Ballyvolane Strategic Transport Corridor Screening Report for Appropriate Assessment

Doherty Environmental Consultants Ltd.

October 2021

Ballyvolane Strategic Transport Corridor

Screening Report for Appropriate Assessment

Document Stage	Document Version	Prepared by
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External Draft	2	Pat Doherty MSc, MCIEEM
Final	3	Pat Doherty MSc, MCIEEM

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1.0 INTRODUCTION

MHL & Associates have commissioned Doherty Environmental Consultants (DEC) Ltd. on behalf of Cork City Council to complete a Stage 1 Screening Report for Appropriate Assessment for the proposed Ballyvolane Strategic Transport Corridor. The location of the project is shown on Figure 1.1 while an aerial image is shown on Figure 1.2.

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).

This Report contains a Screening for Appropriate Assessment and is intended to examine 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).

Ballyvolane Strategic Corridor

Figure 1.1

Project Location

Project Location

0 0.5 1 Km

N W E S

Drawn By	PD
Date	17/10/2021
Data Source	Bing


Ballyvolane Strategic Corridor
Figure 1.2
Aerial View of the Project
Project Location
0
0.1
0.2 Km
N
W
E
S
Drawn By
PD
Date
17/10/2021
Data Source
Bing

1.2 SCREENING METHOD

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 exercise has been undertaken with reference to respective National and European guidance documents: Appropriate Assessment of Plans and Projects in Ireland (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* and relevant European and National case law. The following guidance documents were also of relevance during this Screening Assessment:

- 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 exercise of a project that has the potential to have likely significant effects on European Sites. The methodology adopted for this Screening exercise 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 likely to be influenced by the project;

3. Screen the project against established assessment criteria to determine if it has the potential to affect European Sites; 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 OVERVIEW

The Ballyvolane Strategic Transport Corridor has been identified as an important transport corridor for the north side of Cork City. This transport corridor, from Ballyvolane to the city centre, links the existing population north of the R635 North Ring Road to the city centre via the R614 Ballyhooly Road and Summerhill North. Planning permission has recently been granted for a large-scale housing development to the north of Ballyvolane and the area is zoned for further large-scale population expansion under the City Council's Ballyvolane Urban Expansion Area planning objective. There is a requirement for major upgrades to the local road network and in particular the need for cycle, pedestrian and public transport infrastructure upgrades to cope with existing and future demand for more sustainable modes of transport. This new infrastructure, when completed, will provide a sustainable transport corridor between Ballyvolane and Cork City centre.

The overall length of the roads to be upgraded measures approximately 1.8 kilometres and consists of 1.0km of the Ballyhooly Road, 0.3km of the North Ring Road, 0.3km of the Ballyvolane Road, 0.1km of the Banduff Road and 0.1km of the Rathcooney Road.

The project works will include widening and realignment of the existing road corridor, services diversions, drainage works including lengthening of the existing culvert and bridge structure on the Ballyhooly Road, realignment of junctions, new footpaths, cycle tracks, bus lanes, new surface water drainage system, new road lighting scheme, new boundary treatments, retaining walls, earthworks embankments, accommodation works, new landscaping with tree & hedge planting, traffic calming measures, junction buildouts, new road markings, upgraded road signage and street furniture and all ancillary works necessary for completion.

The works will include the widening and realignment of the existing road corridor into adjacent agricultural land, public green areas, commercial premises and private gardens.

2.2 DESCRIPTION OF THE WORKS

The project works comprises of:

- widening and realigning the existing R614 Ballyhooly Road to provide a 6m wide single carriageway along the full length of the scheme (1000m in Length) and improving the alignment to provide DMURS standard minimum horizontal and vertical radii curves and sight lines

- the provision of continuous 2m wide footpaths on both sides of the R614 Ballyhooly Road from the North Ring Road to Ballyvolane Cross (Fox & Hounds) (262m in Length)

- the provision of continuous 2m wide off-road cycle tracks on both sides of the R614 Ballyhooly Road from the North Ring Road to Ballyvolane Cross (Fox & Hounds) (262m in Length)

- the provision of bus lanes on both sides of the R614 Ballyhooly Road from the North Ring Road to Ballyvolane Cross (Fox & Hounds) (262m in Length)

- the provision of a 1.8m wide footpath on the right-hand side (looking to north) of the R614 from Ballyvolane Cross (Fox & Hounds) to the proposed pedestrian crossing to Longview Developments residential site (738m in Length)

- the provision of a 4m wide multi-use space on the left-hand side (looking to north) of the R614 from Ballyvolane Cross (Fox & Hounds) to the proposed pedestrian crossing to Longview Developments residential site (738m in Length)

- widening and realigning the existing Ballyvolane Road to provide a 6m wide single carriageway from Ballyvolane Cross (Fox & Hounds junction) to the R635 North Ring Road/Clonard junction (320m in length)

