Screening Report for Appropriate Assessment

Saint Pauls to Ballykeeffe Roundabout Active Travel Scheme

MEC Ltd.

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Saint Pauls to Ballykeeffe Roundabout Active Travel Scheme, Limerick

This report has been prepared by Minogue Environmental Consultants Ltd. with all reasonable skill, care and diligence. Information report herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is prepared for the Limerick City & County Council and we accept no responsibility to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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1. INTRODUCTION

Minogue Environmental Consulting Ltd. have been commissioned by the Limerick City and County Council (LCCC) to undertake a Screening Report for Appropriate Assessment for proposed cycling facilities on the R526, Limerick City. The Project title is the Saint Pauls to Ballykeeffe Roundabout Active Travel Scheme.

This Screening Report for Appropriate Assessment forms Stage 1 of the Habitats Directive Assessment process and is being undertaken in order to comply with the requirements of the Habitats Directive Article 6(3). The function of this Screening Report is to determine if it can or cannot be excluded, on the basis of objective information, that the project, individually or in combination with other plans or projects, will have a significant effect on a European Site. This Screening Report has been prepared to provide information to the competent authority to assist them in their determination as to whether a Stage 2 Appropriate Assessment is required for the project.

1.1 LEGISLATIVE CONTEXT

This Screening Report for Appropriate Assessment is being prepared in order to enable the competent authority to comply with Article 6(3) of Council Directive 92/43/EEC (The Habitats Directive). It is prepared to assess whether or not the project alone or in combination with other plans and projects is likely to have a significant effect on any European Site in view of best scientific knowledge and in view of the conservation objectives of the European Sites and specifically on the habitats and species for which the sites have been designated.

1.1.1 REQUIREMENT FOR AN ASSESSMENT UNDER ARTICLE 6 OF THE HABITATS DIRECTIVE

According to Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations Ss.177U and 177V in Part XAB of the Planning and Development Act 20002011 – 2021, the competent authority has a duty to:

- Determine whether the Project is directly connected to or necessary for the management of one of more Natura 2000 sites; and, if not;

- Determine if the Project, either individually or in combination with other plans or projects, would be likely to have a significant effect on the European Site(s) in view of best scientific knowledge and the Conservation Objectives of the site(s).

This Report contains a Screening for Appropriate Assessment and is intended to assess and address all issues regarding the construction and operation of the Project and to inform and assist the competent authority to comply with the Habitats Directive (as already defined). The European Communities (Birds and Natural Habitats) Regulations, 2011 – 2021 (the Habitats Regulations) transpose into Irish law Directive 2009/147/EC (the Birds Directive) and Council Directive 92/43/EEC (the Habitats Directive) lists habitats and species that are of international importance for conservation and require protection. The Habitats legislation requires competent authorities, to carry out a Screening for Appropriate Assessment of plans and projects that, alone or in combination with other plans or projects, would be likely to have significant effects on Natura 2000 sites in view of best scientific knowledge and the Site's conservation objectives. This requirement is transposed into Irish Law by Part 5 of the Habitats Regulations and Part XAB of the Planning and Development Act, 2000 (as amended).

1.1.2 STAGE 1 SCREENING METHOD

The purpose of a Stage 1 screening exercise for Appropriate Assessment is to determine whether it is necessary to carry out a Stage 2 Appropriate Assessment of the implications for a European site of a project. The trigger

for the requirement for an Appropriate Assessment is that the project, either individually or in combination with other plans or projects, is "likely to have a significant effect" on the European site.

It is clear that the trigger for an Appropriate Assessment is a very light one, and that the mere probability or a risk that a project might have a significant effect is sufficient to require an Appropriate Assessment to be undertaken. Under Part XAB of the 2000 Act, screening for Appropriate Assessment must be carried out by the competent authority.

Section 177U provides:

A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if… a proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

Accordingly, the competent authority shall determine that an Appropriate Assessment of a proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site. The competent authority's determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and must be recorded.

Whereupon the carrying out of a Stage One screening, it is determined by the competent authority that a Stage Two Appropriate Assessment is required, an applicant for permission must prepare and submit a Natura Impact Statement to the competent authority.

This Article 6(3) Appropriate Assessment Screening Report has been prepared in compliance with the provisions of section 177U of the 2000 Act.

The nature of the likely interactions between a project and the Conservation Objectives of European Sites will depend upon the:

- the ecological characteristics of the species or habitat, including their structure, function, conservation status and sensitivity to change; *and/or*
- the character, magnitude, duration, consequences and probability of the impacts arising from land use activities associated with the plan, in combination with other plans and projects.

The European Commission Guidelines (2001) outline the stages involved in undertaking a Screening assessment of a plan or project that has the potential to have likely significant effects on European Sites. The methodology adopted for the screening of this project is informed by these guidelines, as well as the Irish guidance identified above, and was undertaken in the following stages:

- A brief description of the proposed SHD is provided and determine whether it is necessary for the conservation management of European Sites;
- Identification of European Sites occurring within the zone of influence of the proposed SHD;
- Identification of potential likely significant effects on European Sites; and
- Identification of other plans or projects that, in combination with the proposed SHD, have the potential to affect European Sites.

There is absolutely no reliance placed in this AASR on

(a) measures intended to avoid/reduce harmful effects on the European sites,

(b) construction management/best practice measures, or

(c) any other measures (such as SUDS) which are proposed with no relation to the *intention* of avoiding or reducing any potentially harmful effect of the development on any European site.

