-breasted merganser (*Mergus serrator*) [A069]
- Hen harrier (*Circus cyaneus*) [A082]
- Coot (*Fulica atra*) [A125]
- Oystercatcher (*Haematopus ostralegus*) [A130]

- Golden plover (*Pluvialis apricaria*) [A140]
- Grey plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Knot (*Calidris canutus*) [A143]
- Sanderling (*Calidris alba*) [A144]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed godwit (*Limosa limosa*) [A156]
- Bar-tailed godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Black-headed gull (*Chroicocephalus ridibundus*) [A179]
- Lesser black-backed gull (*Larus fuscus*) [A183]
- Little tern (*Sterna albifrons*) [A195]
- Greenland white-fronted goose (*Anser albifrons flavirostris*) [A395]
- Wetland and waterbirds [A999]

4.4 Lady's Island Lake SPA (004009)

The site synopsis (NPWS, 2015) describes the SPA as follows:

“Lady's Island Lake is situated on the east coast in Co. Wexford and comprises a shallow, brackish coastal lagoon separated from the sea by a sand and shingle barrier. An area of sea coast at Crossfintan Point, to the east, is also included in the site.”

Generic conservation objectives are available for this site (NPWS, 2021) . The site is designated for the following Special Conservation Interests (SCIs).

- Gadwall (*Anas strepera*) [A051]
- Black-headed gull (*Chroicocephalus ridibundus*) [A179]
- Sandwich tern (*Sterna sandvicensis*) [A191]
- Roseate tern (*Sterna dougallii*) [A192]
- Common tern (*Sterna hirundo*) [A193]
- Arctic tern (*Sterna paradisaea*) [A194]
- Wetland and waterbirds [A999]

4.5 The Raven SPA (004019)

The site synopsis (NPWS, 2010) describes the SPA as follows:

“The Raven SPA extends from north of Rosslare Point to Blackwater Harbour on the coast of Co. Wexford. The seaward boundary of the site extends a maximum distance of approximately 4.5 km from the shoreline to encompass important areas of shallow water utilised by some of the species of special conservation interest.”

Site specific conservation objectives are available for this site (NPWS, 2012) The site is designated for the following Special Conservation Interests (SCIs).

- Red-throated diver (*Gavia stellata*) [A001]
- Cormorant (*Phalacrocorax carbo*) [A017]
- Common scoter (*Melanitta nigra*) [A065]
- Grey plover (*Pluvialis squatarola*) [A141]

- Sanderling (*Calidris alba*) [A144]
- Greenland white-fronted goose (*Anser albifrons flavirostris*) [A395]
- Wetland and waterbirds [A999]

4.6 Tacumshin Lake SPA (004092)

The site synopsis (NPWS, 2014) describes the SPA as follows:

“Tacumshin Lake is a shallow coastal lagoon situated on the south Co. Wexford coast. The lagoon was formerly a shallow sea bay which, due to longshore drift, has become separated from the sea by a gravel/sand spit that extends across the mouth of the bay from east to west.”

Generic conservation objectives (NPWS, 2021) are available for this site. The site is designated for the following Special Conservation Interests (SCIs).

- Little grebe (*Tachybaptus ruficollis*) [A004]
- Bewick's swan (*Cygnus columbianus bewickii*) [A037]
- Whooper swan (*Cygnus cygnus*) [A038]
- Wigeon (*Anas penelope*) [A050]
- Gadwall (*Anas strepera*) [A051]
- Teal (*Anas crecca*) [A052]
- Pintail (*Anas acuta*) [A054]
- Shoveler (*Anas clypeata*) [A056]
- Tufted duck (*Aythya fuligula*) [A061]
- Coot (*Fulica atra*) [A125]
- Golden plover (*Pluvialis apricaria*) [A140]
- Grey plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Black-tailed godwit (*Limosa limosa*) [A156]
- Wetland and waterbirds [A999]

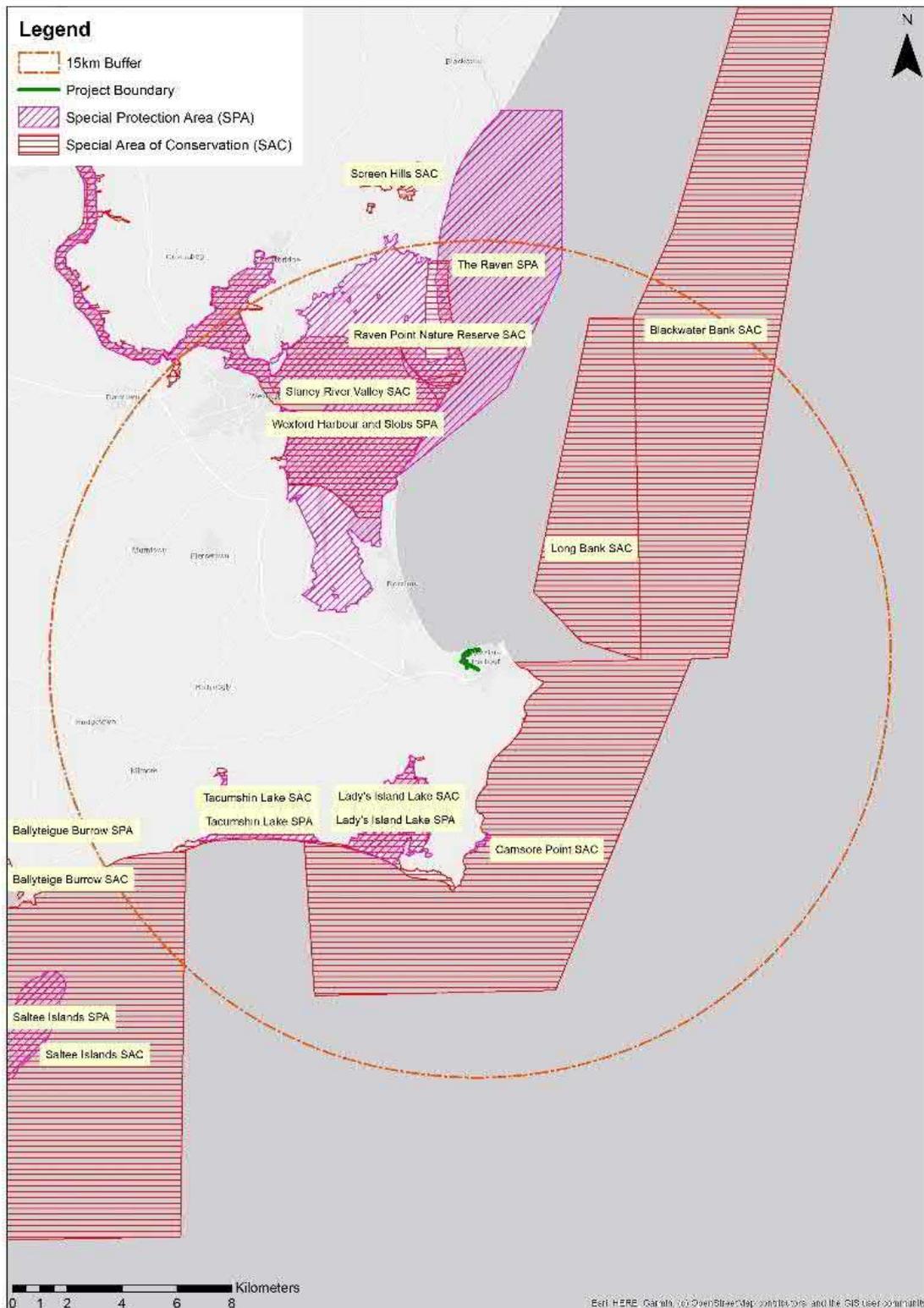
5 Impact Prediction

Having regard to the proposed works as outlined in Section 2, the potential for effects on QIs/SCIs for the following European sites is examined below:

- Slaney River Valley SAC (000781)
- Saltee Islands SAC (000707)
- Wexford Harbour and Slobs SPA (004076)
- Lady's Island Lake SPA (004009)
- The Raven SPA (004019)
- Tacumshin Lake SPA (004092)

The location of European sites in relation to the Proposed Development is provided in Figure 5.1.

Figure 5.1: Site Location in Relation to European Sites



5.1 Slaney River Valley SAC (000781)

The potential for effects on Qualifying Interests associated with the Slaney River Valley SAC (000781) is discussed in Table 5-1.

Table 5-1: Potential for effects on Qualifying Interests of the Slaney River Valley SAC (000781)

Feature of Interest	Potential for Effects	Likely Impacts
Estuaries [1130]	<p>As previously noted, hydrological connectivity is present to the Slaney River Valley SAC via a drainage ditch, and the grange big stream (hydrological route 7.4km).</p> <p>Mapping is available for the estuarine habitat associated with the river Slaney valley. The closest extent of this habitat to the outfall of the grange big stream is 2.5km to the west.</p> <p>This distance is such that surface water effects will be attenuated prior to entering into the estuarine waters.</p>	Given the location of the habitat in relation to the proposed development, no likely impacts are identified.
Mudflats and sandflats not covered by seawater at low tide [1140]	<p>Mudflats and sandflats habitat has been mapped for the River Slaney SAC. The closest extent is mapped to the border of the SAC. However, based on examination of aerial imagery, it is likely that the habitat extends further south, to the outfall of the grange big stream.</p> <p>As noted previously, hydrological connectivity is present to the Slaney River Valley SAC via a drainage ditch, and the grange big stream (hydrological route 7.4km). Given the location of the mudflat and sandflat habitat in relation to this outfall, there is potential for surface water emissions to enter into the mudflat and sandflat habitat.</p>	Given the location of the habitat in relation to the proposed development, no likely impacts are identified.
Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]	<p>Atlantic salt meadows have been mapped as part of the saltmarsh monitoring project (2011). Atlantic saltmarsh has been mapped in close proximity to the outfall for the grange big stream.</p> <p>As noted previously, hydrological connectivity is present to the Slaney River Valley SAC via a drainage ditch, and the grange big stream (hydrological route 7.4km). Given the location of the habitat in relation to this outfall, there is potential for surface water emissions to enter the Atlantic salt meadow habitat.</p>	Given the nature of saltmarsh habitats (not sensitive to water emissions), no likely effects are identified.
Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	<p>Mediterranean salt meadows have been mapped as part of the saltmarsh monitoring project (2011). Mediterranean saltmarsh has been mapped in close proximity to the outfall for the grange big stream.</p>	Given the nature of saltmarsh habitats (not sensitive to water emissions), no likely effects are identified.

