Mahon Cycling Scheme

Screening Report for Appropriate Assessment

Doherty Environmental Consultants Ltd

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This report has been prepared by Doherty 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 Cork City 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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1.0 INTRODUCTION

Doherty Environmental Consultants (DEC) Ltd. have been commissioned by Cork City County Council, care of Clifton Scannell Emerson Consulting Engineers to undertake a Screening Report for Appropriate Assessment for a proposed cycling scheme at Mahon, Cork City (see Figure 1.1 for location and Figure 1.2 for aerial imagery showing the extent of the proposed works for the project).

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 identify the potential for the project to result in likely significant effects to European Sites and to provide information so that the competent authority can determine 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 2011 – 2015, the competent authority has a duty to:

- Determine whether the proposed Project is directly connected to or necessary for the management of one of more European 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 Eurpoean Site(s) in view of best scientific knowledge and the Conservation Objectives of the site(s).

Mahon Cycling Scheme

Figure 1.1

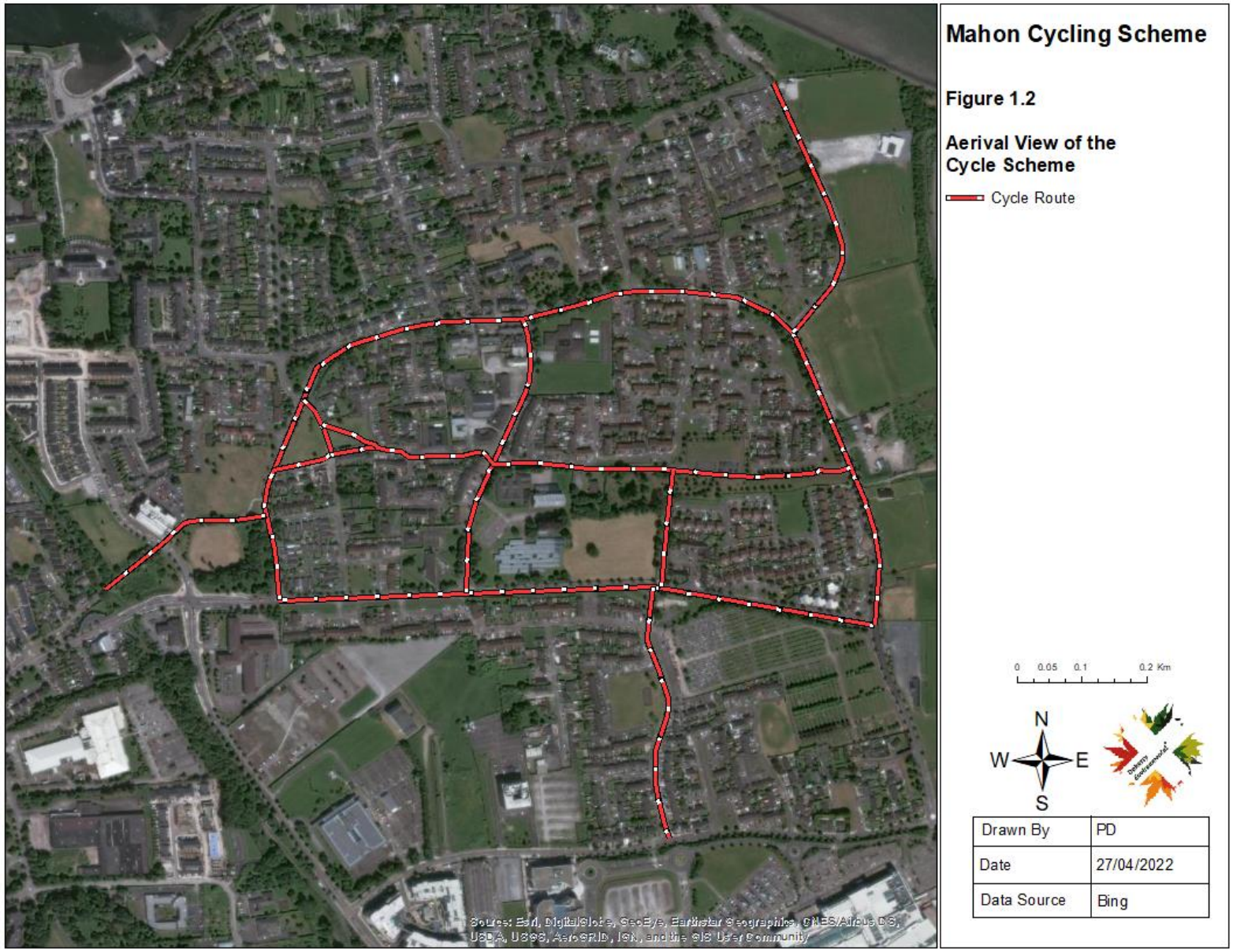
Scheme Location

Cycle Route

0 0.225 0.45 0.9 Km

N W E S

Drawn By	PD
Date	27/04/2022
Data Source	Bing


Mahon Cycling Scheme
Figure 1.2
Aerival View of the Cycle Scheme
Cycle Route
0 0.05 0.1 0.2 Km
N
W
E
S
Drawn By PD
Date 27/04/2022
Data Source Bing
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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 allow the competent authority to comply with the Habitats Directive. Article 6(3) of the Habitats Directive defines the requirements for assessment of projects and plans for which likely significant effects on European Sites may arise. The European Communities (Birds and Natural Habitats) Regulations, 2011 – 2015 (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 European 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).

1.2 SCREENING METHODOLOGY

This Screening Report has been prepared in order to comply with the legislative requirements outlined in Section 1.1 above and aims to establish whether or not the proposed project, alone or in combination with other plans or projects, would be likely to have significant effects on European Sites in view of best scientific knowledge and the Site's conservation objectives. In this context "likely" means a risk or possibility of effects occurring that **cannot** be ruled out based on objective information and "significant" means an effect that would undermine the conservation objectives of the European sites, either alone or in-combination with other plans and projects (Office of the Planning Regulator (OPR), 2021) .