This Screening Report for Appropriate Assessment has been undertaken with reference to respective National and European guidance documents:

The following guidance documents were also of relevance during the preparation of this Screening Report:

- A guide for competent authorities. Environment and Heritage Service, Sept 2002. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2010). DEHLG.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats Directive 92/42/EEC. European Commission (2001).
- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2018).
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management (2021). Office of the Planning Regulator

The EC (2001) guidelines outline the stages involved in undertaking a Screening Report for Appropriate Assessment for projects. The methodology adopted during the preparation of this Screening Report is informed by these guidelines and was undertaken in the following stages:

1. Describe the project and determine whether it is necessary for the conservation management of European Sites;

2. Identify European Sites that could be influenced by the project;

3. Where European Sites are identified as occurring within the zone of influence of the project identify potential effects arising from the project and screen the potential for such effects to negatively affect European Sites identified under Point 2 above; and

4. Identify other plans or projects that, in combination with the project, have the potential to affect European Sites.

1.1.3 Statement of Authority

Ruth Minogue, BscSci, MA, MCIEEM prepared this AA Screening Report. Ruth has twenty four years' experience in the field of environmental assessment and has been involved in the completion of environmental and ecological impact assessments since 2002. She is a full member of the Chartered Institute of Ecology and Environmental Management, holds a diploma in Field Ecology (UCC), Advanced Diploma in Planning and Environmental Law (Kings Inn) and undertakes ongoing CDP training through approved training providers including CIEEM.

2 BACKGROUND TO THE PROJECT

The proposed scheme is located on the greater Raheen/Dooradoyle area (See Figure 2.1), which is a large residential area in the southwest of Limerick City, with a number of schools and employers in the location. The Crescent Shopping Centre is located off the R926 adjacent to the Ballykeeffe Roundabout and is adjacent to the Limerick City and County Council's County Hall building and library.

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2.1 PROJECT DESCRIPTION

The proposed scheme will provide high-quality cycling facilities on a section of the R526 St Nessans Road in the south Limerick environs. This area is c.600m in length, beginning at the southern end of the St. Nessans Road - Father Russell Road roundabout (Saint Pauls Roundabout), and commencing at the northern end next to Crescent Shopping Centre, north of Ballykeeffe Roundabout.

The provision of the cycling facilities will involve an upgrade of the current road corridor to better accommodate pedestrian, cycling and vehicular provisions. This will be achieved by re-construction of the existing footpaths, construction of cycle tracks and narrowing of the existing road carriageway between the Saint Pauls and Ballykeeffe Roundabouts. The segregated cycle facilities on both sides of the road will be separated from the road carriageway by a c.250mm wide upstand kerb.

The proposed scheme also includes for upgrade works to the Saint Pauls and Ballykeeffe Roundabouts. At Saint Pauls Roundabout it is proposed to provide a grass verge to the segregated cycle tracks on three quadrants of the roundabout with the cycle tracks separate to the footpaths. The outside diameter kerbing to the roundabout would be tightened to provide a buffer to cyclists and to act as a deterrent to high vehicular speeds. Two-way cycle tracks are proposed on two quadrants of the roundabout to link cyclists to/from Father Russell Road to the R526. The zebra crossings on the R526 would be replaced with toucan crossings which would include for bus detection and bus priority on the approach to the roundabout. The existing zebra crossing on Fr Russell Road would be re-constructed as a toucan crossing with improvements to the crossing on the Scoil Phoil Naofa arm of the roundabout.

Land acquisition is required at Sain Pauls Nursing Home to accommodate the proposed upgrade works at Saint Pauls Roundabout.

Similar upgrade works are proposed to Ballykeeffe Roundabout with a grass verge to be provided to the segregated cycle tracks. The outside diameter kerbing to the roundabout would be tightened to provide a buffer to cyclists and to act as a deterrent to high vehicular speeds. Two-way cycle tracks are proposed north of the roundabout on the R526 to link cyclists from the proposed South Circular Road two-way cycle track to a shared road in Ballykeeffe Estate and to the R926 and also to the Crescent Shopping Complex. The existing zebra crossing on the R526 would be replaced with a toucan crossing which would include for bus detection and bus priority on the outbound approach to the roundabout. Island bus stop arrangements would be constructed on the 607781 inbound stop and the 607501 outbound stop. A bus slip lane would be provided along the front of the inbound bus stop which would run to the controlled crossing. The inbound bus lane would be reinstated after the controlled crossing. West of the roundabout on the R526 it is proposed to add a new pedestrian crossing. The existing zebra crossings on the R926 Dooradoyle Road would be widened to provide for toucan crossings with new segregated cycle tracks on the east and west side of Dooradoyle Road.

2.1.1 DURATION OF WORKS

Works to the R526 and associated junctions at the Saint Pauls and Ballykeeffe Roundabouts will include for the construction of the segregated cycle facilities on both sides of the road separated from the road carriageway by a c.250mm wide upstand kerb. The scheme will also include modifications to the existing road and footpaths. Other elements to be delivered in conjunction with the above include junction improvements as required, works to bus lanes/stops, signals, pedestrian facilities with associated modification to drainage, line markings and signage etc. The works are to be carried out over a c.600m length of the existing roadway. It is estimated that the works will take up to 9 months to complete.

2.1.2 APPROACH TO WORKS.

It is likely that the works would be completed in phases to allow for access to existing properties and side roads and also to facilitate pedestrian access. The phasing would include for the completion of the footpath re-construction / cycle track construction on one side of the road and repairs to surfacing over half the roadway along with services works to allow for a lane reduction with two-way traffic maintained. Following the completion of one side of the road, works will be carried out on the opposite side to include footpath re-construction / cycle track construction repairs to surfacing along with services works on the remaining half of the road.

2.1.3 PLANT & CONSTRUCTION MATERIALS AND PERSONNEL REQUIRED

- 20 tonne excavator
- rubber tyred excavators, 6 tonne JCB
- tonne mini diggers
- 30 tonne dump truck
- 6 tonne dumpers
- 7.5 tonne multi-purpose truck
- 20 tonne and 30 tonne delivery trucks
- teleporter
- site vehicles
- compactor plates
- 6 tonne vibrating rollers
- paving machines
- bitumen boiler
- oil tanker/sprayer
- road planning machine
- road saws
- air compressors
- jack hammers
- traffic management signage, cones and barriers
- herras fencing
- road sweeper

The materials required for the works will be typical civil engineering road construction materials consisting of cement, gravels, aggregates, capping stone, block paviours, precast concrete kerbs, in-situ concrete kerbs and footpaths, precast concrete manholes, covers, plastic ducting, galvanised/cast iron chamber covers, powder coated street lighting columns and traffic signal poles, LED lighting and traffic signals, galvanised steel signage poles, metal traffic signs etc.