Feature of Interest	Potential for Effects	Likely Impacts
	<p>As noted previously, hydrological connectivity is present to the Slaney River Valley SAC via a drainage ditch, and the grange big stream (hydrological route 7.4km). Given the location of the habitat in relation to this outfall, there is potential for surface water emissions to enter the Mediterranean salt meadow habitat.</p>	
<p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]</p>	<p>The site synopsis (NPWS, 2015) notes that floating river vegetation is found along much of the freshwater stretches within the site.</p> <p>No downstream hydrological connectivity is present between the freshwater extents of the Slaney River SAC and the Proposed Development.</p>	<p>Given the location of the freshwater extents of the Slaney River Valley SAC in relation to the proposed development, no likely effects are identified.</p>
<p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p>	<p>The site synopsis (NPWS, 2015) notes that Old oak woodlands are best represented at Tomnafinnoge, though patches are present throughout the site.</p> <p>The works area is located a significant distance from any wooded areas within the SAC boundary (the SAC boundary is located approximately 5.5km from the proposed development at its closest point).</p>	<p>Given the location of the Slaney River Valley SAC and the woodland habitats therein, no likely effects are identified.</p>
<p>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]</p>	<p>Good examples of wet woodland are found associated with Macmine marshes, along the banks of the Slaney and its tributaries, and within reedswamps.</p> <p>The works area is located a significant distance from the SAC (the SAC boundary is located approximately 5.5km from the proposed development at its closest point). There is no downstream connectivity to the alluvial woodland habitat type.</p>	<p>Given the location of the Slaney River Valley SAC and the woodland habitats therein, no likely effects are identified.</p>
<p><i>Petromyzon marinus</i> (Sea Lamprey) [1095]</p>	<p>Sea lamprey may occur in the coastal waters surrounding the outfall of the grange big stream. Given the hydrological connectivity and the potential for surface water emissions associated with the proposed works, there is potential for effects to sea lamprey.</p>	<p>Potential for impact to sea lamprey associated with surface water emissions to local marine environment.</p>
<p><i>Lampetra planeri</i> (brook lamprey) [1096]</p>	<p>Brook lamprey are associated with the freshwater stretches of the Slaney River SAC.</p> <p>No downstream hydrological connectivity is present between the freshwater extents of the Slaney River SAC and the Proposed Development</p>	<p>Given the location of the freshwater extents of the Slaney River Valley SAC in relation to the proposed development, no likely effects are identified.</p>
<p><i>Lampetra fluviatilis</i> (river lamprey) [1099]</p>	<p>River lamprey can be found in coastal, estuarine, and freshwater</p>	<p>Potential for impact to river lamprey associated with surface</p>

Feature of Interest	Potential for Effects	Likely Impacts
	<p>habitats. As such, they have potential to occur in proximity to the outfall of the grange big stream.</p> <p>Given the hydrological connectivity and the potential for surface water emissions associated with the proposed works, there is potential for effects to river lamprey.</p>	<p>water emissions to local marine environment.</p>
<p><i>Alosa fallax fallax</i> (twaite shad) [1103]</p>	<p>Twaite shad are associated with the tidal reaches of the Slaney River SAC. As such, they have potential to occur in proximity to the outfall of the grange big stream.</p> <p>Given the hydrological connectivity and the potential for surface water emissions associated with the proposed works, there is potential for effects to river lamprey.</p>	<p>Potential for impact to twaite shad associated with surface water emissions to local marine environment.</p>
<p><i>Salmo salar</i> (salmon) [1106]</p>	<p>The Conservation Objectives for the River Slaney SAC notes that the protection for salmon is only associated with the freshwater stretches of the Slaney River SAC. Migrating adult and smolt salmon pass through Slaney River estuary.</p> <p>Given the hydrological connectivity and the potential for surface water emissions associated with the proposed works, there is potential for effects to salmon.</p>	<p>Potential for impact to salmon associated with surface water emissions to local marine environment.</p>
<p><i>Lutra lutra</i> (otter) [1355]</p>	<p>Otter may occur outside of the SAC boundary, and likely use the coastal waters for commuting and foraging. A single otter was noted just outside the small boat harbour during wintering bird surveys. Given the hydrological connectivity and the potential for surface water emissions associated with the proposed works to enter the coastal waters, there is potential for indirect effects to otter</p>	<p>Potential for impact to otter associated with surface water emissions.</p>
<p><i>Phoca vitulina</i> (harbour seal)</p>	<p>Harbour seals may occur in the coastal waters surrounding the proposed development.</p> <p>Guidance is available on the risk to marine mammals from man made sound sources (DAHG 2014). This guidance outlines risks to marine mammals which may be associated with development in marine and coastal environments.</p> <p>Included in this document is an assessment of piling, drilling, and blasting. The piling referred to in the document relates to impact piling. The piling which will be utilised as part of this project is CFA piling, which involves the use of an auger to drill to the desired depth, and the hollow shaft is then filled with concrete or grout. This type of piling</p>	<p>Potential for indirect impact to prey species of harbour seal associated with surface water emissions.</p>

Feature of Interest	Potential for Effects	Likely Impacts
	<p>is, by its nature, less risky in terms of noise and vibration outputs.</p> <p>While drilling is referred to in the document as a potentially harmful activity to marine mammals, the document refers only to offshore drilling, and drilling in the coastal foreshore. The CFA piles will be installed onshore and set back approximately 230m from the coastal waters. As such, the piling activities associated with the Proposed Development are unlikely to cause impacts to seals in the surrounding waters.</p> <p>There is no requirement for blasting, or any other activities which have potential to cause impact to marine mammals.</p>	

5.2 Saltee Islands SAC (000707)

The potential for effects on Qualifying Interests associated with the Saltee Islands SAC (000707) is discussed in Table 5-2: Potential for effects on Qualifying Interests.

Table 5-2: Potential for effects on Qualifying Interests of Saltee Islands SAC

Feature of Interest	Potential for Effects	Likely Impacts
Mudflats and sandflats not covered by seawater at low tide [1140]	The Saltee Islands SAC is located a significant distance from the proposed works area (approximately 10km). Given the location of the works relative to the SAC there is no potential for impact to mudflat and sandflat habitat associated with the Saltee Islands SAC.	Given the location of the works relative to the SAC, no likely effects are identified.
Large shallow inlets and bays [1160]	The Saltee Islands SAC is located a significant distance from the proposed works area (approximately 10km). Given the location of the works relative to the SAC there is no potential for impact to large shallow inlets and bays habitat associated with the Saltee Islands SAC.	Given the location of the works relative to the SAC, no likely effects are identified.
Reefs [1170]	The Saltee Islands SAC is located a significant distance from the proposed works area (approximately 10km). Given the location of the works relative to the SAC there is no potential for impact to reef habitat associated with the Saltee Islands SAC.	Given the location of the works relative to the SAC, no likely effects are identified.
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	The Saltee Islands SAC is located a significant distance from the proposed works area (approximately 10km). Given the location of the works relative to the SAC there is no potential for impact to vegetated sea cliff habitat associated with the Saltee Islands SAC.	Given the location of the works relative to the SAC, no likely effects are identified.
Submerged or partially submerged sea caves [8330]	The Saltee Islands SAC is located a significant distance from the proposed works area (approximately 10km). Given the location of the works relative to the SAC there is no potential for impact to submerged or partially submerged sea caves associated with the Saltee Islands SAC.	Given the location of the works relative to the SAC, no likely effects are identified.
<i>Halichoerus grypus</i> (Grey Seal) [1364]	<p>Grey seals may occur in the coastal waters surrounding the proposed development. A single grey seal was noted during wintering bird surveys.</p> <p>As previously outlined, the piling which will be utilised as part of this project is CFA piling, which involves the use of an auger to drill to the desired depth, and the hollow shaft is then filled with concrete or grout. This type of piling is, by its nature, less risky in terms of noise and vibration outputs.</p>	Potential for indirect impact to prey species of grey seal associated with surface water emissions.

Feature of Interest	Potential for Effects	Likely Impacts
	<p>While drilling is referred as a potentially harmful activity to marine mammals, the document refers only to offshore drilling, and drilling in the coastal foreshore. The CFA piles will be installed onshore and set back approximately 230m from the coastal waters. As such, the piling activities associated with the Proposed Development are unlikely to cause impacts to seals in the surrounding waters.</p> <p>There is no requirement for blasting, or any other activities which have potential to cause impact to marine mammals.</p>	

5.3 Wexford Harbour and Slobs SPA (004076)

Given the location of the works in relation to the SPA, there is no potential for effects in terms of disturbance to the core foraging and roosting habitat for SCI species. The potential for disturbance to *ex situ* Special Conservation Interests, and potential for indirect effects to SCI species associated with the Wexford Harbour and Slobs SPA is discussed in Table 5-3.

Table 5-3: Potential for effects on Qualifying Interests of Wexford Harbour and Slobs SPA

Feature of Interest	Potential for Effects	Likely Impacts
Bar-tailed godwit (<i>Limosa lapponica</i>) [A157]	Bar tailed godwit were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on bar-tailed godwit are identified.
Bewick's swan (<i>Cygnus columbianus bewickii</i>) [A037]	Bewick's swan were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on Bewick's swan are identified.
Black-headed gull (<i>Chroicocephalus ridibundus</i>) [A179]	Black headed gull were recorded within the zone of influence surrounding the proposed development (peak count 49). The species was recorded in all three wintering bird seasons. As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of black-headed gull.
Black-tailed godwit (<i>Limosa limosa</i>) [A156]	<p>Black tailed godwit were recorded within the zone of influence surrounding the proposed development (peak count 53). The species was recorded in both the 2019/2020 and 2020/2021 wintering bird season within the arable field (peak counts 53 and 5 respectively). As such, there is potential for disturbance effects to the species.</p> <p>The proposed works will result in a permanent loss of 0.89 Ha of possible forage habitat within the stubble field. The remaining 6.7 Ha will not be affected by the permanent works.</p> <p>Black-tailed godwit are described in the conservation objective supporting document as having wide food and prey requirements, with the principal supporting habitat for the species listed as intertidal mud and sand flats. The habitats within the footprint of the scheme do not constitute intertidal mud and sand flats.</p> <p>The species was only recorded in significant numbers during the 2019/2020 wintering bird season. The peak count of five in the 2020/2021 season was the only</p>	There is potential for disturbance effects on <i>ex situ</i> populations of black-tailed godwit.

Feature of Interest	Potential for Effects	Likely Impacts
	<p>record of the species across that wintering season.</p> <p>This indicates that the stubble field does not comprise a key foraging area, utilised consistently by the the species. Further, agricultural land comprises a great deal of the land use within the surrounding area. As such, the permanent loss of the portion of the stubble field constitutes a negligible impact in the context of the wider landscape and SCI population.</p>	
Coot (<i>Fulica atra</i>) [A125]	<p>Coot were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.</p>	<p>Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on coot are identified.</p>
Cormorant (<i>Phalacrocorax carbo</i>) [A017]	<p>Cormorant were recorded within the coastal marine environment and hence within the zone of influence of the proposed development (peak count 30). The species was recorded in all three wintering bird seasons. As such, there is potential for disturbance effects to the species.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of cormorant.</p>
Curlew (<i>Numenius arquata</i>) [A160]	<p>Curlew were recorded within the zone of influence surrounding the proposed development (peak count 77). The species was recorded in all three wintering bird seasons, albeit in significantly lower numbers in the 202/2021 season (peak count of 12). The species was recorded within the arable field in the 2019/2020 wintering season, and in similar numbers in the 2020/2021 season. As such, there is potential for disturbance effects to the species.</p> <p>The proposed works will result in a permanent loss of 0.89Ha of possible forage habitat within the stubble field. The remaining 6.7Ha will not be affected by the permanent works. The area within the field being used by the curlew was located to the west of the proposed development footprint.</p> <p>The conservation objectives supporting document for the SPA outlines that the principal supporting habitat for curlew is in the Intertidal mud and sand flats, and North and South Slobs. The stubble field is not within the boundary of any European sites and does not constitute the principal supporting habitat for the species.</p> <p>As previously noted, agricultural land comprises a great deal of the land</p>	<p>There is potential for disturbance effects to <i>ex situ</i> populations of curlew.</p>

Feature of Interest	Potential for Effects	Likely Impacts
	<p>use within the surrounding area. Curlew were noted making use of habitats in the wider area as well as the field in both seasons where they occurred in higher numbers.</p> <p>As such, the permanent loss of the portion of the stubble field does not constitute a significant impact in the context of the wider landscape and SCI population.</p>	
Dunlin (<i>Calidris alpina</i>) [A149]	Dunlin were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on dunlin are identified.
Golden plover (<i>Pluvialis apricaria</i>) [A140]	Golden plover were not recorded as part of wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on golden plover are identified.
Goldeneye (<i>Bucephala clangula</i>) [A067]	Goldeneye were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on goldeneye are identified.
Great crested grebe (<i>Podiceps cristatus</i>) [A005]	Great crested grebe were recorded within the coastal zone of influence east of the proposed development (peak count 4). The species was recorded in all three wintering bird seasons. As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of great crested grebe.
Greenland white-fronted goose (<i>Anser albifrons flavirostris</i>) [A395]	Greenland white fronted geese were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on greenland white fronted geese are identified.
Grey heron (<i>Ardea cinerea</i>) [A028]	Grey heron were recorded within the zone of influence surrounding the proposed development (peak count 4). The species was recorded in the 2019/2020 and 2021/2022 wintering bird seasons. As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of grey heron.
Grey plover (<i>Pluvialis squatarola</i>) [A141]	Grey plover were not recorded as part of these surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on grey plover are identified.
Hen harrier (<i>Circus cyaneus</i>) [A082]	Hen harrier were not recorded within the Zol as part of these surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on hen harrier are identified.
Knot (<i>Calidris canutus</i>) [A143]	Knot were not recorded as part of these surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on knot are identified.