The nature of the likely interactions between the Plan 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.

This Screening Report for Appropriate Assessment has been undertaken with reference to respective National and European guidance documents: Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (DEHLG 2010) and *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 92/43/EEC; Office of the Planning Regulator – OPR Practice Note PN01: Appropriate Assessment Screening for Development Management,* and recent European and National case law. 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 (2021).
- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European commission (2018).

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.

2.0 PROJECT DESCRIPTION

2.1 BACKGROUND

The overall aspiration of the scheme is to deliver a high quality, safe, coherent, direct, and attractive cycle network. The delivery of this infrastructure will provide opportunities to upgrade and enhance the identity of localities along the route, assisting in providing inherent orientation, and enhancing the physical presentation and appeal of localities so as to encourage more walking and more cycling for trips to destinations along and within the lateral catchment of the route.

2.2 NEED FOR THE SCHEME

The Cork Metropolitan Area Transport Strategy 2040 (CMATS) proposes significant traffic management changes that will change the culture and expectation of mobility within the city. Such changes will contribute greatly to increased use of cycling and better utilisation of the public realm.

The scheme is located in the southeast of Cork City and encompasses a predominantly residential area with several schools, sports facilities and retail outlets. The catchment has no substantial length of dedicated cycle facilities. As such, the transport network is heavily focused on motor-based vehicles. The area has therefore been recognised as lacking quality cycle facilities, which discourages people from cycling within this area and to and from the city centre. Cyclists must share the road with the general traffic in traffic lanes that are wide enough to encourage unreasonably high speeds for the residential nature of these roads. The lack of proper cyclist facilities discourages some people from cycling even for short journey trips (e.g. less than 15minutes trips).

The provision of Active Travel infrastructure to provide a safe, coherent and functional network of cycle and pedestrian facilities encourages uptake through the phenomenon of ‘numbers through safety’. Without designated infrastructure and traffic calming measures, the modal share of Active Travel methods for commuting will stagnate due to user hesitance arising from perception of the existing level of service provided to slow modes within a transport network that is dominated by motor vehicles. Increased provision of accessible Active Travel facilities can stimulate demand in vulnerable population cohorts which were previously uncatered for.

Modal shift is best stimulated through initiatives which focus on both infrastructural and behavioural change intervention. There is also scope, through traffic calming and bus priority measures, to increase the modal share of public transport within the area.

2.3 SCHEME OBJECTIVES

The overriding purpose of the project is the delivery of continuous and consistent two-way cycle links where possible along the route and the provision of cyclist priority measures elsewhere. In instances where this is not feasible due to the constraints present, traffic calming measures such as signage and road markings will be implemented to provide a safe cycle network. These links will be attractive premium cycle links that cater for commuting, leisure, tourist and family cycling, as well as improved accessibility for pedestrians.

The proposed scheme must not only increase accessibility and permeability within the immediate study area, but also provide enhanced and safer connectivity with other areas and routes. Ultimately the route should be delivered to improve safety, reduced vehicle speeds, reduce journey times, and contribute towards increased numbers of trips being made by bicycle and by foot in the local catchment.

The scheme aims to provide improved pedestrian and cyclist facilities that provide high quality linkage to the surrounding catchment, including:

- Improvement of footpath and crossing facilities for vulnerable road users and pedestrians, e.g. reduced crossing delays and additional crossing locations for pedestrians;
- Provision of cycling facilities and improvements to cyclist priority and safety along the route, particularly at junctions;
- Provision of a cohesive streetscape catering for all types of vehicular, public transport and active transit modes whilst giving public transport and active modes priority where practicable;
- To provide a safe and legible route for commuter, leisure and delivery cyclists to access the retail and residential premises along the route;

- Reduced vehicle speeds and carriageway widths on self-enforcing traffic calmed roads where cycle facilities are on a shared road surface; and

- Introduce a streetscape that is conducive to cycling, ie; bollards instead of guard rails, providing shelter from wind/rain where possible, provision of smooth surfaces that are free from obstructions, routes that minimise inclines, reducing conflict points for cyclists by providing cyclist priority, avoidance of street clutter, and minimising on street parking.

The proposed solutions will consider the impact on general traffic in the study area as these routes serve as links for public transport and private vehicles also. The proposed solutions will achieve the above objectives whilst providing the best value-for-money design for the medium to long term. A multi-disciplinary approach reflecting the vision of the Design Manual for Urban Roads and Streets (DMURS) for an integrated design process and providing opportunities for improvement of the public realm for all will be taken in the design of this cycle route.

The Scheme aims to provide a local route that provides connectivity at a neighbourhood level by providing dedicated cycle facilities to access local retail outlets, hospitality services, workplaces, schools, sports clubs and residential hubs.

The overall Scheme objective is to provide both a utility network (to connect residential, shopping, work and education centres for functional cycle trips) and a recreational network (to provide a route of sufficient length and quality to cater for exercise, social and tourism trips).

2.4 OVERVIEW OF ROUTE SECTIONS

Table 2.1 below provides an overview description of the route sections.

Table 2.1: Description of Route Sections

Ringmahon Road	A segregated cycle track is provided in each direction where possible. A 3m traffic lane is maintained in each direction.

	Existing footpaths, trees and verges are maintained with cycle lanes/shared space at pinch points (Meadowgrove Convenience Store) to facilitate this. Informal parking is banned on the road although some form of set down / collection arrangement may need to be maintained at the primary school on the road. Designated parking will be provided intermittently, where necessary and parking will be provided at the Meadowgrove Convenience Store. The western junction with Skehard Road is signalised.
Avenue de Rennes	A segregated two-way cycle track on the east side of the carriageway to be provided. Road width 3m traffic lanes maintained in each direction. The majority of on-street parking is maintained with improved landscaping provided. Signalisation of the junctions of Avenue de Rennes with Skehard Road and with Ringmahon Road.
Skehard Road	Extension of the segregated cycle track to be facilitated in a two way track on the southern edge of this carriageway where substantial green verge space exists. Proposed Signalised Junction at Ringmahon Road (west).