The site personnel would be approximately 20-30 persons.

The Contract Documents will include for the following standard construction guidance and guidelines.

The Contractor shall establish and implement, during the execution and completion of the Works, an Environmental Operating Plan consistent with and analogous to the NRA "Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan". All construction and operations shall be carried out in accordance with the Control of Water Pollution from Linear Construction Projects. Technical Guidance (C648) (CIRIA 2006), Control of Water Pollution from Linear Construction Projects, Site Guide (C649) (CIRIA 2006), and in accordance with Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (NRA, 2006).

FIGURE 2.1 LOCATION OF THE SITE

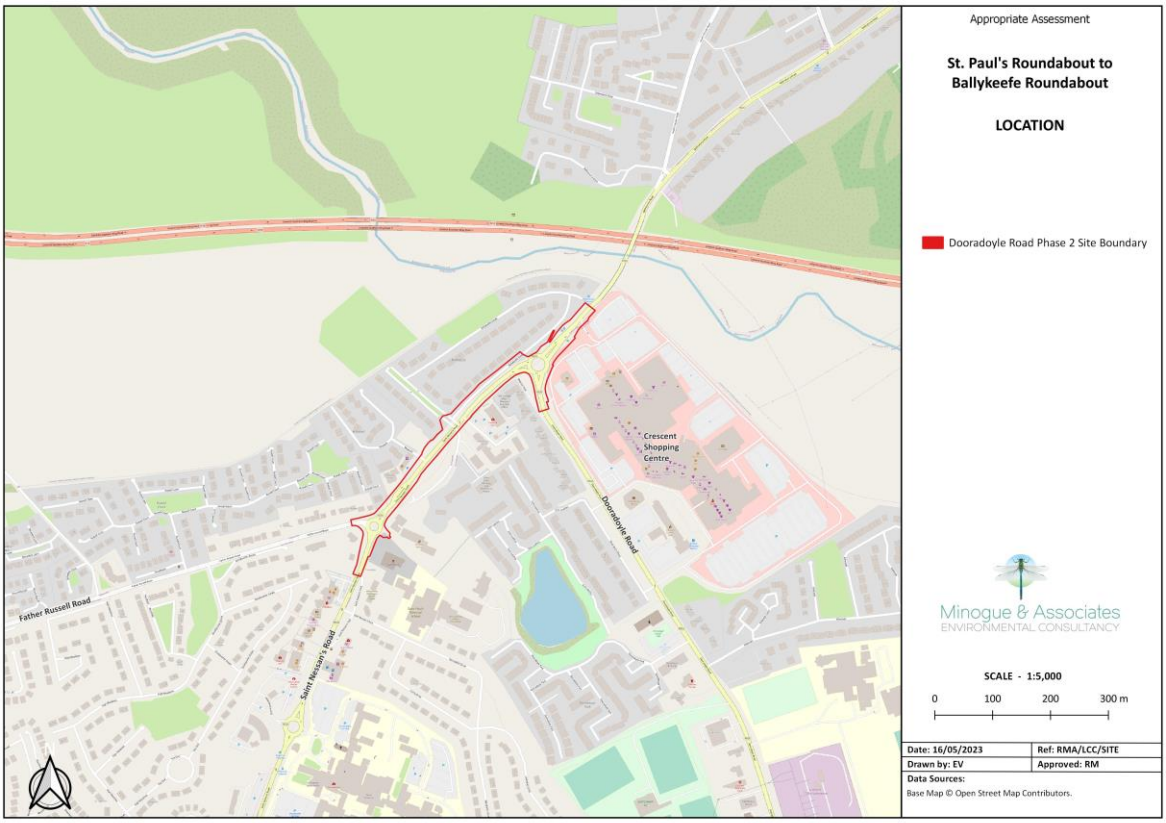


FIGURE 2-1 PROJECT SITE OVER AERIAL IMAGERY

2.2 Description of the Project Site

The habitats present on the immediate site are as follows: are reflective of the urban land-use and are classified as Built Land and Artificial Surfaces (BL3), with strip of amenity grassland and occasional semi-mature tree planting. The trees are located on the eastern and western side of the busy public road and are mainly of an early mature age class, with some semi-mature and young trees also present; they were planted as part of the landscaping of this area in the past. The species in this area include Norway maple (Acer platanoides), rowan (Sorbus aucuparia), sycamore (Acer psuedoplatanus), lime (Tilia spp.), hawthorn (Crataegus monogyna), Turkish hazel (Corylus colurna), Italian alder (Alnus cordata), hornbeam (Carpinus betulus), beech (Fagus sylvatica), ash (Fraxinus excelsior), field maple (Acer campestre), horse chestnut (Aesculus hippocastanum), birch (Betula spp.), oak (Quercus spp.), fastigiate elm (Ulmus × hollandica 'Fastigiata') and Japanese maple (Acer palmatum).

The project is located within the Shannon Estuary South (WFD code 24) and the Ballynaclough sub-catchment (SC 010).

The soil is classified as 'urban' and is underlain by Visean limestone bedrock. Groundwater vulnerability is classified as of moderate vulnerability.

2.3 Is the project necessary for the conservation management of European Sites?

The project has been described in Section 2.1 of the Screening Report and it is clear from the description provided that the project is not directly connected with or necessary for the future conservation management of any European Sites.