Feature of Interest	Potential for Effects	Likely Impacts
Lapwing (<i>Vanellus vanellus</i>) [A142]	<p>Lapwing were recorded within the zone of influence surrounding the proposed development (peak count 151). The species was recorded in all three wintering bird seasons. The species was also recorded in wintering season 2020/2021, with 55 individuals recorded in the stubble field on one occasion during the season. As such, there is potential for disturbance effects to the species.</p> <p>The proposed works will result in a permanent loss of 0.89Ha of possible forage habitat within the stubble field. The remaining 6.7Ha will not be affected by the permanent works.</p> <p>The conservation objectives note that the principal supporting habitat for the species is located within the North and South slob. The stubble field is not located within the boundary of any European sites and does not constitute principal supporting habitat utilised by the species. Further, there is a great deal of agricultural land in the surrounding area.</p> <p>As such, the loss of a small proportion of habitat for the species in the context of the wider landscape does not comprise a significant effect on the SCI.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of lapwing.</p>
Lesser black-backed gull (<i>Larus fuscus</i>) [A183]	<p>Lesser black backed gull were recorded within the zone of influence surrounding the proposed development (peak count 35). The species was recorded in the 2019/2020 and 2021/2022 wintering bird seasons. As such, there is potential for disturbance effects to the species.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of lesser black backed gull.</p>
Light-bellied brent goose (<i>Branta bernicla hrota</i>) [A046]	<p>Brent geese were recorded within the zone of influence surrounding the proposed development (peak count 9 with 35 recorded flying overhead). The species was recorded in the 2019/2020 and 2021/2022 wintering bird seasons. As such, there is potential for disturbance effects to the species.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of brent geese.</p>
Little grebe (<i>Tachybaptus ruficollis</i>) [A004]	<p>Little grebe were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.</p>	<p>Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on little grebe are identified.</p>
Little tern (<i>Sterna albifrons</i>) [A195]	<p>Little tern were not recorded as part of the wintering bird surveys. As such, there is no potential for impact</p>	<p>Given the location of the works relative to the SPA, and the results</p>

Feature of Interest	Potential for Effects	Likely Impacts
Mallard (<i>Anas platyrhynchos</i>) [A053]	<p>to this species associated with the works.</p> <p>A single mallard was recorded during wintering bird surveys in the 2021/2022 season. As such, there is potential for disturbance effects on mallard populations</p>	<p>of the wintering bird survey no likely effects on little tern are identified.</p> <p>There is potential for disturbance effects on <i>ex situ</i> populations of mallard.</p>
Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	<p>Oystercatcher were recorded within the zone of influence surrounding the proposed development (peak count 4). The species was recorded in all three wintering bird seasons and was recorded within the stubble field. As such, there is potential for disturbance effects on oystercatcher.</p> <p>The proposed works will result in a permanent loss of 0.89Ha of possible forage habitat within the stubble field. The remaining 6.7Ha will not be affected by the permanent works.</p> <p>The conservation objectives note that the principal supporting habitat for the species is Intertidal mud and sand flats. The stubble field is not located within the boundary of any European sites and does not constitute principal supporting habitat utilised by the species. Further, there is a great deal of agricultural land in the surrounding area.</p> <p>As such, the loss of a small proportion of habitat for the species in the context of the wider landscape does not comprise a significant effect on the SCI.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of oystercatcher.</p>
Pintail (<i>Anas acuta</i>) [A054]	<p>Pintail were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.</p>	<p>Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on pintail are identified.</p>
Red-breasted merganser (<i>Mergus serrator</i>) [A069]	<p>Red breasted merganser were recorded within the zone of influence surrounding the proposed development (peak count 6). The species was recorded in all three wintering bird seasons. As such, there is potential for disturbance effects to the species.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of red breasted merganser.</p>
Redshank (<i>Tringa totanus</i>) [A162]	<p>Redshank were recorded within the zone of influence surrounding the proposed development (peak count 5). The species was recorded in the 2020/2021 and 2021/2022 wintering bird seasons (peak counts 5 and 1 respectively). As such, there is potential for disturbance effects to the species.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of redshank.</p>

Feature of Interest	Potential for Effects	Likely Impacts
Sanderling (<i>Calidris alba</i>) [A144]	Sanderling were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on sanderling are identified.
Scaup (<i>Aythya marila</i>) [A062]	Scaup were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on scaup are identified.
Shelduck (<i>Tadorna tadorna</i>) [A048]	Shelduck were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on shelduck are identified.
Teal (<i>Anas crecca</i>) [A052]	Teal were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on teal are identified.
Whooper swan (<i>Cygnus cygnus</i>) [A038]	Whooper swan were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on whooper swan are identified.
Wigeon (<i>Anas penelope</i>) [A050]	Wigeon were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on wigeon are identified.
Wetland and waterbirds [A999]	Hydrological connectivity has been identified between the works area and the wetland habitats associated with the SPA. As such, there is potential for surface water emissions to enter into the SPA.	There is potential for degradation of wetland habitat associated with the SPA.

5.4 Lady's Island Lake SPA (004009)

Given the location of the works in relation to the SPA, there is no potential for effects in terms of disturbance to the core foraging and roosting habitat for SCI species. The potential for disturbance to *ex situ* Special Conservation Interests, and potential for indirect effects to SCI species associated with the Lady's Island Lake SPA is discussed in Table 5-4.

Table 5-4: Potential for effects on Qualifying Interests of Lady's Island Lake SPA

Feature of Interest	Potential for Effects	Likely Impacts
Gadwall (<i>Anas strepera</i>) [A051]	Gadwall were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on gadwell are identified.
Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Black headed gull were recorded within the zone of influence surrounding the proposed development (peak count 49). The species was recorded in all three wintering bird seasons. As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of black-headed gull.
Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]	Sandwich tern were recorded during the 2019/2020 and in the 2021/2022 wintering bird seasons in low numbers (peak count 2 and 6 respectively). As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of sandwich tern.
Roseate Tern (<i>Sterna dougallii</i>) [A192]	Roseate tern were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on roseate tern are identified.
Common Tern (<i>Sterna hirundo</i>) [A193]	Common tern were recorded during the 2019/2020 season in low numbers (peak count 4). As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of common tern.
Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Arctic tern were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on arctic tern are identified.
Wetland and Waterbirds [A999]	The SPA is located approximately 4km to the south of the proposed development and is buffered by land. Given the location relative to the proposed development there is no functional connectivity to the wetland habitats associated with the SPA.	Given the location of the proposed development relative to the SPA no likely effects on wetland habitats is identified.

5.5 The Raven SPA (004019)

Given the location of the works in relation to the SPA, there is no potential for effects in terms of disturbance to the core foraging and roosting habitat for SCI species. The potential for disturbance to *ex situ* Special Conservation Interests, and potential for indirect effects to SCI species associated with The Raven SPA is discussed in Table 5-5.

Table 5-5: Potential for effects on Qualifying Interests of The Raven SPA

Feature of Interest	Potential for Effects	Likely Impacts
Red-throated Diver (<i>Gavia stellata</i>) [A001]	Red throated diver were recorded within the zone of impact in the 2019/2020 wintering season (peak count 2) and the 2021/2022 wintering season (peak count 10). As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of red-throated diver.
Cormorant (<i>Phalacrocorax carbo</i>) [A017]	Cormorant were recorded in all three wintering seasons (peak count 30). As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of cormorant.
Common Scoter (<i>Melanitta nigra</i>) [A065]	Common scoter were recorded in the 2020/2021 wintering season (peak count 35) and the 2021/2022 wintering season (peak count 50). As such, there is potential for disturbance effects to the species.	There is potential for disturbance effects on <i>ex situ</i> populations of common scoter.
Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Grey plover were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on grey plover are identified.
Sanderling (<i>Calidris alba</i>) [A144]	Sanderling were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on sanderling are identified.
Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	Greenland white fronted geese were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on Greenland white fronted goose are identified.
Wetland and Waterbirds [A999]	The SPA is located approximately 7km to the north of the proposed development. Given the location relative to the proposed development there is no functional connectivity to the wetland habitats associated with the SPA.	Given the location of the proposed development relative to the SPA no likely effects on wetland habitats is identified.

5.6 Tacumshin Lake SPA (004092)

Given the location of the works in relation to the SPA, there is no potential for effects in terms of disturbance to the core foraging and roosting habitat for SCI species. The potential for disturbance to *ex situ* Special Conservation Interests, and potential for indirect effects to SCI species associated with Tacumshin Lake SPA is discussed in Table 5-6.

Table 5-6: Potential for effects on Qualifying Interests of Tacumshin Lake SPA

Feature of Interest	Potential for Effects	Likely Impacts
Little Grebe (<i>Tachybaptus ruficollis</i>) [A004]	Little grebe were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on little grebe are identified.
Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037]	Bewick's swan were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on Bewick's swan are identified.
Whooper Swan (<i>Cygnus cygnus</i>) [A038]	Whooper swan were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on whooper swan are identified.
Wigeon (<i>Anas penelope</i>) [A050]	Wigeon were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on wigeon are identified.
Gadwall (<i>Anas strepera</i>) [A051]	Gadwell were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on gadwell are identified.
Teal (<i>Anas crecca</i>) [A052]	Teal were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on teal are identified.
Pintail (<i>Anas acuta</i>) [A054]	Pintail were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on pintail are identified.
Shoveler (<i>Anas clypeata</i>) [A056]	Shoveler were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on shoveler are identified.
Tufted Duck (<i>Aythya fuligula</i>) [A061]	Tufted duck were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on tufted duck are identified.
Coot (<i>Fulica atra</i>) [A125]	Coot were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on coot are identified.
Golden Plover (<i>Pluvialis apricaria</i>) [A140]	Golden plover were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results of the wintering bird survey no likely effects on golden plover are identified.
Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Grey plover were not recorded as part of the wintering bird surveys. As such, there is no potential for impact to this species associated with the works.	Given the location of the works relative to the SPA, and the results