	Removal of right turn lane from Skehard Road to Ave de Rennes and road realignment required at the pinch point and signalisation of the junction of Skehard Road and Avenue de Rennes. Two-way cycle track maintained at the pinch point at the private garden east of the junction with Avenue De Rennes.
Castle Road	Maintain existing arrangement with traffic calming and road markings to provide a shared carriageway to cater for cyclists.
Ballinure Avenue	A segregated cycle track is provided in each direction. A 3m traffic lane is maintained in each direction. Existing footpaths, trees and verges are largely maintained. Informal parking is banned on the road.
Passage Greenway Tie-In	Widen the path where possible, and resurface to improve the quality of service.
Ashwood to Castle Park Link	A two-way vehicular access on a carriageway of width 2.5m on with a cycle track in each direction trafficked sections. A 4m shared surface is provided on un-trafficked sections.

2.4.1 Surface Type

The design proposes an overlay treatment, for shape correction, to the existing pavement along the route as part of refurbishing works within the proposed scheme for shape correction to the

existing pavement. The existing pavement will be repaired at the defect sections, levelled to designed levels, cleaned and coated with binding agent prior to overlaying treatment.

At locations where full pavement repair/ restoration is required (at crossings and footpaths), the pavement shall be constructed as per design standard, to be finalised at the detailed design stage.

2.4.2 Scheme Lighting

The public lighting along the route is proposed to be broadly maintained and enhanced were possible. Public lighting poles will be located at the back to the footpath in all instances. It is noted that public lighting is currently provided throughout the cycle scheme routes.

2.5 SURFACE CONSTRUCTION MATERIALS

Materials for construction of the surface upgrade will be imported and stockpiled at the construction compound, which will be located on a site that is buffered from any watercourse by a minimum distance of 50m. The materials to be employed shall principally consist of:

- Geotextile ground reinforcing cloth
- Granular sub-base material (NRA clause 804)
- Asphalt.

2.6 CONSTRUCTION METHODOLOGY

In general, the route is in moderate condition with the exception of areas where patches were observed due to utilities work.

The design proposes an overlay treatment, for shape correction, to the existing pavement within the scheme extents as part of refurbishing works within the proposed scheme for shape correction to the existing pavement. The existing pavement will be repaired at the defect sections, levelled to designed levels, cleaned and coated with binding agent prior to overlaying treatment.

Sections of the road and current footpath will be closed to the public for the duration of the construction phase, which is expected to last for approximately 18-months. Construction materials will be transported from stockpiled areas at an existing Cork City Council construction depot, an existing Cork City Council site compound or existing hard standing directly adjacent the scheme in 6-ton dumper trucks for construction of the scheme.

Excavations, using one 20-ton excavator, will be required for the removal of the existing path surface. Excavation of the existing surface will be kept to a minimum, only comprising the footprint of the path surface that is to be upgraded. It is estimated that a minimal amount of surplus spoil will be generated for offsite disposal. Such spoil will be disposed of at an appropriately licenced facility.

Works will be undertaken on a section-by-section basis with section sizes kept to a minimum to reduce the potential for disturbance to adjacent ecological receptors.

2.7 PLANT & CONSTRUCTION MATERIALS REQUIRED

The type of plant and machinery required will be typical civil engineering road construction plant for earthworks and paving, and is likely to include:

- 360-degree 20 tonne Excavators (crawler track machines)
- Rubber-tyred Excavators 6 tonne JCB
- 3 tonne Mini Diggers
- 30 tonne Dump Trucks
- 6 tonne Dumpers
- 7.5 tonne multi-purpose truck
- 20 tonne and 30 tonne delivery trucks (importation of rock and bitumenous paving materials
- Teleporter for erection of lighting columns

- Site Vehicles (4x4 wheel short base and vans)
- Compactor plates
- 1 tonne hand roller
- 6 tonne vibrating Rollers
- 10 tonne dead weight rollers
- Blawknox Paving Machine
- Bitumen Boiler/Hot Box
- Oil Tanker/Sprayer
- Road Planing Machine
- Extruded Kerb Laying Machine
- Road Saws/Con Saws/chain saws
- Bark Mulchers
- Air Compressors
- Jack Hammers
- Stihl Saws
- Small tools/hand tools
- Traffic Management Signs, Cones & Barriers
- Herras Fencing
- Mobile Traffic Lights
- Road Sweeper & Water Tank Truck
- PPE

All machinery will be inspected and certified to be free of leaks and weeps prior to mobilisation on site.

The materials will be typical civil engineering road construction materials consisting of cement, sand, gravel of various aggregate sizes, imported and reused top soil and precast concrete kerbs.

2.8 SITE PERSONNEL

The number of site personnel required for the construction phase will be finalised by the appointed contractor but it is estimated that a maximum of 10 site personnel will be required to complete works for the project.

2.9 CONSTRUCTION COMPOUND

An existing Cork City Council construction depot, and existing Cork City Council site compound or existing hard standing directly adjacent the scheme will be provided for the duration of the works. The location will be decided upon appointment of the Contractor and subject to CCC approval.

2.10 SPOIL STORAGE

All spoil excavated during the construction phase of the project will be reused so that the requirement of the import of material is eliminated or minimised to a low level. Any soil material excavated within the area of works or imported to the site will be stored in the area designated for spoil storage.

2.11 DURATION OF CONSTRUCTION PHASE

It is estimated that the construction process will take up to 18 months.

3.0 DESCRIPTION OF THE PROJECT AREA

The Mahon Cycling Scheme route that will be subject to upgrade works is located along the existing road carriageway and footpath. The habitats occurring along the route are dominated by artificial surfaces (Fossitt Habitat Code BL3). Strips and playing fields of amenity grassland

(GA2), flower beds (BC4) as well as stone walls (BL1) occur along the sections of the route corridor.