3 EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE PROJECT

Current guidance informing the approach to screening for Appropriate Assessment defines the zone of influence of a project as the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. It is recommended that this is established on a case-by-case basis using the Source-Pathway-Receptor (SPR) framework. The SPR framework is relied upon to identify pathways connecting the project to Natura 2000 sites and is relied upon during this screening exercise, particularly given the fact that no element of the project is located within the boundary of a Natura 2000 sites and the nearest site Lower River Shannon SAC, is located at a distance of approximately 289m north of the project site as the crow flies. The Ballinacurra Creek which flows into the River Shannon is the nearest surface water feature and is connected to the River Shannon via approximately 225m from the nearest point of the project site.

As a first step in identifying the Natura 2000 sites that could be connected to the project via SPR pathways all Natura 2000 sites occurring in the zone of influence of the project were identified. The zone of influence is defined as follows:

"*The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source Pathway-Receptor framework and not by arbitrary distances (such as 15 km*)".

As can be seen in Figures 3.1 and Figure 3.2 six Natura 2000 sites, comprising five SACs and one SPA occur within the wider area surrounding the project site. All other Natura 2000 sites are located at a remote distance from the project site. The qualifying features of interest/special conservation interests of these Natura 2000 sites are listed in full in Table 4.1 below. A summary overview of each of these Natura 2000 sites is provided in Appendix A.

As the nearest Natura 2000 sites (Lower River Shannon and River Shannon and River Fergus SPA) are located approximately 0.57km and 1.28 km away respectively, the project will not have the potential to result in direct impacts to Natura 2000 sites. Thus, this Screening exercise focuses on investigating whether it can or cannot be excluded, on the basis of objective information, that the project will have the potential to result in indirect effects to Natura 2000 sites beyond the boundaries of their designated conservation areas.

Using the SPR framework, the project as described in Section 2 of this Screening Report, represents the source of potential impacts to Natura 2000 sites.

The project site is located within the Shannon Estuary South catchment. Therefore, the potential for a connection between the project site and these European Sites requires further examination. All other European Sites are located at a remote distance from the project site and are not connected to it via any SPR pathways and such are excluded from further examination.

FIGURE 3-1 SACS WITHIN 15 KM FROM THE PROPOSED SITE

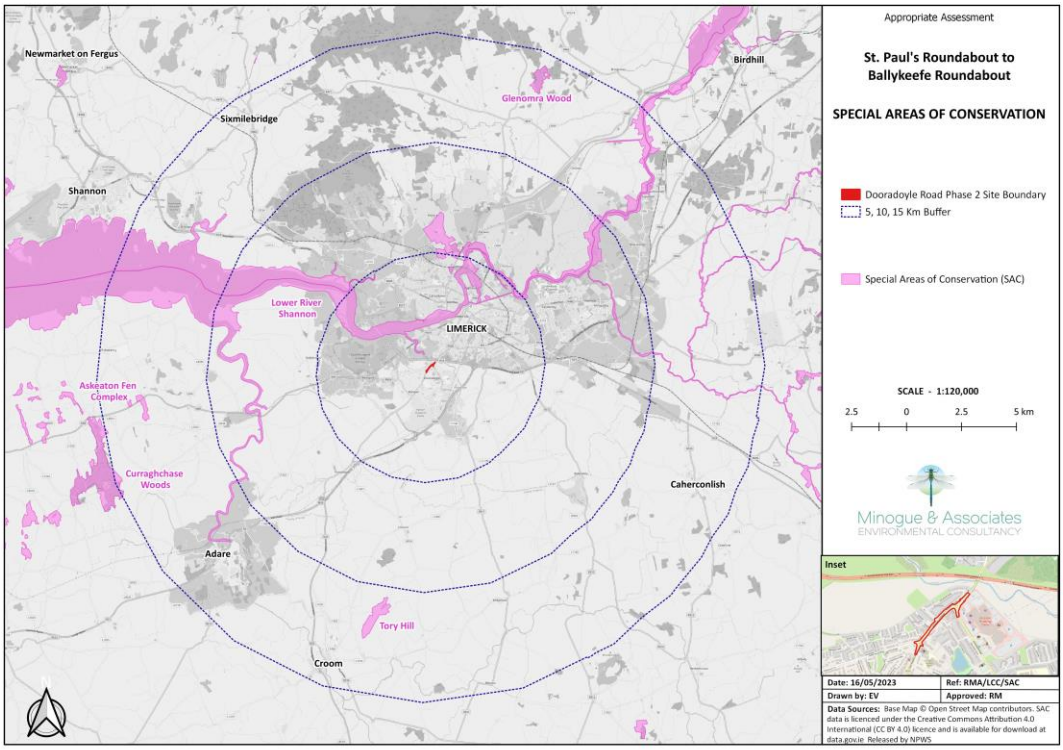
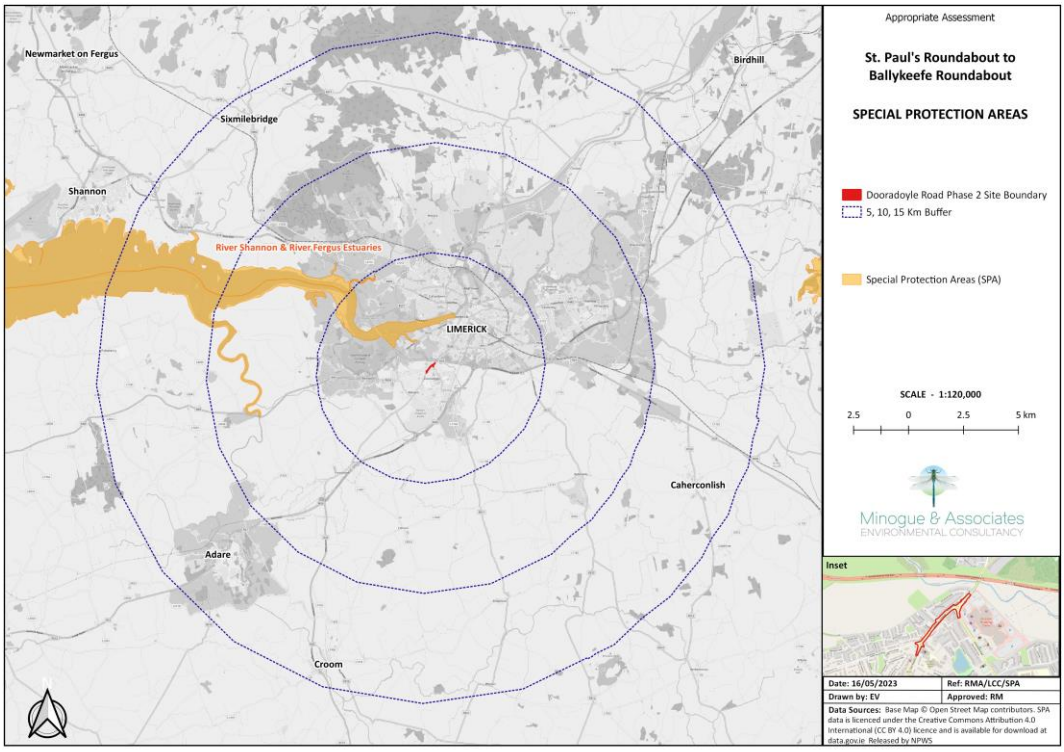