Feature of Interest	Potential for Effects	Likely Impacts
Lapwing (<i>Vanellus vanellus</i>) [A142]	<p>Lapwing were recorded within the zone of influence surrounding the proposed development (peak count 151). The species was recorded in all three wintering bird seasons. The species was also recorded in wintering season 2020/2021, with 55 individuals recorded in the stubble field on one occasion during the season. As such, there is potential for disturbance effects to the species.</p> <p>The proposed works will result in a permanent loss of 0.89Ha of possible forage habitat within the stubble field. The remaining 6.7Ha will not be affected by the permanent works.</p> <p>No site-specific conservation objectives, or supporting documents are available for Tacumshin Lake which indicates the principal supporting habitat for the species. However, the stubble field is not located within the boundary of any European sites. Further, there is a great deal of agricultural land in the surrounding area.</p> <p>As such, the loss of a small proportion of habitat for the species in the context of the wider landscape does not comprise a significant effect on the SCI.</p>	<p>of the wintering bird survey no likely effects on grey plover are identified.</p> <p>There is potential for disturbance effects on <i>ex situ</i> populations of lapwing.</p>
Black-tailed godwit (<i>Limosa limosa</i>) [A156]	<p>Black tailed godwit were recorded within the zone of influence surrounding the proposed development (peak count 53). The species was recorded in both the 2019/2020 and 2020/2021 wintering bird season within the arable field (peak counts 53 and 5 respectively). As such, there is potential for disturbance effects to the species.</p> <p>The proposed works will result in a permanent loss of 0.89Ha of possible forage habitat within the stubble field. The remaining 6.7Ha will not be affected by the permanent works.</p> <p>No site-specific conservation objectives, or supporting documents are available for Tacumshin Lake which indicates the principal supporting habitat for the species.</p> <p>The species was only recorded in significant numbers during the 2019/2020 wintering bird season. The peak count of five in the 2020/2021 season was the only record of the species across that wintering season.</p> <p>This indicates that the stubble field does not comprise a key foraging area, utilised consistently by the the species. Further, agricultural land comprises a great deal of the land use within the surrounding area. As such, the permanent loss of the portion of the stubble field constitutes a negligible impact in the context of the wider landscape and SCI population.</p>	<p>There is potential for disturbance effects on <i>ex situ</i> populations of black-tailed godwit.</p>
Wetland and Waterbirds [A999]	<p>The SPA is located approximately 8km to the south of the proposed development and is buffered by land. Given the location relative to the proposed development there is no functional connectivity to the wetland habitats associated with the SPA.</p>	<p>Given the location of the proposed development relative to the SPA no likely effects on wetland habitats is identified.</p>

6 In-Combination Effects

Article 6(3) of the Habitats Directive requires 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.'

It is therefore required that the potential impacts of the proposed development are considered in combination with any other relevant plans or projects. A search of the Wexford County Council planning database (<https://www.wexfordcoco.ie/planning/search-planning-applications>), and the EIA portal (<https://housinggovie.maps.arcgis.com/apps/webappviewer>) was undertaken to examine projects with potential for in combination effects.

Applications which were made typically consisted of extensions and renovations to existing houses, and retention of existing developments. These are small scale developments which, due to their location do not have the potential to result in cumulative impacts in association with the proposed works. Other, larger planning applications area discussed hereunder:

Urban Quarter Development

Wexford County Council applied for the proposed development of a 3.6 Ha. derelict site as a new mixed-use urban quarter, a new boardwalk and marina and ancillary works at Trinity Wharf, Wexford. An EIA Report has been prepared for the proposed development located at Trinity Wharf, Trinity Street in the townland of Townparks, Wexford Town. This location is 11km from the works area, adjacent the River Slaney SAC (000781) and Wexford Harbour and Slobs SPA (004076). EIA reports (reference numbers 6462743, 76323729, 46089173, 114728669) and NIS reports (reference number 64515732) have been completed for this development. Given the location of this development there is no potential for cumulative or in combination effects

Residential Development

William Neville & Sons proposed the development of 413 residential units, a retail unit, 2 crèche facilities 769 Car parking spaces at Carcur, Park, Wexford Town, County Wexford. This location is adjacent the River Slaney SAC (000781) and in proximity to Wexford Harbour and Slobs SPA (004076) albeit at a significant distance from the proposed development within Wexford town. EIAR reports (reference numbers 39104481) and NIS reports (reference number 25453023) have been completed for this development. Given the location of these developments relative to the proposed road scheme, there is no potential for cumulative or in combination effects.

Industrial Development

Glanbia Ireland Limited located at Rocklands, Wexford, Co. Wexford. Applied to upgrade involved the extension of existing buildings on the site to allow for the installation of new process equipment to replace older inefficient equipment. This location is adjacent the River Slaney SAC (000781) and in proximity to Wexford Harbour and Slobs SPA (004076). This expansion has been operational for 4 years.

Given the location and timing of this development relative to the proposed road scheme, there is no potential for cumulative or in combination effects.

Solar Farms

The following developments are noted in townlands with hydrological links to the River Slaney SAC (000781), Tacumshin Lake SAC (000709), Wexford Harbour and Slobs SPA (004076) and Tacumshin Lake SPA (004092):

- Application number: EXD00733 located 4.3km from the works area
- Application number: EXD00747 located 7.9km from the works area
- Application number: 20200441 located 10km from the works area
- Application number: 20171314 located 10km from the works area
- Application number: 20161212 located 10km from the works area
- Application number: 20161110 located 10km from the works area
- Application number: EXD00749 located 14km from the works area

Given the location of the solar farm related works there is no potential for cumulative or in combination effects.

N25 Ballygillane roundabout

An application was made in October 2019 for the provision of a new roundabout at Ballygillane little. The project was approved in January 2020. A report for the screening of Appropriate Assessment was produced for the project and found no potential for significant effects. The works to construct the roundabout are programmed to take place prior to the construction phase for the proposed development commencing. Given the timing of the works, there is no potential for cumulative or in combination effects.

Port upgrade

In July 2020 an application for a proposed new access road, roundabout, internal road, and freight entrance plaza was lodged. Planning approval for this project was received in August 2020. The project is located predominantly within the existing hard standing associated with the port.

A screening for appropriate assessment was carried out for this project and found no potential for significant effects. The upgrades associated with the port will be completed in advance of the proposed development being constructed. As such, given the timing, nature and scale of the port upgrade works, there is no potential for cumulative or in-combination effects identified.

N11/N25 Oilgate to Rosslare Harbour Project

Wexford County Council is working in association with Transport Infrastructure Ireland (TII) to develop an approximate 30km section of high-quality road which will link Rosslare Europort/Wexford with both Dublin via the M11 and Cork/Waterford via the N25. A selected scheme option has been confirmed for the N11/N25 Oilgate to Rosslare Harbour Project and it is currently estimated that a planning application for the scheme may be submitted to An Bord Pleanála in late 2023 or early 2024. The scheme will be subject to its own environmental assessment which will incorporate an assessment of cumulative and in-combination effects that may occur. Subject to separate planning consents for both projects, the proposed development will be completed in advance of the possible commencement of the N11/N25 Oilgate to Rosslare Harbour project. There is, therefore, no potential for cumulative or in-combination effects associated with the proposed development.

Conclusion

The scale, nature, locations, extent and duration of the proposed works are such that the project is unlikely to measurably act in-combination with any other plan or project such as to cause likely significant effects. There are no identified plans or consented projects which have the potential to act in-combination with the proposed works in relation to any identified effects. The main consideration regarding in-combination effects is the existing port, Rosslare town and land use in the area which are sources of pollutant and existing disturbance. These are considered in this assessment in relation to surface water runoff and noise disturbance in relation to birds, marine mammals and aquatic fish species. Measurable potential effects from the proposed development are assessed as imperceptible. Significant effects are unlikely on any European site. Mitigation outlined in Section 8 is appropriate to rule out any possible additional impacts to local water quality and disturbance on birds. Mitigation outlined will ensure possible localised impacts associated with the project do not result in measurable effects including additional pressures on QI/ SC1 of remote European sites.

7 Potential for Adverse Effects on Site Integrity

European and national legislation places a collective obligation on Ireland and its citizens to maintain or restore habitats and species in the Natura 2000 Network to favourable conservation condition. Ireland has determined conservation objectives for European Sites which define favourable conservation condition for habitats and species protected under the Habitats Directive and Birds Directive.

It has been determined through desk-based assessment and ecological field surveys that the proposed development in-combination with existing land uses, plans and projects may effect the qualifying interests/special conservation interests of European Sites, due to impacts associated with the proposed development. This assessment is precautionary and based on imperceptible changes due to the addition of project to existing baseline effects. A summary of these identified effects is provided below in table 7.1.

Table 7-1: Summary of Likely Effects

European Site	Qualifying Interest/Special Conservation Interest	Likely Effect
Slaney River Valley SAC	Mudflats and sandflats not covered by seawater at low tide [1140]	Potential for impact through surface water emissions
	<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	
	<i>Lampetra fluviatilis</i> (river lamprey) [1099]	
	<i>Alosa fallax fallax</i> (twaité shad) [1103]	
	<i>Salmo salar</i> (salmon) [1106]	
	<i>Lutra lutra</i> (otter) [1355]	
Saltee Islands SAC	<i>Phoca vitulina</i> (harbour seal) [1365]	Potential for impact through surface water emissions
	<i>Halichoerus grypus</i> (Grey Seal) [1364]	
Wexford Harbour and Slobs SPA	Black-headed gull (<i>Chroicocephalus ridibundus</i>) [A179]	Potential for disturbance effects to ex situ populations through noise emissions
	Black-tailed godwit (<i>Limosa limosa</i>) [A156]	
	Cormorant (<i>Phalacrocorax carbo</i>) [A017]	
	Curlew (<i>Numenius arquata</i>) [A160]	
	Great crested grebe (<i>Podiceps cristatus</i>) [A005]	
	Grey heron (<i>Ardea cinerea</i>) [A028]	
	Lapwing (<i>Vanellus vanellus</i>) [A142]	
	Lesser black-backed gull (<i>Larus fuscus</i>) [A183]	
	Light-bellied brent goose (<i>Branta bernicla hrota</i>) [A046]	
	Mallard (<i>Anas platyrhynchos</i>) [A053]	
	Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	
	Red-breasted merganser (<i>Mergus serrator</i>) [A069]	
	Redshank (<i>Tringa totanus</i>) [A162]	

European Site	Qualifying Interest/Special Conservation Interest	Likely Effect
	Wetland and waterbirds [A999]	Potential for impact through surface water emissions
Ladys Island Lake SPA	Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Sandwich Tern (<i>Sterna sandvicensis</i>) [A191] Common Tern (<i>Sterna hirundo</i>) [A193]	Potential for disturbance effects to <i>ex situ</i> populations through noise emissions
The Raven SPA	Red-throated Diver (<i>Gavia stellata</i>) [A001] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Common Scoter (<i>Melanitta nigra</i>) [A065]	Potential for disturbance effects to <i>ex situ</i> populations through noise emissions
Tacumshin Lake SPA	Lapwing (<i>Vanellus vanellus</i>) [A142] Black-tailed Godwit (<i>Limosa limosa</i>) [A156]	Potential for disturbance effects to <i>ex situ</i> populations through noise emissions

An assessment of the potential impacts identified in Section 5 to adversely affect the integrity of the SAC was undertaken in relation to the attributes, measures and targets that would be expected to define the favourable conservation condition of the qualifying interests of the aforementioned European Sites is provided below.

7.1 Slaney River Valley SAC (00781)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Slaney River Valley SAC due to indirect impacts associated with the proposed development as follows:

Impacts to the following QIs through surface water emissions:

- Mudflats and sandflats not covered by seawater at low tide [1140]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra fluviatilis* (river lamprey) [1099]
- *Alosa fallax fallax* (twaite shad) [1103]
- *Lutra lutra* (otter) [1355]
- *Phoca vitulina* (harbour seal)
- *Salmo salar* (Atlantic salmon)

Site Specific Conservation Objectives have been developed for Slaney River Valley SAC. An assessment of the potential for adverse effects on the integrity of the Slaney River Valley SAC is presented hereunder.