There are no watercourses occurring at the surface along or adjacent to the route, with the nearest waterbody represented by the River Lee Estuary approximately 100m to the northeast of the nearest point of the project, north of the northern project terminus at Castle Road.

The project site is located within the Glasheen (Cork City)_SC_010 sub-catchment of the Lee and Tramore Coastal surface water catchments. The surrounding lands are drained by a network of existing drains that form part of the Cork City combine sewerage network that conveys surface water to the municipal wastewater treatment plant for final treatment prior to discharge to the receiving environment.

4.0 IS THE PROJECT NECESSARY FOR THE CONSERVATION MANAGEMENT OF EUROPEAN SITES

The project has been described in Section 2 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.

5.0 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE OF THE PROJECT

Current guidance (OPR, 2021) informing the approach to screening for Appropriate Assessment defines the zone of influence of a proposed development 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.

As a first step in identifying the European Sites that could be connected to the project via SPR pathways all European Sites occurring in the wider surrounding area were identified. As can be seen in Figures 5.1 two European Sites, comprising Cork Harbour SPA and Great Island Channel SAC, occur within the wider area surrounding the project site. the special conservation interests of the Cork Harbour SPA are outlined in Section 6 below. The qualifying features of interest of the Great Island Channel SAC are tidal mudflats and sandflats and Atlantic salt meadows. All other European Sites are located at a remote distance from the project site and

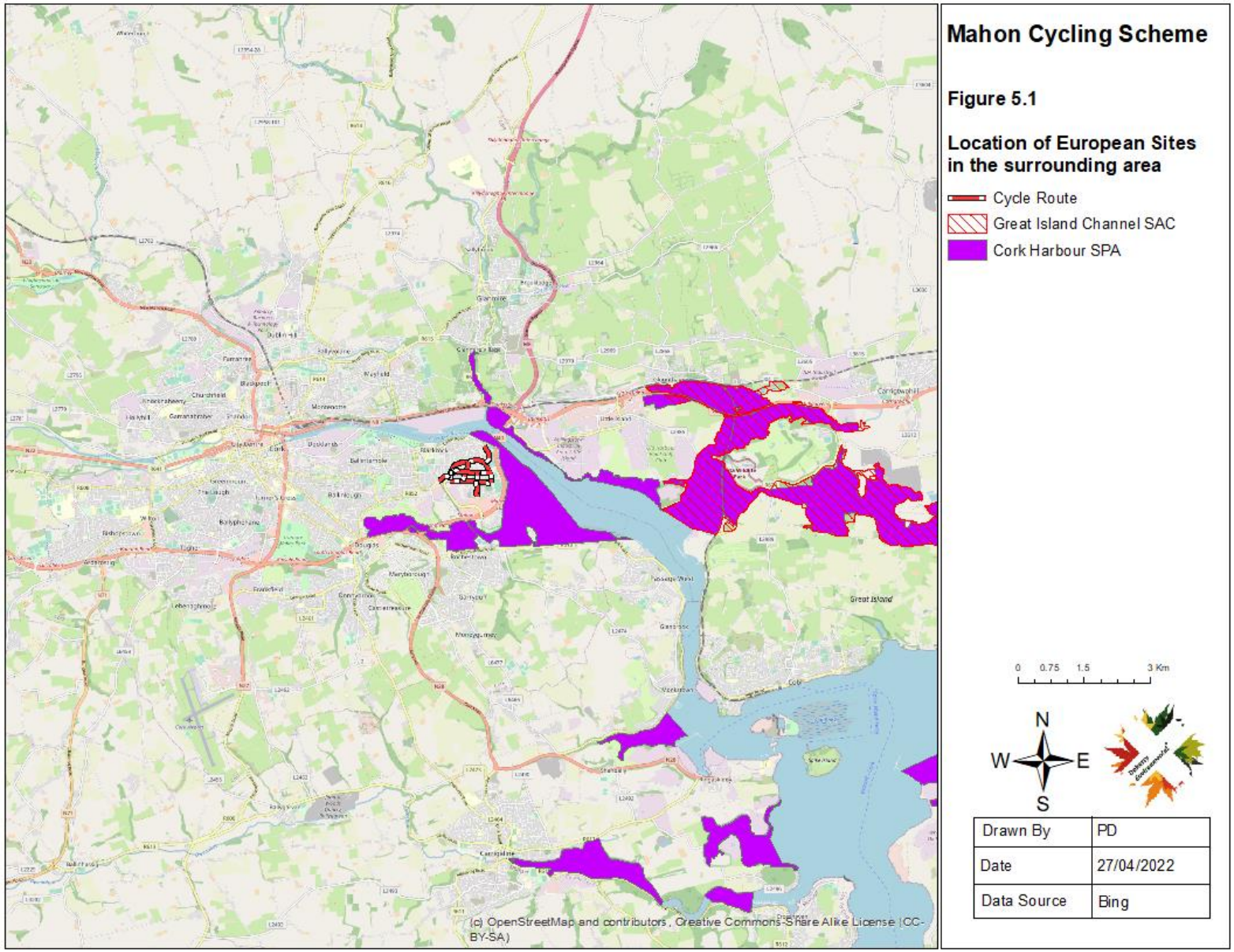
are not connected to it via any SPR pathways. As the nearest European Site, the Cork Harbour SPA, is located approximately 100m (as the crow flies) from the nearest point of the project at Castle Road, the project will not have the potential to result in direct impacts to European Sites. Furthermore the Great Island Channel SAC is located approximately 4km to the east of the project site on the east side of Lough Mahon and Cork Harbour. Given the separation distance between the project and the Great Island Channel SAC and its associated qualifying features of interest and the nature of the project, it is considered that by virtue of these factors alone, this SAC does not lie within the zone of influence of the project.