FIGURE 3-2 SPAS WITHIN 15 KM FROM THE PROPOSED SITE



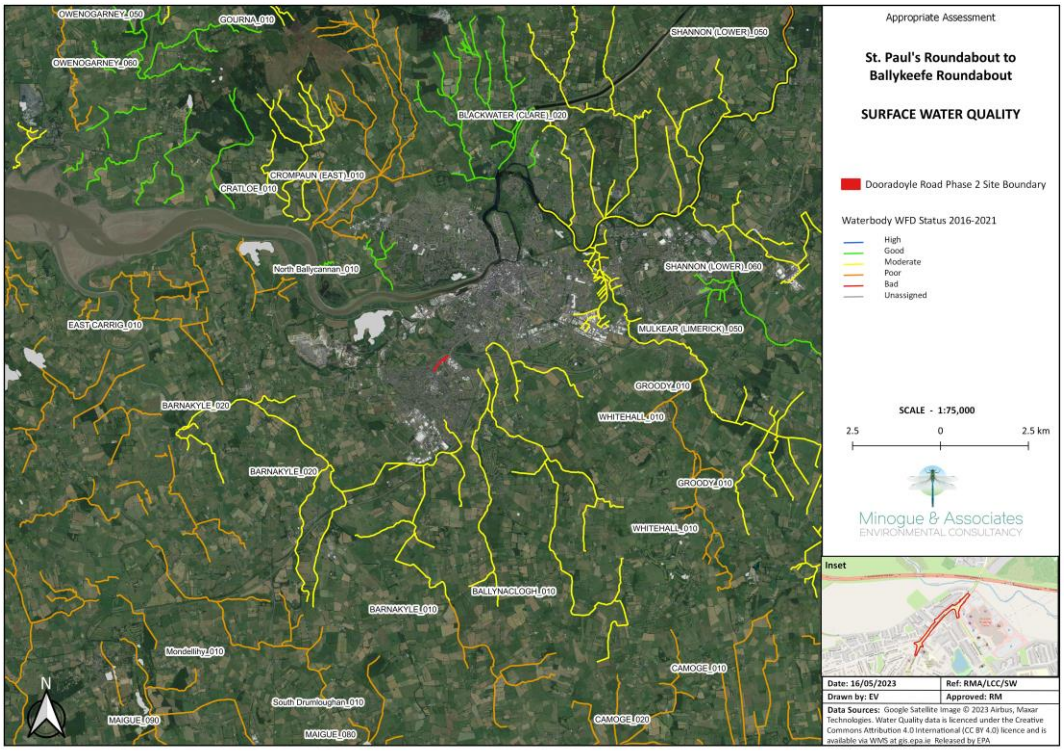
Under the SPR model the project, as described above, represents the source. Potential impact pathways are restricted to hydrological pathways. While it is noted that the project will involve the construction of cycle tracks and reconstruction of existing road and pedestrian footpaths no significant aerial emissions are predicted to arise as a result of this activity. Given the small scale of the construction works required and the distance to the nearest European Sites (i.e. approximately 0.59km) no functional aerial emissions pathway is considered to connect the project to any European Sites. This is supported by the guidance outlined by Holman et al. (2014) which advises that ecological features that are sensitive to dust emissions are likely to be impacted with a zone of 0 to 500m. Other pathways that can typically function as impact pathways to sensitive ecological receptors such as noise, disturbance through the presence of humans is also not considered relevant given the significant distance between the project site and the nearest European Sites.

The receptors represent European Sites and their associated qualifying features of interest. European Sites and their associated qualifying features are likely to occur in the zone of influence of the project only where the above pathways establish a link between the study area and European Sites or where the project site is likely to play an important role in supporting populations of mobile species that are listed as special conservation interests/qualifying species for surrounding European Sites.

With regard to potential impact pathways, it is considered that a potential impact pathway linking the project to European Sites relates to hydrological pathways. In this instance, the nearest surface water stream is the transitional waterbody of Limerick Dock (IE_SH_060_0900) occurring approximately 0.177km to the north-west of the proposed site. It flows upstream into the above-mentioned two overlapping European Sites. The potential surface water will likely flow or drain post rainfall into Limerick Dock that flows into Lower Shannon SAC through the existing drainage systems.

The surrounding surface water hydrology along with the water quality status with respect to the proposed site is shown in Figure 3.3 Limerick Dock falls under the WFD catchments of Shannon Estuary South and Lower Shannon and the subcatchment of Ballynaclogh_SC_010 that is under review due to its unassigned status.