Table 7-2 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC - Mudflats and sandflats not covered by seawater at low tide [1140]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Habitat area	Hectares	The permanent habitat area is stable or increasing,	<p>No works are proposed within areas of mudflat. The closest extent of this habitat to the proposed works is located. There will be no direct loss of tidal mudflats and sandflats associated with the works.</p> <p>There is potential for surface water pollution to enter into the habitat during both the construction and operational phase.</p> <p>However, there will be no alterations to the hydrological process which govern the sediment processes within the SAC. As such, there will be no alteration to the extent of tidal mudflats and sand flats within the SAC.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Community distribution	Hectares	The following community types should be maintained in a natural condition: Estuarine muds dominated by polychaetes and crustaceans community complex; and Sand dominated by polychaetes community complex	<p>The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.</p> <p>Changes in pH which are associated with the release of cement fines into watercourses have the potential to cause die off among invertebrate communities within the mud complexes, and an associated change in the community distribution within the site.</p>	Impacts on the community distribution would constitute a negative effect on site's integrity .

Table 7-3 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC - *Petromyzon marinus* (Sea Lamprey) [1095]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Distribution: extent of anadromy	% of river accessible	Greater than 75% of main stem length of rivers accessible from estuary	The proposed works are located entirely outside of the SAC boundary. There are no works that will restrict access to any rivers which are accessible from the estuary.	No potential for Adverse Effects on Site Integrity have been identified.
Population structure of juveniles	Number of age/size groups	At least three age/size groups present	<p>The proposed works are located entirely outside of the SAC boundary. There will be no direct impacts to juvenile lamprey within the SAC itself.</p> <p>The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.</p> <p>Changes in pH which are associated with surface water emissions into watercourses have the potential to cause mortality of lamprey downstream of the proposed development.</p> <p>Mortality of lamprey locally does not however have the potential to result in a loss of age groups within the SAC system.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Juvenile density in fine sediment	Juveniles/m	Juvenile density at least 1/m ²	The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.	Impacts on the juvenile density would constitute a negative effect on site's integrity .

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Extent and distribution of spawning habitat	m ² and occurrence	No decline in extent and distribution of spawning beds. Improved dispersal of spawning beds into areas upstream of barriers	<p>Changes in pH which are associated with surface water emissions into watercourses have the potential to reduce fitness of lamprey downstream of the proposed development. This has the potential to result in a decrease in the density of juveniles in fine sediment.</p> <p>The proposed works are located entirely outside of the SAC boundary. There are no works that will result in impacts to spawning habitat such that there is a decline in extent and distribution of same.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Extent and distribution of spawning habitat	Number of positive sites in 3rd order channels (and greater), downstream of spawning areas	More than 50% of sample sites positive	<p>The proposed works are located entirely outside of the SAC boundary. There are no works that will result in impacts to spawning habitat such that there is a decline in extent and distribution of same.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-4 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC *Lampetra fluviatilis* (river lamprey) [1099] [1095]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Distribution: extent of anadromy	% of river accessible	Greater than 75% of main stem and major tributaries down to second order accessible from estuary	The proposed works are located entirely outside of the SAC boundary. There are no works that will restrict access to any rivers which are accessible from the estuary.	No potential for Adverse Effects on Site Integrity have been identified.
Population structure of juveniles	Number of age/size groups	At least three age/size groups of river/brook lamprey present	<p>The proposed works are located entirely outside of the SAC boundary. There will be no direct impacts to juvenile lamprey within the SAC itself.</p> <p>The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.</p> <p>Changes in pH which are associated with surface water emissions into watercourses have the potential to cause mortality of lamprey downstream of the proposed development.</p> <p>Mortality of lamprey locally does not however have the potential to result in a loss of age groups within the SAC system.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Juvenile density in fine sediment	Juveniles/m	Mean catchment juvenile density of brook/river lamprey at least 2/m ²	The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.	Impacts on the juvenile density would constitute a negative effect on site's integrity .

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Extent and distribution of spawning habitat	m ² and occurrence	No decline in extent and distribution of spawning beds.	<p>Changes in pH which are associated with surface water emissions into watercourses have the potential to reduce fitness of lamprey downstream of the proposed development. This has the potential to result in a decrease in the density of juveniles in fine sediment.</p> <p>The proposed works are located entirely outside of the SAC boundary. There are no works that will result in impacts to spawning habitat such that there is a decline in extent and distribution of same.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Extent and distribution of spawning habitat	Number of positive sites in 2nd order channels (and greater), downstream of spawning areas	More than 50% of sample sites positive	<p>The proposed works are located entirely outside of the SAC boundary. There are no works that will result in impacts to spawning habitat such that there is a decline in extent and distribution of same.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-5 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC - *Alosa fallax fallax* (twaite shad) [1103] and *Salmo salar* (Salmon) [1106]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Distribution: extent of anadromy	% of river accessible	Greater than 75% of main stem length of rivers accessible from estuary	The proposed works are located entirely outside of the SAC boundary. There are no works that will restrict access to any rivers which are accessible from the estuary.	No potential for Adverse Effects on Site Integrity have been identified.
Population structure - age classes	Number of age classes	More than one age class present	<p>The proposed works are located entirely outside of the SAC boundary. The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.</p> <p>Changes in pH which are associated with surface water emissions into watercourses have the potential to cause mortality of twaite shad downstream of the proposed development.</p> <p>Mortality of twaite shad locally does not however have the potential to result in a loss of age groups across the SAC system.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Extent and distribution of spawning habitat	m ² and occurrence	No decline in extent and distribution of spawning habitats	Twaite shad are known to spawn in the freshwater reaches of the SAC. The proposed works are located entirely outside of the SAC boundary. Further, there is no downstream hydrological connectivity to the freshwater extents of the river system. As such, there is no potential for a decline in extent and distribution	No potential for Adverse Effects on Site Integrity have been identified.

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Water quality - oxygen levels	Milligrammes per litre	No lower than 5mg/l	<p>of spawning habitats associated with the proposed works.</p> <p>The proposed works are located entirely outside of the SAC boundary. The potential for addition to existing pollution in watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development. Changes in water quality have the potential to cause a reduction in the oxygen levels in waters downstream of the proposed development.</p>	Impacts on water quality would constitute a negative effect on site's integrity .
Spawning habitat quality: Filamentous algae; macrophytes; sediment	Occurrence	Maintain stable gravel substrate with very little fine material, free of filamentous algal (macroalgae) growth and macrophyte (rooted higher plants) growth	<p>Twite shad and Salmon are known to spawn in the freshwater reaches of the SAC. The proposed works are located entirely outside of the SAC boundary. Further, there is no downstream hydrological connectivity to the freshwater extents of the river system. As such, there is no potential for impact to spawning habitats associated with the proposed works.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-6 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC - *Lutra lutra* (otter) [1355]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Distribution	Percentage positive survey sites	No significant decline	The works are located entirely outside of the SAC boundary. There are no works required within suitable habitat for the species, and no evidence of any holts or couches recorded during site walkovers.	No potential for Adverse Effects on Site Integrity have been identified.
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 64.7ha above high water mark (HWM); 453.4ha along river banks/ around ponds	The works are located entirely outside of the SAC boundary. There are no works required within suitable habitat for the species, and no evidence of any holts or couches recorded during site walkovers. There is no potential for loss of terrestrial habitat for otters within the SAC boundary.	No potential for Adverse Effects on Site Integrity have been identified.
Extent of marine habitat	Hectares	No significant decline. Area mapped and calculated as 534.7ha	The works are located entirely outside of the SAC boundary. There are no works required within marine habitat. There is no potential for loss of marine habitat for otters within the SAC boundary.	No potential for Adverse Effects on Site Integrity have been identified.
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 264.1km	The works are located entirely outside of the SAC boundary. There are no works required within freshwater habitat. There is no potential for loss of freshwater river habitat for otters within the SAC boundary.	No potential for Adverse Effects on Site Integrity have been identified.
Extent of freshwater (lake/lagoon) habitat	Hectares	No significant decline. Area mapped and calculated as 0.4ha	The works are located entirely outside of the SAC boundary. There are no	No potential for Adverse Effects on Site Integrity have been identified.

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
			<p>works required within lake or lagoon habitat.</p> <p>There is no potential for loss of lake or lagoon habitat for otters within the SAC boundary.</p>	
Couching sites and holts	Number	No significant decline	<p>No couching sites or holts were identified within 150m of the proposed development. There is no potential for loss of couching sites or holts associated with the Proposed Development.</p>	<p>No potential for Adverse Effects on Site Integrity have been identified.</p>
Fish Biomass Available	Kilograms	No significant decline	<p>The potential for pollution of watercourses with downstream connectivity has been identified during both the construction and operational phases of the Proposed Development.</p> <p>Changes in pH which are associated with surface water emissions into watercourses have the potential to cause mortality of fish downstream of the proposed development within the SAC boundary.</p> <p>There is potential, therefore for a decrease in the fish biomass available for otters within the SAC.</p>	<p>Loss of fish biomass would constitute a negative effect on site's integrity.</p>
Barriers to connectivity	Number	No significant increase	<p>The proposed development does not intersect with any rivers. As such, the proposed works will not result in any barriers to connectivity for otter. The placement of the road alignment is such that it will not result in loss of connectivity for otters to the coastal environment.</p>	<p>No potential for Adverse Effects on Site Integrity have been identified.</p>

Table 7-7 Assessment of Potential for Adverse Effects on the Site Integrity Slaney River Valley SAC - *Phoca vitulina* (harbour seal)

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use	No barriers to suitable habitat will arise	No potential for Adverse Effects on Site Integrity have been identified.
Breeding behaviour	Breeding sites	The breeding sites should be maintained in a natural condition.	No disturbance will arise to breeding sites. No breeding sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified
Moulting behaviour	Moult haul-out sites	The moult haul-out sites should be maintained in a natural condition.	No disturbance will arise to moulting sites. No moulting sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified.
Resting behaviour	Resting haul-out sites	The resting haul-out sites should be maintained in a natural condition.	No disturbance will arise to resting sites. No resting sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified.
Disturbance	Level of Impact	Human activities should occur at levels that do not adversely affect the harbour seal population at the site.	A single harbour seals were recorded within the ZoI of the proposed development. Given the low levels recorded, the location of the proposed development relative to the coast line, and the nature of works involved (i.e. no blasting) no disturbance is likely to harbour seal within the ZoI at levels significant enough to impact the population at the site.	No potential for Adverse Effects on Site Integrity have been identified.