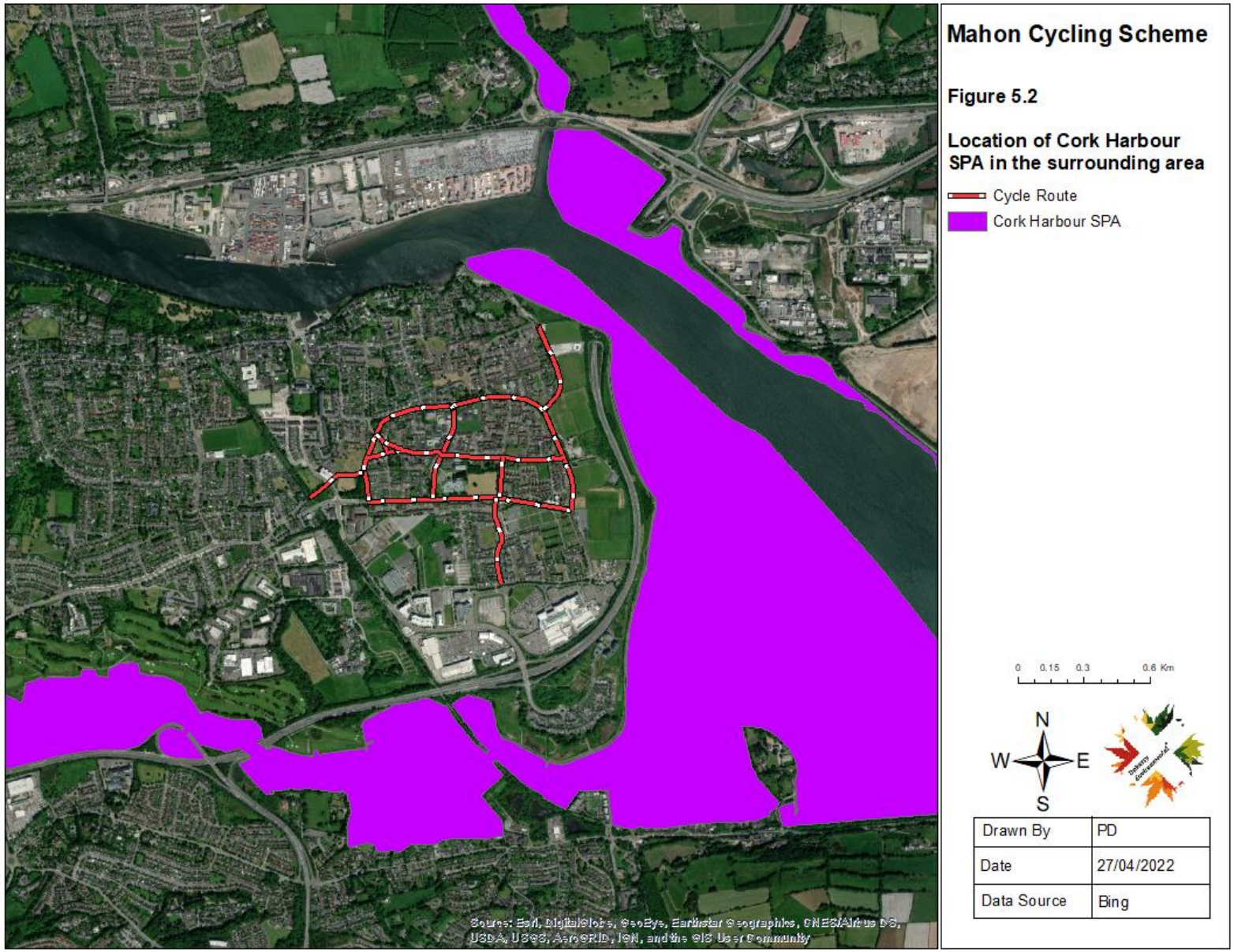
Thus, this Screening exercise focuses on investigating whether it can or cannot be excluded, on the basis of objective information and a very precautionary approach, that the project will have the potential to result in indirect effects to the Cork Harbour SPA or effect mobile species associated with Cork Harbour SPA 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 the Cork Harbour SPA. During the construction and operation of new development projects the potential exists for the following emission pathways to occur: surface water; groundwater; noise and vibration; air; light; and visual. Development projects that are located outside of European Sites can also result in impacts to mobile qualifying species of European Sites in the event that such species rely on habitats occurring within the project site. For the purposes of this screening report this impact is referred to as a "mobile species impact".

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 hydrological pathways establish a link between the project and the European Site or where there is potential for qualifying species of surrounding European Sites to occur at the project site. Other pathways such as noise and aerial emission pathways, lighting and disturbance pathways are not considered to have the potential to link the project site to surrounding European Sites due to the distance between the site and these European Sites.


Mahon Cycling Scheme
Figure 5.1
Location of European Sites in the surrounding area
Cycle Route
Great Island Channel SAC
Cork Harbour SPA
0 0.75 1.5 3 Km
N
W
E
S
Drawn By PD
Date 27/04/2022
Data Source Bing
(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)



Mahon Cycling Scheme

Figure 5.2

Location of Cork Harbour SPA in the surrounding area

Cycle Route

Cork Harbour SPA

0 0.15 0.3 0.6 Km

N W E S

Drawn By	PD
Date	27/04/2022
Data Source	Bing

6.0 EUROPEAN SITE BASELINE

The Cork Harbour SPA represents the only European Site likely to occur within the sphere of influence of the project. The next step in this Screening Assessment identifies the special conservation interests occurring within the potential sphere of influence of the project.

Cork Harbour SPA is a large European Sites consisting of a number of discrete sections associated with river estuaries. The section relevant to the project site is that occurring along either bank of the River Lee Estuary. Other areas of the SPA are located in the outer River Lee estuary and Cork Harbour and due to the harbours hydrodynamics and specifically tidal influences are not considered to occur within the sphere of influence of the project.