FIGURE 3-3 LOCAL SURFACE WATER HYDROLOGY SURROUNDING THE PROPOSED SITE



No potential for a wastewater pathway will arise during the construction phase given that all wastewater generated during the construction phase by site operative will be directed to the existing foul sewers. Additionally, new foul sewers will be installed if required as a part of the development. The project will not result in the generation of wastewater during the operation phase.

No other pathways such as air, noise or visual disturbance pathways are considered relevant due to the distance of over 0.59 km separating the project site from the nearest European Site. The potential for a mobile species pathway (i.e., where mobile species could be supported by the project site) is also not considered to represent a relevant pathway due to the absence of any suitable habitat for these species occurring at the project site (urban environment).

TABLE 3.1: IDENTIFICATION OF EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE PROJECT

European Sites	Distance from Project Site (km)	Is there a Hydrological/Emission Pathway between the Project Site and European Sites?	Risks to Qualifying Habitats	Risk to Qualifying Mobile Species	Do European Sites occur within the Projects Zone of Influence?
Lower River Shannon SAC	0.59	Given that the project site is located within the Shannon catchment further examination of the potential for a hydrological pathway to connect the project site to this SAC is provided in Section 6 below.	No	No	Yes. The project site is located within the Shannon Estuary North Catchment and the Fergus sub-catchment.
River Shannon and River Fergus Estuaries SPA	01.28	Given that the project site is located within the Shannon catchment further examination of the potential for a hydrological pathway to connect the project site to this SAC is provided in Section 6 below.	No	No	Yes. The project site is located within the Shannon Estuary North Catchment and the Fergus sub-catchment.

Table 3.1 above examines the relationship between the project site and the European Sites occurring within the wider surrounding area. Aside from the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA all other European Sites are confirmed not to be located within the zone of influence of the project. The remainder of this Screening focuses on examining the potential for the project to result in likely significant effects to the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA.

4 OVERVIEW OF EUROPEAN SITES

4.1 LOWER RIVER SHANNON SAC

The Lower River Shannon SAC is located approximately 0.59km to the north of the project site.

Lower River Shannon SAC is designated as a SAC for its role in supporting a range of qualifying habitats and species. This SAC is a very large site that stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/ Kerry Head, a distance of some 120 km. The site thus encompasses the Shannon, Feale, Mulkear and Fergus estuaries, the freshwater lower reaches of the River Shannon (between Killaloe and Limerick), the freshwater stretches of much of the Feale and Mulkear catchments and the marine area between Loop Head and Kerry Head. Rivers within the sub-catchment of the Feale include the Galey, Smearlagh, Oolagh, Allaughaun, Owveg, Clydagh, Caher, Breanagh and Glenacarney. Rivers within the sub-catchment of the Mulkear include the Killeenagarriff, Annagh, Newport, the Dead River, the Bilboa, Glashacloonaraveela, Gortnageragh and Cahernahallia.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1110] Sandbanks
[1130] Estuaries
[1140] Tidal Mudflats and Sandflats
[1150] Coastal Lagoons*
[1160] Large Shallow Inlets and Bays
[1170] Reefs
[1220] Perennial Vegetation of Stony Banks
[1230] Vegetated Sea Cliffs
[1310] *Salicornia* Mud
[1330] Atlantic Salt Meadows
[1410] Mediterranean Salt Meadows
[3260] Vegetation of flowing waters
[6410] *Molinia* Meadows
[91E0] Alluvial Forests*
[1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)

[1095] Sea Lamprey (*Petromyzon marinus*)
[1096] Brook Lamprey (*Lampetra planeri*)
[1099] River Lamprey (*Lampetra fluviatilis*)
[1106] Atlantic Salmon (*Salmo salar*)
[1349] Bottle-nosed Dolphin (*Tursiops truncatus*)
[1355] Otter (*Lutra lutra*)

As noted in Table 3.1 above all qualifying habitats, of this SAC with the exception of vegetation of flow waters are located at a remote distance from the project site and are not connected to the project via any impact pathways. In light of this, the remainder of this screening will focus on examining the potential for the project to result in likely significant effects on the status of this habitat.

In addition, the only qualifying species identified as occurring within the zone of influence of the project are those that are supported by freshwater lotic habitat and that is hydrologically connected to the project. These species are lamprey species, Atlantic salmon and otter.

4.2 River Shannon and River Fergus Estuaries SPA

The estuaries of the River Shannon and River Fergus form the largest estuarine complex in Ireland. The site has vast expanses of intertidal flats supporting invertebrate and vegetation communities that provide ideal foraging habitat for a range of wetland bird species. It is the most important coastal wetland site in the country and regularly supports in excess of 50,000 wintering waterfowl. The site has been selected as a SPA for its role in supporting populations of the following species:

- Cormorant (*Phalacrocorax carbo*) [A017]
- 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]
- Pintail (*Anas acuta*) [A054]
- Shoveler (*Anas clypeata*) [A056]
- Scaup (*Aythya marila*) [A062]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Golden Plover (*Pluvialis apricaria*) [A140]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Greenshank (*Tringa nebularia*) [A164]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]

4.3 Documented Threats & Pressures to Lower River Shannon SAC& the River Shannon and River Fergus Estuaries SPA

The threats and pressures to this SAC and SPA have been documented in the Standard Natura 2000 Data Form for the site (NPWS, 2012a & b). The documented threats and pressures to these sites are as follows:

- Fertilisation: The source of pollution is assumed to be linked to the agricultural improvement referred to in the SAC Site Synopsis.
- Urbanisation, human habitation: this threat relates to existing and proposed urbanized areas located within or immediately adjacent to the SAC/SPA.
- Air pollution: Associated with existing and proposed human activities in the vicinity of the SAC/SPA.
- Discharges: Associated with existing and proposed discharges from both point and diffuse sources to watercourses draining to the SAC/SPA.
- Eutrophication: Associated with existing and proposed point and diffuse sources discharging to the River Shannon.
- Polderisation; and

- Reclamation of land from sea, estuary and marsh.