7.2 Saltee Islands SAC (000707)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Saltee Islands SAC due to indirect impacts associated with the proposed development as follows:

Impacts to the following QIs through surface water emissions:

- *Halichoerus grypus* (Grey Seal) [1364]

Table 7-8 Assessment of Potential for Adverse Effects on the Site Integrity Saltee Islands SAC - *Halichoerus grypus* (Grey Seal) [1364]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use	No barriers to suitable habitat will arise	No potential for Adverse Effects on Site Integrity have been identified.
Breeding behaviour	Breeding sites	The breeding sites should be maintained in a natural condition.	No disturbance will arise to breeding sites. No breeding sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified.
Moulting behaviour	Moult haul-out sites	The moult haul-out sites should be maintained in a natural condition.	No disturbance will arise to moulting sites. No moulting sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified.
Resting behaviour	Resting haul-out sites	The resting haul-out sites should be maintained in a natural condition.	No disturbance will arise to resting sites. No resting sites occur within 5km of the development.	No potential for Adverse Effects on Site Integrity have been identified.
Population Composition	Number of cohorts	The grey seal population occurring within this site should contain adult, juvenile and pup cohorts annually	No risk is identified from the project	No potential for Adverse Effects on Site Integrity have been identified.
Disturbance	Level of Impact	Human activities should occur at levels that do not adversely affect the harbour seal population at the site.	A single grey seal was recorded in the coastal waters surrounding the proposed development. Given the location of the works, and the nature of the noise and vibration effects anticipated, no disturbance will occur at levels high enough to adversely affect the harbour seal population.	No potential for Adverse Effects on Site Integrity have been identified.

7.3 Wexford Harbour and Slobs SPA (004076)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Wexford Harbour and Slobs SPA due to indirect impacts associated with the proposed development as follows:

Impacts to the following SCIs:

- Black-headed gull (*Chroicocephalus ridibundus*) [A179]
- Black-tailed godwit (*Limosa limosa*) [A156]
- Cormorant (*Phalacrocorax carbo*) [A017]
- Curlew (*Numenius arquata*) [A160]
- Great crested grebe (*Podiceps cristatus*) [A005]
- Grey heron (*Ardea cinerea*) [A028]
- Lapwing (*Vanellus vanellus*) [A142]
- Lesser black-backed gull (*Larus fuscus*) [A183]
- Light-bellied brent goose (*Branta bernicla hrota*) [A046]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Red-breasted merganser (*Mergus serrator*) [A069]
- Redshank (*Tringa totanus*) [A162]
- Wetland and waterbirds [A999]

Site Specific Conservation Objectives have been developed for the Wexford Harbour and Slobs SPA. An assessment of the potential for adverse effects on the integrity of the Wexford Harbour and Slobs SPA is presented hereunder

Table 7-9 Assessment of Potential for Adverse Effects on the Site Integrity - Black-headed gull (*Chroicocephalus ridibundus*) [A179]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Black headed gull were recorded within the zone of influence surrounding the proposed development (peak count 49). The species was recorded in all three wintering bird seasons.</p> <p>There is potential for disturbance effects associated with the construction and operational phase of the Proposed Development.</p> <p>The wintering bird survey reports do not indicate that the habitats within the Zol are key foraging habitats for the species. As such, the disturbance from such an area does not have potential to result in a decline in the population trend for the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>The wintering report for the 2019/2020 season notes that these birds were frequenting the dock area of the Europort. The 2020/2021 and 2021/2022 reporting does not indicate the species making use of any specific locations within the survey section.</p> <p>The disturbance of black headed gulls from the zone of impact has the potential to result in a decrease in the number and range of areas used by the species</p>	Disturbance to the <i>ex situ</i> black-headed gull population would constitute a negative effect on site's integrity .

Table 7-10 Assessment of Potential for Adverse Effects on the Site Integrity – Black-tailed Godwit

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Black-tailed godwit were recorded in wintering season 2019/2020 (peak count 53) and wintering season 2021/2022 (peak count 5).</p> <p>As previously outlined the area within the Zol for noise disturbance does not fall within any European site boundaries and does not constitute principal supporting habitat for the species. As such, the disturbance from the Zol will not result in a decrease of the long term population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>Black-tailed godwit were recorded in wintering season 2019/2020 (peak count 53) and wintering season 2021/2022 (peak count 5). The record of 5 black-tailed godwit was recorded on a single survey.</p> <p>The lack of consistent records of the species indicates that the Zol is not utilised regularly by the species. As such, the disturbance from the Zol will not result in a significant decrease in the number or range of areas used by the species.</p>	Disturbance to <i>ex situ</i> black-tailed godwit constitute a negative effect on site's integrity .

Table 7-11 Assessment of Potential for Adverse Effects on the Site Integrity - Cormorant (*Phalacrocorax carbo*) [A017]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Cormorant were recorded in all three survey seasons with a peak count of 30. The survey reporting did not indicate specific locations which were utilised by the species within the survey area, however it is likely the coastal waters and shoreline area.</p> <p>The supporting document for the site-specific conservation document notes that the principal supporting habitat within the site for Cormorant is sheltered and shallow subtidal over sand and mud flats. The habitat within the Zol or the works does not therefore correspond to principal supporting habitat for the species.</p> <p>As such, the disturbance of the species from the area will not constitute a long-term decrease in population levels for the site.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>Cormorant were recorded in all three survey seasons with a peak count of 30. Neither survey report indicated specific locations utilised by the species within the survey area, however it is likely the coastal waters and shoreline area.</p> <p>The disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	Disturbance to the <i>ex situ</i> cormorant would constitute a negative effect on site's integrity .

Table 7-12 Assessment of Potential for Adverse Effects on the Site Integrity - Curlew (*Numenius arquata*) [A160]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Curlew were recorded in all three wintering seasons. The peak count for the species was 77 individuals in the 2019/2020 season, with the survey noting that the curlew were utilising the shoreline and arable field which the alignment extends into. Similar results were returned in 2020/2021 with a peak count of 75.</p> <p>As previously outlined the area within the Zol for noise disturbance does not fall within any European site boundaries and does not constitute principal supporting habitat for the species.</p> <p>As such, the disturbance from the Zol will not result in a decrease of the long term population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>Curlew were recorded in all three wintering seasons within the Zol for the works.</p> <p>The disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	Disturbance to the <i>ex situ</i> curlew would constitute a negative effect on site's integrity .

Table 7-13 Assessment of Potential for Adverse Effects on the Site Integrity -Great crested grebe (*Podiceps cristatus*) [A005]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Low numbers (peak count 4) of great crested grebe were recorded during wintering seasons.</p> <p>The disturbance of such numbers of great crested grebe from the ZOI does not have the potential to cause impacts to the long-term population trend for the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, low numbers (peak count 3) of great crested grebe were recorded in both the 2019/2020 and 2020/2021 survey season.</p> <p>The disturbance associated with the Proposed Development has the potential to disturb the species where it occurs within the ZOI of the works.</p> <p>However, the temporary disturbance of low number of the species away from the works area does not have potential to result in a significant reduction in the numbers of range of areas used by great crested grebe.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-14 Assessment of Potential for Adverse Effects on the Site Integrity - Grey heron (*Ardea cinerea*) [A028]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Grey heron (peak count 4) were recorded during the 2019/2020 and 2021/2022 wintering bird seasons. The survey section surrounding Rosslare Harbour was not identified as being of note in relation to the species.</p> <p>The disturbance of grey heron from the zone of impact does not have the potential to result in a long-term population trend decrease.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>Grey herons have a very widespread winter distribution, and their principal foraging habitat within the SPA is noted as being widespread, intertidal, and channels of North and South Slobs (NPWS 2011).</p> <p>The disturbance associated with the Proposed Development has the potential to disturb the species where it occurs within the Zol of the works. However, the temporary disturbance of low number of the species away from the works area does not have potential to result in a significant reduction in the numbers of range of areas used by grey heron.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-15 Assessment of Potential for Adverse Effects on the Site Integrity - Lapwing (*Vanellus vanellus*) [A142]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Lapwing were recorded in 2019/2020 wintering bird season (peak count 151), the 2020/2021 wintering bird season (peak count 70) and the 2021/2022 wintering bird season (peak count 150).</p> <p>As previously outlined the area within the Zol for noise disturbance does not fall within any European site boundaries and does not constitute principal supporting habitat for the species.</p> <p>As such, the disturbance from the Zol will not result in a decrease of the long term population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, lapwing were recorded within the Zol of the works in both the 2019/2020 and 2020/2021 survey season.</p> <p>The disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	Disturbance to <i>ex situ</i> lapwing constitute a negative effect on site's integrity .

Table 7-16 Assessment of Potential for Adverse Effects on the Site Integrity - Lesser black-backed gull (*Larus fuscus*) [A183]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Lesser black backed gulls were recorded within the Zol of the proposed development during the 2019/2020 wintering bird season (peak count 1), and the 2021/2022 wintering bird season (peak count 35). The peak count of 35 was an isolated observation and all other counts of the species were low (counts of 1 and 2 individuals).</p> <p>As such, the disturbance of low numbers of the species from the Zol does not have potential to result in a long term reduction in population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, lesser black backed gulls were recorded within the Zol of the proposed development.</p> <p>Th disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-17 Assessment of Potential for Adverse Effects on the Site Integrity - Light-bellied brent goose (*Branta bernicla hrota*) [A046]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>A relatively small number of Brent geese were recorded within the Zol of the proposed development in the 2019/2020 wintering season (peak count 9), and the 2021/2022 wintering season (peak count 35). The record of brent geese in the 2021/2022 wintering season was isolated and consisted of a flock of birds flying over the proposed development.</p> <p>This indicates that the Zol of the works is not used regularly in significant numbers by the species.</p> <p>The disturbance of the small number of geese from the Zol of the works does not have potential to result in long term reductions in population trends.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, the numbers of Brent geese recorded within the Zol occurred in small numbers, with the exception of a flock flying over the survey section.</p> <p>The disturbance of such low numbers from the Zol does not have potential to result in a significant reduction in numbers or range of areas used by the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-18 Assessment of Potential for Adverse Effects on the Site Integrity - Oystercatcher (*Haematopus ostralegus*) [A130]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	Oystercatcher were recorded within the Zol of the proposed development (peak count 7). The species was recorded all three wintering bird seasons. The disturbance of the small number of oyster catcher from the Zol of the works does not have potential to result in long term reductions in population trends.	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	As previously noted, the numbers of oystercatcher recorded within the Zol occurred in small numbers. The disturbance of such low numbers from the Zol does not have potential to result in a significant reduction in numbers or range of areas used by the species.	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-19 Assessment of Potential for Adverse Effects on the Site Integrity - Red-breasted merganser (*Mergus serrator*) [A069]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>A notable number of red-breasted merganser (peak count 6, constituting 24% of the figure of national significance) were during the wintering bird surveys. The species was recorded in all three wintering seasons.</p> <p>Red breasted merganser is associated with the coastal habitats to the north of the proposed development.</p> <p>As such, the temporary disturbance of the species from the Zol of the Proposed Development does not have the potential to cause a long-term reduction in the population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	While the disturbance from the Zol does not have the potential for a reduction in the long-term population trends, the disturbance has the potential to reduce the number and range of areas utilised by the species.	Disturbance to <i>ex situ</i> red breasted merganser constitute a negative effect on site's integrity .

Table 7-20 Assessment of Potential for Adverse Effects on the Site Integrity - Redshank (*Tringa totanus*) [A162]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Redshank were recorded within the Zol of the proposed development during the 2019/2020 wintering season (peak count 5) and the 2021/2022 wintering season (peak count 1).</p> <p>The disturbance of the small number of redshank from the Zol of the works does not have potential to result in long term reductions in population trends.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, the numbers of redshank recorded were relatively low.</p> <p>The disturbance of low numbers from the Zol does not have potential to result in a significant reduction in numbers or range of areas used by the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-21 Assessment of Potential for Adverse Effects on the Site Integrity - Mallard (*Anas platyrhynchos*)

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	A single mallard was recorded during the 2021/2022 wintering bird season. The disturbance of the small number of mallard from the Zol of the works does not have potential to result in long term reductions in population trends.	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	As previously noted, the numbers of mallard recorded were relatively low. The disturbance of low numbers from the Zol does not have potential to result in a significant reduction in numbers or range of areas used by the species.	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-22 Assessment of Potential for Adverse Effects on the Site Integrity - Wetland and waterbirds [A999]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Wetland habitat area	Hectares	The permanent area occupied by the wetland habitat (see map 3) should be stable and not significantly less than the area of 4,241ha, other than that due to natural patterns of variation	As previously noted, there is potential for degradation to wetland habitat associated with the SPA through surface water emissions. However, no reduction in wetland area will occur	No potential for Adverse Effects on Site Integrity have been identified.