The special conservation interests of Cork Harbour SPA include a list of 23 wetland bird species and wetland habitats.

The special conservation interest bird species (with EU Birds Directive Code No. in parenthesis) are as follows:

- Little Grebe (Tachybaptus ruficollis) [A004]
- Great Crested Grebe (Podiceps cristatus) [A005]
- Cormorant (Phalacrocorax carbo) [A017]
- Grey Heron (Ardea cinerea) [A028]
- Shelduck (Tadorna tadorna) [A048]
- Wigeon (Anas penelope) [A050]
- Teal (Anas crecca) [A052]
- Pintail (Anas acuta) [A054]
- Shoveler (Anas clypeata) [A056]
- Red-breasted Merganser (Mergus serrator) [A069]
- Oystercatcher (Haematopus ostralegus) [A130]
- Golden Plover (Pluvialis apricaria) [A140]
- Grey Plover (Pluvialis squatarola) [A141]
- Lapwing (Vanellus vanellus) [A142]
- 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]
- Common Gull (Larus canus) [A182]
- Lesser Black-backed Gull (Larus fuscus) [A183]
- Common Tern (Sterna hirundo) [A193]

The wetland habitats of the SPA include intertidal mudflats, saltmarshes and estuaries.

These wetland habitats of the SPA occur within the River Lee Estuary section of the SPA and are considered to occur within the potential sphere of influence of the project due to the hydrological link between the project site and these wetland habitats.

Whether special conservation interest bird species of the SPA occur within the potential zone of influence of the project depends upon the known distribution of these species within the River Lee Estuary Section of the SPA.

The distribution of special conservation interest bird species within the River Lee Estuary section of the SPA is based on the results of baseline surveys for the Cork Harbour SPA, as published by the NPWS (NPWS, 2014). The distribution of species within this section of the SPA have been identified during Irish Wetland Bird Surveys spanning the period 1994/95 to 2012/13. These surveys are based on wetland bird surveys and counts within subsites of the Cork Harbour SPA. The IWeBS subsites occurring along the most westerly sections of the River Lee Estuary within the SPA (and closest to the project site) are OL486, OL536 and OL539. The role these subsites play as foraging and roosting sites for special conservation interest bird species of the SPA is summarised in Table 6.1 below. In Table 6.1 the importance of each subsite is ranked from low (L); moderate (M); high (H) and very high (V). The British Trust for Ornithology (BTO) species codes are used to indicate relevant species on Table 6.1.

Table 6.1: Ranked Importance of Subsite OL486; OL536; and OL539 for Intertidal and Subtidal Foraging, Roosting and Other Behaviour (Source NPWS, 2014)

Subsite	**Foraging**				**Roosting & Other Behaviour**			
	L	**M**	**H**	**V**	**L**	**M**	**H**	**V**
OL486	T.; LG	SU; WN; CA; H; OC; CU; RK; BH; LB	DN; BW	BA	L	RK; CM	CA; BW; CU	OC; BH
OL536	CA; BH	T.; RM; CM	BW; BA; RK	GG; OC; DN; CU; LB	BW		GP	CA; BA
OL539	OC; RK; BH	WN; CA; BW; CU	GG		BH	CA; OC; CM; LB	GG	

BA – Bar-tailed Godwit; BH – Black-headed Gull; CA – Cormorant; CM – Common Gull; CU – Curlew; DN – Dunlin; BW – Black-tailed Godwit;

GG – Great-crested Grebe; GP – Golden Plover; H. – Grey Heron; L – Lapwing; Lb – Lesser Black-backed Gull; LG – Little Grebe;

OC – Oystercatcher; RK – Redshank; RM – Red-breasted Merganser; SU – Shelduck; T. – Teal; WN – Wigeon

Table 6.1 lists 19 (of the total no. of 23) special conservation interest bird species of the Cork Harbour SPA as regularly occurring within the River Lee Estuary section of the SPA. This section of the SPA supports important numbers (i.e. moderate to very high) of 16 of these species (teal, little grebe and lapwing regularly occur in low numbers).

As such the special conservation interest bird species of the SPA occurring within the potential sphere of influence of the project are:

- Great Crested Grebe
- Cormorant
- Grey Heron
- Shelduck
- Wigeon
- Red-breasted Merganser
- Oystercatcher
- Golden Plover
- Dunlin
- Black-tailed Godwit
- Bar-tailed Godwit
- Curlew
- Redshank
- Black-headed Gull
- Common Gull
- Lesser Black-backed Gull

6.1 CORK HARBOUR SPA CONSERVATION OBJECTIVES

Site-specific Conservation Objectives for the Cork Harbour SPA have been published by the NPWS (NPWS, 2014). The overall Conservation Objectives for the special conservation interest bird species of the Cork Harbour SPA is to maintain the favourable conservation status of bird species for which the SPA is designated. The favourable conservation status of bird species will be 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, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

The site-specific Conservation Objectives for the Cork Harbour SPA aim to define the favourable conservation status its special conservation interest bird species. The site-specific Conservation Objectives for these species occurring within the sphere of influence of the project are outlined in Table 6.2 below.

Table 6.2: Site-Specific Conservation Objectives for Cork Harbour SPA Special Conservation Interest Species

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Number and range of areas used by waterbirds	No significant decrease in the range, timing and intensity of use of areas by special conservation interest bird species of the SPA other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

7.0 EXAMINATION OF POTENTIAL FOR IMPACT PATHWAYS TO ARISE

This section examines the potential for each of the above potential emission pathways identified in Section 5.0 to function as an impact pathway between the project and the Cork Harbour European Sites. Only where potential impact pathways are identified will these European Sites occur in the zone of influence of the project and further examination of the project's potential for likely significant effects to European Sites will be required. Where no potential impact pathways are identified there will be not potential for the project to result in likely significant effects to European Sites and the European Sites will not lie within the zone of influence of the project.