Of the above threats and pressures, the only one considered to be of relevance to the project is "discharges". This is due to the location of the project within the Shannon Estuary South Catchment.

4.4 Conservation Objectives

The overall conservation objectives for the Lower River Shannon and the River Shannon and River Fergus Estuaries SPA aim to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species/special conservation interest bird species for which the SAC/SPA has been selected.

Favourable conservation status of habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Site-specific conservation objectives have been published for both the Lower River Shannon and the River Shannon and River Fergus Estuaries SPA and are available at:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002165.pdf

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004077.pdf

The key attributes for the conservation of the Annex 1 habitat vegetation of flowing waters are to maintain the extent of habitat area and distribution and the hydrological regime of watercourses supporting this habitat.

The key attributes for the conservation of otters are to maintain the extent of otter habitat and the distribution of otters within the SAC while also maintaining prey resources.

The key attributes for the conservation of Atlantic salmon and lamprey species within the SAC are to maintain the extent of suitable habitat for the various life stages of these species, avoid fragmentation of habitats and maintain water quality within the watercourses protected by the SAC.

The key attributes for the conservation of wetland bird species of the River Shannon and River Fergus Estuaries SPA are to maintain the population and distribution of these species within the SPA.

5 Examination of Effects

5.1 Examination of potential construction & operation phase Effects

The consideration of how the project could result in likely significant effects to the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA relates to an examination of the project's potential to result in contamination to receiving surface waters or groundwaters with consequent negative effects along the Limerick Dock upstream.

Activities associated with the project are not predicted to have the potential to result in adverse negative effects to the water quality of the Limerick Dock occurring to the northwest of the project site. The works will be located in a small area and low volumes of surface water runoff will be generated at the project site during both the construction and operation phases. Given the small scale of the site and its location on level ground, the surface water run-off volume that will be generated will be minuscule in the context of the overall runoff rates from the wider surrounding area into Limerick Dock catchment. Therefore, it will not have a perceptible impact on the water quality of the Limerick Dock.

Furthermore, it is noted that all surface water generated during the project will drain to existing surface water sewers. The project will also involve the installation of more surface water sewers if required. This combined with the above will ensure that the project will not have the potential to result in negative impacts to the water quality of the Limerick Dock and will not have the potential to negatively affect the status and conservation objectives of European Sites- Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA.

6 Examination of Cumulative Effects

A search of National Planning Viewer, the online planning applications website, was completed to identify any other projects in the vicinity of the proposed project, with which this project could combine to result in cumulative negative impacts to the Limerick Dock and the close SAC and SPA upstream.

The following recent planning applications have been identified in the surrounding area:

Planning Reference	Outline of development	Planning status
Part VIII - Fr Russell Road Cycle Scheme Phase 1	The development will consist of: Segregated cycle lanes and footpath upgrades along Fr Russell Rd between Quinn's Cross Roundabout and the junction with Gouldavoher with dedicated pedestrian and cycle crossing facilities. Upgrade of footpath and cycling facilities at Racefield Roundabout. Upgrade works to bus stops including the provision of a bus layby. Upgrade works to side road junctions, and new road surfacing.	Granted

	Landscaping works – including tree removal and tree planting. Installation of LED public lighting Surface water drainage works All associated site works	
20-1058 St. Nessan's Road,Dooradoyle,Limerick	7 no. residential apartments consisting of 4 no. 2 bedroom apartments and 3 no. one bedroom apartments, roof terrace amenity area, bin storage, disabled car parking space, bicycle racks, connection to main drainage and associated works	Granted
20-165 (2020) Crescent College Comprehensive , Dooradoyle Co. Limerick.	Extension of existing secondary school building. Proposed works consist of a single storey standalone extension to the east of the existing school comprising of 5 no. specialist classrooms with associated prep and storage areas and ancillary accommodation, together with associated site works, including the reconfiguration of the existing carpark and construction access from the Dooradoyle Road	Granted
20-1239 Crescent College Comprehensive , Dooradoyle Co. Limerick.	Extension of the existing PE building. Proposed works consist of a single storey extension of 33sqm to the North of the existing school PE Hall comprising of 2no. accessible toilet/shower/changing facilities together with associated circulation and site works, including the relocation of the existing fire exit door from the PE Hall	Granted
20-644 Eochaill , Dooradoyle Road , Limerick	The demolition of the existing substandard dwelling house & garage and for the construction of a replacement two-storey dwelling house and all associated site works	Granted

None of the planning applications as listed here is significant in their scale and is not expected to give rise to any impacts on environmental resources. There and there will be, similarly, no predicted cumulative impacts in relation to environmental resources, for example in terms of habitat loss or disturbance to, protected species as a result of the proposed development or emissions to water or air arising from same.

Based on the above, and the given the examination of (in Section 6.1 above) of the project's potential to combine with other discharges to result in negative impacts to the water quality of the Limerick Dock there will be no potential for the project to combine with other discharges to result in negative impacts to the water quality upstream within the Limerick Dock.

7 SCREENING CONCLUSION

The proposed development is not likely to have any impact on Natura 2000 sites. As such it is concluded that there will be no potential for significant effects on European Sites and the requirement to undertake a Stage 2 Appropriate Assessment of the project can be screened out.

During the preparation of this Screening Report for Appropriate Assessment of the proposed development of cycling facilities on sections of the St Nessans Road in the south Limerick environs, it was found that two European Sites occurring in the wider area surrounding the project site required examination to establish whether or not they were at risk of experiencing likely significant effects as a result of the project. These two European Sites are the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA. No other European Sites are connected to the project site via potential impact pathways and were therefore screened out at an early stage of the screening exercise.

The two European Sites were identified as requiring further examination by virtue of their location in the wider surrounding of the project site and the location of the project site within the Shannon Estuary South catchment, which is the same catchment as these two European Sites.