7.4 Lady's Island Lake SPA (004009)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Lady's Island Lake SPA due to indirect impacts associated with the proposed development as follows:

Impacts to the following SCIs:

- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Sandwich Tern (*Sterna sandvicensis*) [A191]
- Common Tern (*Sterna hirundo*) [A193]

No site-specific conservation objectives are available for Lady's Island SPA. An assessment was made using specific conservation objectives set out for other SPA sites.

Table 7-23 Assessment of Potential for Adverse Effects on the Site Integrity - Black-headed gull (*Chroicocephalus ridibundus*) [A179]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Black headed gull were recorded within the zone of influence surrounding the proposed development (peak count 49). The species was recorded in all three wintering bird seasons.</p> <p>There is potential for disturbance effects associated with the construction and operational phase of the Proposed Development.</p> <p>The wintering bird survey reports do not indicate that the habitats within the ZoI are key foraging habitats for the species. As such, the disturbance from such an area does not have potential to result in a decline in the population trend for the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>The wintering report for the 2019/2020 season notes that these birds were frequenting the dock area of the Europort. The 2020/2021 and 2021/2022 reporting does not indicate the species making use of any specific locations within the survey section.</p> <p>The disturbance of black headed gulls from the zone of impact has the potential to result in a decrease in the number and range of areas used by the species</p>	Disturbance to the <i>ex situ</i> black-headed gull population would constitute a negative effect on site's integrity .

Table 7-24 Assessment of Potential for Adverse Effects on the Site Integrity - Sandwich Tern (*Sterna sandvicensis*) [A191]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	As outlined previously, sandwich tern were recorded in low numbers during the 2019/2020 season (peak count 2) and the 2021/2022 season (peak count 6). The disturbance of such low numbers of sandwich terns from the Zol of the proposed development does not have potential to cause a long-term changes in the population trend for the species.	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	The Zol of the proposed development was not identified as a significant area utilised by sandwich terns. This is evident in the low numbers of the species encountered during the wintering bird surveys. As such, the disturbance of sandwich tern from the Zol of the proposed development does not have the potential to cause a significant decrease in the numbers or range of the species.	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-25 Assessment of Potential for Adverse Effects on the Site Integrity - Common Tern (*Sterna hirundo*) [A191]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	As outlined previously, common tern were recorded during the 2019/2020 season in low numbers (peak count 4). The species was not recorded in the 2020/2021 wintering bird season.	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	The wintering bird surveys did not indicate that common tern were utilising the habitats within the ZoI of the proposed development regularly or in great numbers (peak count 4 recorded in one survey season). As such, the disturbance of common tern from the ZoI will not constitute a significant decrease in the numbers or range of areas used by the species.	No potential for Adverse Effects on Site Integrity have been identified.

7.5 The Raven SPA (004019)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Raven SPA due to indirect impacts associated with the proposed development as follows:

Impacts to the following SCIs:

- Red-throated diver (*Gavia stellata*) [A001]
- Cormorant (*Phalacrocorax carbo*) [A017]
- Common scoter (*Melanitta nigra*) [A065]

Site Specific Conservation Objectives have been developed for the Raven SPA. An assessment of the potential for adverse effects on the integrity of the Raven SPA is presented hereunder

Table 7-26 Assessment of Potential for Adverse Effects on the Site Integrity - Red-throated Diver (*Gavia stellata*) [A001]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Red throated diver were recorded in the 2019/2020 wintering season survey with a peak count of two, and the 2021/2022 wintering season with a peak count of ten. Red throated diver are associated with the coastal habitats to the north of the proposed development.</p> <p>As such, the disturbance of red throated diver from the ZoI does not have potential to result in a long-term reduction in the population trend for the species.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	Red throated diver are sensitive to disturbance effects. However, given that their habitat associations are with costal habitats to the north of the proposed development, the temporary disturbance of the species from the ZoI of the works area does not have potential to result in a significant decrease in the usage of areas by the species.	No potential for Adverse Effects on Site Integrity have been identified.

Table 7-27 Assessment of Potential for Adverse Effects on the Site Integrity - Cormorant (*Phalacrocorax carbo*) [A017]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Cormorant were recorded in all three survey seasons with a peak count of 30. The survey reporting did not indicate specific locations which were utilised by the species within the survey area, however it is likely the coastal waters and shoreline area.</p> <p>The principal supporting habitat for Cormorant is sheltered and shallow subtidal over sand and mud flats. The habitat within the Zol of the works does not therefore correspond to principal supporting habitat for the species.</p> <p>As such, the disturbance of the species from the Zol of the proposed development will not result in a long-term decrease in population levels for the site.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>Cormorant were recorded in all three survey seasons with a peak count of 30. Neither survey report indicated specific locations utilised by the species within the survey area, however it is likely the coastal waters and shoreline area.</p> <p>The disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	Disturbance to <i>ex situ</i> cormorant constitute a negative effect on site's integrity .

Table 7-28 Assessment of Potential for Adverse Effects on the Site Integrity – Common Scoter (*Melanitta nigra*) [A065]

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	Common scoter were recorded in the wintering bird survey during the 2020/2021 season with a peak count of 35. Given the low numbers involved and abundant alternative habitat no risks to populations are likely.	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, common scoter were recorded irregularly in coastal waters during the 2020/2021 wintering season with a peak count of 35, and the 2021/2022 wintering season with a peak count of 50.</p> <p>Given this is a relatively sensitive species to disturbance, construction phase noise disturbance may result in this species not using this area.</p> <p>While the operational phase will result in localised increases in noise levels, the design of the scheme is such that where the scheme approaches the coast, the road is in an area of cut.</p> <p>This design will significantly reduce noise and visibility of traffic to common scoter such that no significant disturbance effects that may result in a reduction in the numbers or range of areas used by the species is anticipated.</p>	Disturbance effects at construction phase to <i>ex situ</i> constitute a negative effect on site's integrity .

7.6 Tacumshin Lake SPA (004092)

It has been determined through desk-based assessment and ecological field surveys that the proposed development is likely to impact the qualifying interests of the Tacumshin Lake SPA due to indirect impacts associated with the proposed development as follows:

Impacts to the following SCIs:

- Lapwing (*Vanellus vanellus*) [A142]
- Black-tailed Godwit (*Limosa limosa*) [A156]

No Site Specific Conservation Objectives have been developed for the Raven SPA. As such, an assessment of the potential for adverse effects on the integrity of the is presented hereunder based on Conservation Objectives available for other sites with the same SCI Species.

Table 7-29 Assessment of Potential for Adverse Effects on the Site Integrity – Lapwing (*Vanellus vanellus*)

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Lapwing were recorded in 2019/2020 wintering bird season (peak count 151), the 2020/2021 wintering bird season (peak count 70) and the 2021/2022 wintering bird season (peak count 150).</p> <p>As previously outlined the area within the Zol for noise disturbance does not fall within any European site boundaries and does not constitute principal supporting habitat for the species.</p> <p>As such, the disturbance from the Zol will not result in a decrease of the long term population trend.</p>	No potential for Adverse Effects on Site Integrity have been identified.
Distribution	Number and range of areas used by waterbirds	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation	<p>As previously noted, lapwing were recorded within the Zol of the works in both the 2019/2020 and 2020/2021 survey season.</p> <p>The disturbance associated with the Proposed Development has the potential to reduce the number and range of areas utilised by the species.</p>	Disturbance to <i>ex situ</i> lapwing constitute a negative effect on site's integrity .

Table 7-30 Assessment of Potential for Adverse Effects on the Site Integrity – Black-tailed Godwit

Attribute	Measures	Targets	Potential Impact	Potential for Adverse Effects on Site Integrity
Population trend	Percentage change	Long term population trend stable or increasing	<p>Black-tailed godwit were recorded in wintering season 2019/2020 (peak count 53) and wintering season 2021/2022 (peak count 5).</p> <p>As previously outlined the area within the Zol for noise disturbance does not fall within any European site boundaries and does not constitute principal supporting habitat for the species. As such, the disturbance from the Zol will not result in a decrease of the long term population trend.</p>	<p>No potential for Adverse Effects on Site Integrity have been identified.</p>
Distribution	Number and range of areas used by waterbirds	<p>There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation</p>	<p>Black-tailed godwit were recorded in wintering season 2019/2020 (peak count 53) and wintering season 2021/2022 (peak count 5). The record of 5 black-tailed godwit was recorded on a single survey.</p> <p>The lack of consistent records of the species indicates that the Zol is not utilised regularly by the species. As such, the disturbance from the Zol will not result in a significant decrease in the number or range of areas used by the species.</p>	<p>Disturbance to <i>ex situ</i> black-tailed godwit constitute a negative effect on site's integrity.</p>

8 Mitigation

8.1 Overview

Mitigation is prescribed in accordance with the Environmental Protection Agency draft guidance on EIAR (EPA, 2017) which requires mitigation by avoidance as a first approach. Where this is not feasible, measures to prevent impacts from giving rise to adverse effects should be adopted (e.g. design of bunded storage for chemicals). Where impacts cannot be avoided e.g. generation of noise and visual disturbance; mitigation by reduction of impact is required to limit the exposure of the receptor to an acceptable level (often achieved by interrupting the pathway between the source and receptor).

Potential project-related impacts likely to negatively affect the site integrity European sites (in the absence of mitigation) are summarised below in Table 8.1.

Table 8-1: Summary of Potential Impacts

European Site	Qualifying Interest / Special Conservation Interest impacted	Adverse Effect Identified Through
Slaney River Valley SAC	Mudflat and sandflat habitat	Surface water emissions
	Sea lamprey	
	River lamprey	
	Twaite shad	
	Salmon	
	Otter	
	Harbour seal	
Wexford Harbour and Slobs SPA	Black-headed gull	Disturbance through noise emissions
	Black-tailed godwit	
	Cormorant	
	Curlew	
	Lapwing	
	Red-breasted merganser	
Ladys Island Lake SPA	Black-headed Gull	Disturbance through noise emissions
The Raven SPA	Cormorant	Disturbance through noise emissions
	Common Scoter	
Tacumshin Lake SPA	Lapwing	Disturbance through noise emissions
	Black-tailed godwit	

Mitigation is prescribed hereunder to address the impacts such that adverse effects on site integrity of the European site does not occur.

Mitigation measures are set out in accordance with the European Commission guidance on the '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, (2001). Mitigation is described with respect to:

- How the measures will avoid / prevent / reduce the adverse impacts on the site to an acceptable level
- The degree of confidence in their likely success
- The timescale, relative to the project, when they will be implemented
- How and when the measures will be monitored.

All mitigation prescribed in this NIS must be implemented by the appointed Contractor for the works to ensure that there are no adverse effects on the integrity of the European Site. The proposed mitigation measures will be incorporated into a Construction Environmental Management Plan for the contractor in advance of the works commencing.

8.1.1 Mitigation Against Water Quality Impacts to Surface Water

The principle likely pollution sources from construction activities are from water crossings associated with the road route. Other sources are contaminated site run-off, including silty water arising from exposed ground / stockpiles / and from accidental leaks / spills of oil / fuels from machinery or storage areas, and run off from areas where concrete pours are taking place.