7.1 SURFACE WATER

Given that all surface water generated at the project site will drain to the existing combined sewerage network serving the southeast of Cork City and will eventually be treated prior to discharge to the receiving environment there will be no potential for the project to result in the discharge of untreated and contaminated surface waters to the receiving environment. Furthermore it is noted that given the minor scale and brief to temporary duration of the works at any one time, the potential for these works to generated polluted surface water runoff is considered to be negligible and will not present a risk to quality of surface water runoff generated in the vicinity of any works area.

7.2 GROUNDWATER

The project will be situated on area of existing made ground and minor areas of amenity grassland. Given the minor and shallow excavations required for the project, which will involve the removal of existing surfaces at specified locations and the upgrade of these surfaces with a share cycle surface, there will be negligible discharge of surface waters to ground. Furthermore it is noted that given the minor scale and brief to temporary duration of the works at any one time, the potential for these works to generated polluted surface water runoff is considered to be negligible and will not present a risk to the quality of surface water runoff generated in the vicinity of any works area.

7.3 NOISE

The project site is located in the vicinity of the Cork Harbour SPA, with the nearest point of the project to the SPA approximately 100m from the northern terminus of the project at Castle Road.

The works required along the Castle Road section of the project and the north-south section of Ringmahon Road adjacent to Ringmahon Rangers AFC soccer pitches and Mahon Rugby Grounds will be minor in their scale and duration and will not result in the generation of significant noise emissions that could have the potential to result in disturbance to waterbirds within the SPA to the east/northeast or to waterbirds that may forage in amenity grassland habitat between these roads and the SPA. It is noted that these playing pitches are not known to be relied upon by waterbirds as a key/important foraging habitat and that no waterbirds were identified foraging within these playing pitches during a survey of the site on the 9th February, 2022.

To aid in the consideration of the potential construction disturbance effects to waterbirds, Cutts et al. (2013) developed the Waterbird Disturbance Mitigation Toolkit. The distance for noise disturbance to wetland bird species from construction works is considered to be limited to a maximum 300m distance from the source of the noise (Cutts et al. 2013). Disturbance effects up to a 300m distance are associated with high noise levels, circa 120 dB(A) at source. During the construction phase of the project a variety of items of plant will be in use, such as excavators, dumper trucks, compressors, jack hammers and generators.

The plant and machinery to be operated during the construction phase is outlined in Section 2.7 above and again in Table 7.2 below. The typical noise levels associated with the types of plant and machinery that will be used for the project works and the distance at which acceptable dose levels are attained from the source are provided in Table 7.2. The calculation of the disturbance distance (i.e. the distance between the source and the acceptable dose level) is based on the noise disturbance calculation table provided by Cutts et al. (2013) and reproduced as Table 7.1 below.

Table 7.1: Noise Disturbance Calculation Table (Source: Cutts et al. 2013)

Metres from Source	dB(A)										
0.67	120	110	100	95	90	85	80	75	70	65	60
1.33	114	104	94	89	84	79	74	69	64	59	54
2.67	108	98	88	83	78	73	68	63	58	53	48
5.33	102	92	82	77	72	67	62	57	52	47	42
10.67	96	86	76	71	66	61	56	51	46	41	36
20.67	90	80	70	65	60	55	50	45	40	35	30
42.67	84	74	64	59	54	49	44	39	34	29	24
85.33	78	68	58	53	48	43	38	33	28	23	
170.67	72	62	52	47	42	37	32	27	22		
341.33	66	56	46	41	36	31	26	21			
682.66	60	50	40	35	30	25	20				
1365.32	54	44	34	49	24						

Table 7.2: Typical Noise Levels generated by Project Plant and Machinery and Distance to Acceptable Dose Levels for Wetland Bird Species

Phase	**Plant Item (Ref: BS 5228)**	**Plant Noise Level at 10m Distance1 (dB LAeq)**	**Generic Distance (m) to Acceptable Dose Level from Source**
Site Preparation	Wheeled Loader Lorry (C2 28)	74	12
	Diesel Generator (C4.76)	61	12

	Track Excavator (C2 22)	72	12
	Dozer (C2.13)	78	13
	Dump Truck (C4.2)	78	13
Foundation Laying	Tracked Excavator (C3.24)	74	12
	Concrete Pump (C3.25)	78	12
	Compressor (C3 19)	75	12
	Poker Vibrator (C4 33)	78	13
General Construction	Tower Crane (C4.48)	76	13
	Articulated lorry (C12.10)	77	13
	Hand tools	81	13
	Pneumatic Circular Saw (D7.79)	75	12
	Internal fit – out	70	12

The examination provided in Table 7.2 above indicates that the noise generated during the construction phase will be within acceptable dose levels for waterbird species well within 20m of the source of construction.

Given that the nearest point of the project to the SPA is approximately 100m, any works associated with the project along Castle Road or Ringmahon Road will be well outside the potential noise disturbance zone for waterbirds and as such there will be no potential for a noise impact pathway between the project site and the wetland habitats of the SPA upon which waterbirds rely. It is also noted that the majority of the amenity grassland adjacent to these sections of the route are also located outside the potential disturbance zone of any works and as such the project will not have the potential to result in any significant disturbance effects to waterbirds that may use these grassland habitats for foraging.

7.4 AIR

There will be demolition works associated with the removal of existing surfaces along specified sections of the cycle route. These works will be minor in scale and of a short duration and will not have the potential to result in the generation of perceptible levels of dust emissions and will not have the potential to pose a risk to baseline air quality. Furthermore the absence of a potential air impact pathway between the project and the Cork Harbour SPA is also supported by the guidance outlined by Holman et al. (2014), which provides a risk assessment for ecological impacts arising from dust deposition, where perceptible levels of dust are likely to arise as a result of a project. European Sites including SACs and SPAs are ranked as high sensitive sites and the risk to high sensitive sites ranges from high (at less than 20m from source) and medium (at less than 50m from source). Given the location of the Cork Harbour SPA approximately 100m to the north of the proposed development footprint, it is considered that the project site lies well outside the 50m zone of influence of dust emissions (were perceptible emissions predicted to arise, which in this case they are not) and as such any dust generated as a result of the project would in any case not have the potential to result in any effects to the SPA. The operation phase of the project has the potential to result in positive impacts for air quality through the promotion of active travel and a decrease in the use of vehicles for short to short-medium distance journeys.