The potential for the Limerick Dock (transitional waterbody) to function as a hydrological impact pathway, linking the project to these European Sites was examined as part of this screening exercise. This examination was completed by considering all aspects of the proposed project that could result in the emission of potentially polluting material to the Limerick Dock draining lands close to the project.

This assessment found that the two European Sites occurring upstream of the project site are not deemed to be at risk of likely significant effects from the project due to:

The low volumes of water runoff discharging to the receiving Limerick Dock from the project site will facilitate dilution of any potentially polluting surface water runoff locally within the river;

The minor fraction of freshwater flows that the Limerick Dock contributes to the overall freshwater flows to the two European Sites. This minor ratio will facilitate thorough dilution of any potentially polluting surface water entering upstream at these European Sites; and

The known potential for freshwaters inputs to Limerick Dock to rapidly mix and assimilate pollutants such that there is no perceptible impact to the water quality of the two European Sites.

The absence of a functional surface water hydrological impact pathway between the project site and the two European Sites will ensure that the project will not have the potential to result in likely significant effects to the future conservation status of qualifying features of interest and special conservation interests for which these European Sites are designated and will not undermine the achievement of their site-specific conservation objectives.

In light of the findings of this report, it is the considered view of the authors of this Screening Report for Appropriate Assessment that it can be concluded by Limerick City and County Council that the Saint Pauls to Ballykeeffe Roundabout Scheme is not likely, alone or in combination with other plans or projects, to have a significant effect on any European Sites in view of their Conservation Objectives and on the basis of best scientific evidence and there is no reasonable scientific doubt as to that conclusion.

REFERENCES

Department of the Environment Heritage and Local Government (DEHLG) (2008) Circular letter SEA 1/08 & NPWS 1/08.

Department of the Environment Heritage and Local Government (DEHLG) (2010). Appropriate Assessment of Plans and Projects. Guidance for Local Authorities.

English Nature (1999). *Habitats Regulations guidance note no. 3 (HRGN No. 3). Determination of Likely Significant Effect under The Conservation (Natural Habitats &c) Regulations 1994*.

European Commission (2000). *Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC*. Luxembourg.

European Communities (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*. Luxembourg.

European Commission (1992). EU Habitats Directive.

Limerick City and County Development Plan 2022 -2028 Natura Impact Report and Strategic Environmental Assessment ER.

Department of the Environment Heritage and Local Government (DEHLG) (2010). *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*. Second Edition, February, 2010.

European Commission (2002). *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*. Luxembourg.

European Commission (2006). *Explanatory Notes and Guidelines for the Assessment, Monitoring and Reporting under Article 17 of the Habitats Directive*. Luxembourg.

Fossitt J. A. (2000). *A Guide to Habitats in Ireland.* Heritage Council.

Gardiner, M.J. & Radford, T. (1980). Soil Associations of Ireland & their Land Use Potential. National Soil Survey of Ireland. An Foras Taluntais.

Office of the Planning Regulator (OPR) (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01.

NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

NPWS (2012) Conservation Objectives: River Shannon and River Fergus Estuaries SPA 004077. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

NPWS (2019) Natura 2000 Standard Data Form Lower River Shannon SAC

Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants & Land Use Consultants (2006). *Appropriate Assessment of Plans*.

Water Framework Directive and Programme for River Basin Management Plan for Ireland 2018-2021

Draft Third Cycle River Basin Management Plan 2022 2027.

Draft Catchment Assessment Mal Bay, EPA 2023.

APPENDIX 1: QUALIFYING FEATURES OF INTEREST OF EUROPEAN SITES OCCURRING WITHIN THE WIDER SURROUNDING AREA

A total of 16 European Sites were identified as occurring within a 15km radius of the project site. Table A1.1 below lists the qualifying features of interest of each of these European Sites.

TABLE A1.1: QUALIFYING FEATURES OF INTEREST EUROPEAN SITES OCCURRING WITHIN A 15KM RADIUS AND UPSTREAM OF THE PROJECT

European Sites	Qualifying Features Of Interest
Lower River Shannon SAC	Sandbanks which are slightly covered by sea water all the time [1110]
	Estuaries [1130]
	Mudflats and sandflats not covered by seawater at low tide [1140]
	Coastal lagoons [1150]
	Large shallow inlets and bays [1160]
	Reefs [1170]
	Perennial vegetation of stony banks [1220]
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
	Salicornia and other annuals colonising mud and sand [1310]
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
	Mediterranean salt meadows (Juncetalia maritimi) [1410]
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]
	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]
	Salmo salar (Salmon) [1106]
	Tursiops truncatus (Common Bottlenose Dolphin) [1349]
	Lutra lutra (Otter) [1355]
River Shannon and River Fergus Estuaries SPA	Cormorant (Phalacrocorax carbo) [A017]
	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]
	Pintail (Anas acuta) [A054]
	Shoveler (Anas clypeata) [A056]
	Scaup (Aythya marila) [A062]
	Ringed Plover (Charadrius hiaticula) [A137]
	Golden Plover (Pluvialis apricaria) [A140]
	Grey Plover (Pluvialis squatarola) [A141]
	Lapwing (Vanellus vanellus) [A142]
	Knot (Calidris canutus) [A143]
	Dunlin (Calidris alpina) [A149]
	Black-tailed Godwit (Limosa limosa) [A156]
	Bar-tailed Godwit (Limosa lapponica) [A157]
	Curlew (Numenius arquata) [A160]
	Redshank (Tringa totanus) [A162]
	Greenshank (Tringa nebularia) [A164]
	Black-headed Gull (Chroicocephalus ridibundus) [A179]
	Wetland and Waterbirds [A999]
Glenomra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
Ratty River Cave SAC	Caves not open to the public [8310]
	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]
Danes Hole, Poulnalecka SAC	Caves not open to the public [8310]
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]
Askeaton Fen Complex SAC	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]
	Alkaline fens [7230]
Kilkishen House SAC	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]