Mitigation measures to avoid / prevent contaminated runoff and pollution from site are prescribed in below.

Table 8-2: Mitigation against surface water pollution

Measure	How the measures will avoid / prevent / reduce impacts	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
Construction Phase					
<p>At a minimum, all pollution control measures will be designed, installed, and maintained in accordance with measures outlined below and under the supervision of the Contractor's Environmental Clerk of Works (EnCoW).</p> <p>Concrete</p> <p>The pouring of concrete will be required during the construction phase. To prevent the runoff of concrete into nearby drains, the following will be implemented.</p> <ul style="list-style-type: none"> • No on-site batching will be permitted at the proposed works areas. Concrete will instead be transported to the site within a concrete truck. • Quick setting concrete mixes will be used to reduce the risk of contaminated run-off to the nearby watercourses. • Concrete trucks will be washed down in a sealed mortar bin / skip which has been examined in advance for any defects. This requirement will be communicated to each concrete truck driver prior to entering into the works area. 	<p>Measures will prevent the uncontrolled releases of pollutants into the environment during the construction phase.</p>	<p>Measures prescribed as best practice and are proven technologies / methods.</p>	<p>Pollution prevention measures will need to be in place before the enabling and construction works commence.</p>	<p>The Contractor's EnCoW will carry out ongoing monitoring of all pollution control measures.</p>	<p>Measures will prevent and/or remedy the uncontrolled releases of pollutants into the environment.</p>
Hydrocarbons					
<p>Where mobile equipment is required e.g. generators, these will be housed in a suitably sized bund / plant nappy such that any leaks / spills are intercepted. All mobile equipment used will be stored within a plant nappy. Operators will regularly inspect the plant nappy, at a minimum on a daily basis, and replace it where it has become contaminated.</p> <p>Fuelling and lubrication of plant and equipment will be restricted to the construction compound sites, or laydown areas. No refuelling will be permitted to occur within 50m of any watercourse or drainage ditch.</p>					

Measure	How the measures will avoid / prevent / reduce impacts	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
Construction Phase					
<p>All waste fuels, oils, and other hazardous wastes will be disposed of in accordance with the requirements of waste legislation.</p> <p>Spill-kits and hydrocarbon absorbent packs will be stored in the cabin of each vehicle and operators will be fully trained during induction to site by the EnCoW in the use of this equipment.</p> <p>Should use of a spill-kit be required it shall be immediately re-stocked.</p> <p>All spill-kits shall be inspected on a weekly basis by the SHEQ officer to ensure they are maintained as fit for purpose. Records relating to these inspections shall be kept.</p> <p>Welfare / hygiene facilities will be located within the construction compounds.</p> <p>All water from wheel washes will be removed from site and disposed of in line with Waste Legislation. No wheel wash water will be discharged into any watercourses or drainage ditches.</p>					
Operational Phase					
<p>There is potential for the run-off of surface-water pollutants to enter into nearby drainage ditches.</p> <p>Three ponds plus one storage tank will be constructed and used to collect runoff pollutants during the operational phase</p> <p>The storage ponds collect runoff pollutants such as petroleum products from roadways, fertilisers from lawns and fields, sediments, bacteria, suspended solids, and</p>	<p>Measures will prevent the uncontrolled releases of pollutants into the environment during the operational phase.</p>	<p>Measures prescribed as best practice and are proven technologies / methods.</p>	<p>Pollution prevention measures will be installed during the construction phase prior to the road becoming operational</p>	<p>None</p>	<p>Measures will prevent and/or remedy the uncontrolled releases of pollutants into the environment during the operational phase.</p>

Measure	How the measures will avoid / prevent / reduce impacts	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
Construction Phase					
metals and allow them to settle out of the water and also get used up through biological processes. Petrol interceptors will be installed at discharge points, and prior to the attenuation ponds to intercept and safely dispose of any hydrocarbon pollutants that may otherwise escape into watercourses.					

8.1.2 Mitigation Against Disturbance to Wintering Birds

The principle likely disturbance from construction activities are from works within or in close proximity to the coastline. Mitigation measures to avoid / prevent noise disturbance from works associated with the development are prescribed in below.

Table 8-3: Mitigation Against Disturbance to Wintering Waterfowl

Measure	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
Construction Phase				
Prior to the commencement of the works, a sound / visibility reducing hoarding shall be placed along works areas adjacent to and within the arable field and coastline. This will help to reduce the noise and visual disturbance impacts associated with the construction phase of the works. <ul style="list-style-type: none"> The barrier material shall have a mass per unit area exceeding 7kg/m² in 	Measures prescribed as best practice and are proven technologies / methods.	Sound reduction hoarding will need to be in place before the construction works commence Implementation of plant specific noise reduction to take place on an ongoing basis.	The Contractor's Environmental Clerk of Works will carry out daily monitoring of noise reduction measures and monitoring of noise levels on a continuous basis during works.	Measures will ensure any adverse effects associated with noise disturbance are avoided.

Measure	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
<p>accordance with the recommendations of BS 5228 Part 1:2009+A1:2014 Part B.4.</p> <ul style="list-style-type: none"> ● All plant used during the construction phase shall be the quietest of its type practical for achieving the works, as demonstrated in writing by the Contractor to the local authority, with reference to other noisier models. ● All plant shall be operated and maintained in accordance with the manufacturer's recommendations including the use and maintenance of the specific noise reduction measures in the next bullet. ● The following will be incorporated to reduce the impact further: <ul style="list-style-type: none"> – The use of mufflers on pneumatic tools – Effective exhaust silencers – Sound reducing enclosures – Machines in intermittent use shall be shut down during periods where they are not required 				
Operational Phase				
<ul style="list-style-type: none"> ● The design of the road means areas (coastal field and marine) utilised by wintering wildfowl possibly associated with SPA sites, are not impacted significantly by the road. Wintering wildfowl will continue to forage in the coastal zone noting more sensitive species such as common scoter use the marine environment well offshore from the proposed development and 				

Measure	Confidence in the likely success of the measure	Timescale for Implementation	Monitoring requirements	How the measures will avoid / prevent / reduce impacts
<p>have adapted to ongoing boat traffic associated with the port. The design of the coastal cutting reduces visibility of traffic in part to marine birds/ mammals. The restricted speed of trucks/ traffic as they approach the port along the coastal stretch, will ensure noise levels are minimised. Water fowl and waders typically adapt to the presence of traffic adjacent to areas they use, without adverse effects, as observed in other coastal SPA's adjacent to busy ports for example Dublin Port.</p>				

9 Conclusion

With respect to European Sites within the Zone of Interest associated with the proposed development, this NIS has examined in light of the best scientific knowledge, the potential impact sources and pathways and how these could impact on the Sites' Qualifying Interests and whether the predicted impacts would adversely affect the integrity of the European sites.

The mitigation measures detailed in this NIS will ensure no adverse effects on the integrity of any European sites in light of the site's conservation objectives.

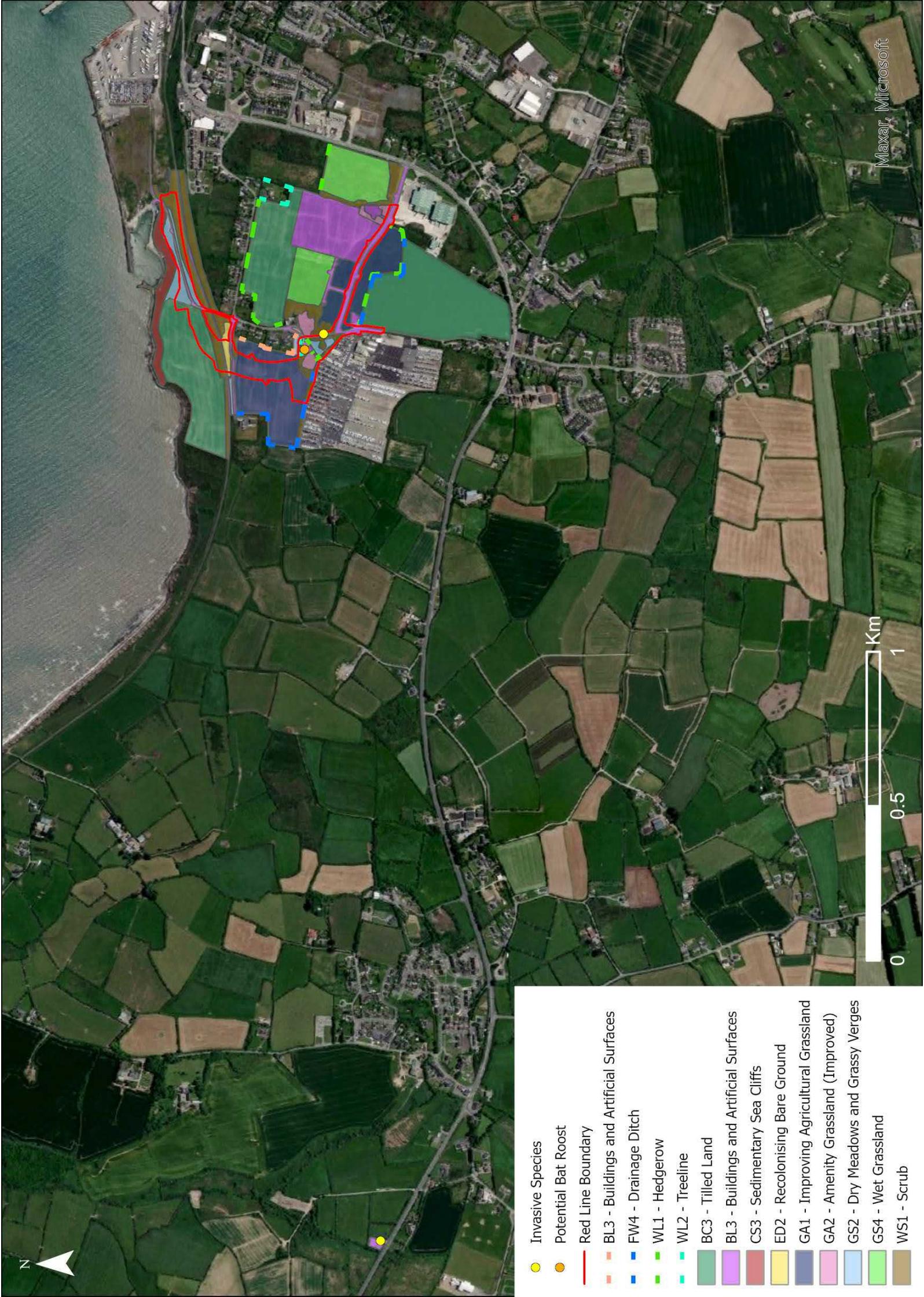
Based on the assessment of the Proposed Development alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the integrity of any European sites will arise (directly or indirectly), in view of the site's conservation objectives.

10 References

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Appendices

Appendix A - Habitat Map



- Invasive Species
- Potential Bat Roost
- Red Line Boundary
- BL3 - Buildings and Artificial Surfaces
- FW4 - Drainage Ditch
- WL1 - Hedgerow
- WL2 - Treeline
- BC3 - Tilled Land
- BL3 - Buildings and Artificial Surfaces
- CS3 - Sedimentary Sea Cliffs
- ED2 - Recolonising Bare Ground
- GA1 - Improving Agricultural Grassland
- GA2 - Amenity Grassland (Improved)
- GS2 - Dry Meadows and Grassy Verges
- GS4 - Wet Grassland
- WS1 - Scrub