7.5 LIGHT

The cycle route is located in a suburban area where existing public lighting is provided throughout. The existing lighting along the route is proposed to be broadly maintained and enhanced were possible. Any public lighting enhancement will not result in changes to light conditions within the SPA and will not result in negative effects to the SPA.

7.6 VISUAL DISTURBANCE

The works along the sections of the route nearest the SPA, along Castle Road and Ringmahon Road will be restricted to the existing road, footpath surfaces and amenity grassland verge. These works will be buffered from the SPA boundary and will not be visible from wetland habitats relied upon by special conservation interest bird species supported by the SPA. The works will be small in scale and or a brief to temporary duration and will not have the potential to result in visual disturbance to the SPA.

7.7 MOBILE SPECIES PATHWAY

The project is restricted to the existing road network along Castle Road and Ringmahon Road, which are the locations of the project closest to the SPA. With the exception of minor areas of works within amenity grassland adjacent to sections of the road corridors occurring along the route, all works will be restricted to the existing road and footpath. The road and footpath network does not have the potential to support waterbirds of the SPA. The amenity grassland verge habitat is located along the verge of existing public road and does not offer suitable foraging habitat for waterbirds. The amenity grassland of the playing pitches immediately adjacent to Castle Road and Ringmahon Road do have potential to function as foraging habitat for waterbirds of the SPA outside of the SPA boundary. It is noted that these playing pitches are not known to be relied upon by waterbirds as a key/important foraging habitat and that no waterbirds were identified foraging within these playing pitches during a survey of the site on the 9th February, 2022. Furthermore, given the minor nature of the works required for the project along Castle Road and the north-south section of Ringmahon Road adjacent to Ringmahon Rangers AFC soccer pitches and Mahon Rugby Grounds there will be no potential for the project to result in disturbance to waterbirds that may use the amenity grassland of these areas

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8.0 SUMMARY OF EXAMINATION OF LIKELY SIGNIFICANT EFFECTS

The absence of any potential impact pathways will ensure that this project does not have the potential to result in likely significant effects to European Sites or the local environment surrounding the project site. A Screening Matrix, in line with European Commission (2001) guidelines is provided below in Table 5.2.

Table 8.1: Screening Matrix for the proposed development

Brief description of the project or plan	The project and associated activities are described in Section 2 above.
Brief description of the European Sites	The European Sites occurring in the wider surrounding area are identified and briefly described in Section 5, Figure 5.1 and Section 6 above.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Sites.	The project has been examined for its potential to give rise to indirect impacts to the Cork Harbour SPA. This examination has been underpinned by examining the potential for the project to result in emissions that could negative affect the SPA. No emission impact pathways were identified as arising as a result of the project. Based on the absence of the project's potential to result in emission impact pathways it will not have the potential to give rise to impacts to the Cork Harbour SPA.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Sites site by virtue of: • size and scale; • land-take; • distance from the Natura 2000 site or key features of the site; • resource requirements (water abstraction etc.); • emissions (disposal to land, water or air); • excavation requirements;	The project will not have the potential to result in direct, indirect or secondary impacts to European Sites. As there are no pathways connecting the project site to surrounding European Sites and as the project will not result in significant negative impacts to the surrounding local environment it will not have the potential to combine with other projects in the surrounding area to result in cumulative significant effects to the local environment or

• transportation requirements; • duration of construction, operation, decommissioning, etc.;	European Sites occurring in the wider surrounding area.
Describe any likely changes to the site arising as a result of: • reduction of habitat area: • disturbance to key species; • habitat or species fragmentation; • reduction in species density; • changes in key indicators of conservation value • (water quality etc.); • climate change.	As there are no pathways between the project site and surrounding European Sites and as the project is not predicted to result in the emission of potentially polluting substances to the surrounding environment it will not have the potential to result in changes to qualifying habitats or qualifying species of European Sites occurring in the wider surrounding area.
Describe any likely impacts on the European Sites site as a whole in terms of: interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site	For reasons set out above the project will not have the potential to interfere with key relationships that define the structure and function of European Sites. Given the absence of any connections between the project site and the Cork Harbour SPA, the conservation objectives for this site, as detailed in Section 6.1 above, will not be undermined by the project.
Provide indicators of significance as a result of the identification of effects set out above in terms of: • loss; • fragmentation; • disruption; • disturbance; • change to key elements of the site (e.g. water quality etc.).	For reasons set out above the project will not have the potential to result in such effects to the Cork Harbour SPA.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	The project will not have the potential to result in likely significant effects to European Sites.

9.0 SCREENING CONCLUSION

During the preparation of this Screening Report for Appropriate Assessment of the proposed cycling scheme it was found that two European Sites occur within the surrounding area. the Great Island Channel SAC is located approximately 4km to the east of the project. This SAC was screened out at an early stage of this screening exercise due to its remote location from the project site, the nature of the project and the absence of pathways connecting the project to this SAC. The Cork Harbour SPA is located approximately 100m from the nearest point of the SAC and the potential for the project to result in likely significant effects to this SPA has been examined as part of this screening exercise.

This screening report has examined the potential for pathways to connect the project site to Cork Harbour SPA and has found that there are no potential impact pathways connect the project to Cork Harbour SPA.

Given the absence of impact pathways and the potential for interactions between the project and Cork Harbour SPA there will be no potential for the project to result in likely significant effects to this European Site.

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 Cork City Council that the project 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.

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