- the provision of continuous 2m wide footpaths on both sides of the Ballyvolane Road from Ballyvolane Cross (Fox & Hounds junction) to the R635 North Ring Road/Clonard junction (320m in length)

- the provision of continuous 2m cycle tracks on both sides of the Ballyvolane Road from Ballyvolane Cross (Fox & Hounds junction) to the R635 North Ring Road/Clonard junction (320m in length)

- the upgrade of two existing major signal-controlled junctions at 1) North Ring Road/Ballyhooly Road Crossroads and 2) Ballyvolane Cross (Fox & Hounds) with revised traffic signal phasing/sequencing, additional bus lanes, bus priority control, revised traffic lanes, additional cycle and pedestrian facilities as well as improved facilities for vulnerable road users

- the upgrade of the existing signalised pedestrian crossing on the North Ring Road at Riverview estate to a toucan crossing

- the provision of a 4m wide multi-use space to connect Riverview Estate to Ballyvolane Road

- a change in traffic priority of the Banduff Road/Rathcooney Road junction to favour Banduff Road traffic over Rathcooney Road traffic by realigning the junction layout and providing DMURS standard design to improve road safety and traffic congestion issues

- the provision of a 2m wide footpath on the northern side of Banduff Road to its junction with Rathcooney Road.

- the provision of a 3m wide multi-use space on the southern side of Banduff Road to its junction with Rathcooney Road

- widening of the Glen River Bridge and lengthening of the culvert

- the provision of a proposed new Toucan Crossing at the proposed Longview residential development site

- the provision of improved pedestrian, cycling and public transport infrastructure on all roads in the scheme with new bus stops, bus shelters, pedestrian crossings, toucan crossings, upgraded signal-controlled junctions with bus priority and cycle priority infrastructure, vulnerable road user infrastructure such as raised entry treatments at access roads, tactile paving and ramps where necessary

- the continuation of footpaths through side road junctions with raised entry treatments at access roads (such as at Clonard, Dunnes Stores, Valebrook, Ashgrove Drive, Fox & Hounds Neighbour Centre, Brookvale, Ashgrove Villas, Meadow Park Road, Meelick Park, Mervue Lawn)
- the provision of a new surface water drainage system for part of the project
- the provision of a new low energy LED public lighting scheme for the length of the project
- the provision of new boundary treatments where garden walls and gates are set back, stock proof fencing, new bridge parapet walls at the Glen River bridge culvert

Existing roadside boundaries are to be set back to accommodate road widening, new bus lanes, new footpaths and cycle tracks. The pedestrian space will be formed of standard 100mm – 150mm depth of concrete footpath on 150mm deep granular material sub-base. The cycle tracks are likely to be constructed of 100mm deep bituminous macadam surfacing on 150mm deep granular material. The bus lanes and carriageway space is likely to be constructed of 300mm depth of bituminous road paving material on various depths of granular layers. Existing trees and hedgerows that are to be removed as part of the works will be replaced by similar native variety semi-mature trees and hedging.

Resurfacing of the existing carriageway is to comprise of milling and overlay of the existing road with minimum 40mm to 250mm maximum of asphaltic concrete (bituminous layers).

2.3 PLANT & CONSTRUCTION MATERIALS REQUIRED

The type of plant and machinery required will be typical civil engineering construction plant and equipment for paving and structure erection, 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

- 40 tonne Mobile Crane
- 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, recycled stone, imported and reused rock fill, imported and reused top soil, concrete blocks, paviors and sets, natural stone paviors and sets, precast concrete kerbs, manhole bases, covers, precast concrete culverts, pipes, precast concrete services chambers, PVC-u ducts & chambers, PVC-u drainage channels with galvanised steel covers, galvanised metal chamber covers, galvanized, powder-coated street lighting columns and traffic signal poles, galvanised steel sign posts and metal traffic signs, bituminous road paving materials, thermoplastic road marking materials, LED lighting lanterns & electrical equipment, traffic signals & controller electronic equipment, galvanised metal field gates, driveway gates and posts.

2.4 SITE PERSONNEL

At its peak it is expected that there will be approximately 30 to 50 personnel on site full time. The personnel will consist of general operatives, skilled operatives and tradesmen, apprentice tradesmen, machine operators, truck drivers, engineers, technicians, surveyors and construction managers.

2.5 DURATION OF CONSTRUCTION PHASE

It is estimated that the construction process will take up to 12 months.

3.0 DESCRIPTION OF THE PROJECT SITE

The project site is located within at the northern end of Cork City in the north-eastern suburbs. The site lies within the Cork City northeast area of the expanded city boundary. The strategic transport corridor runs along the R614 Ballyhooly Road from its junction with the R635 North Ring Road and terminates in the vicinity of the junction with Mervue Lawn. The Ballyvolane Road to the northwest of Ballyvolane Shopping Centre also forms part of the strategic transport corridor.

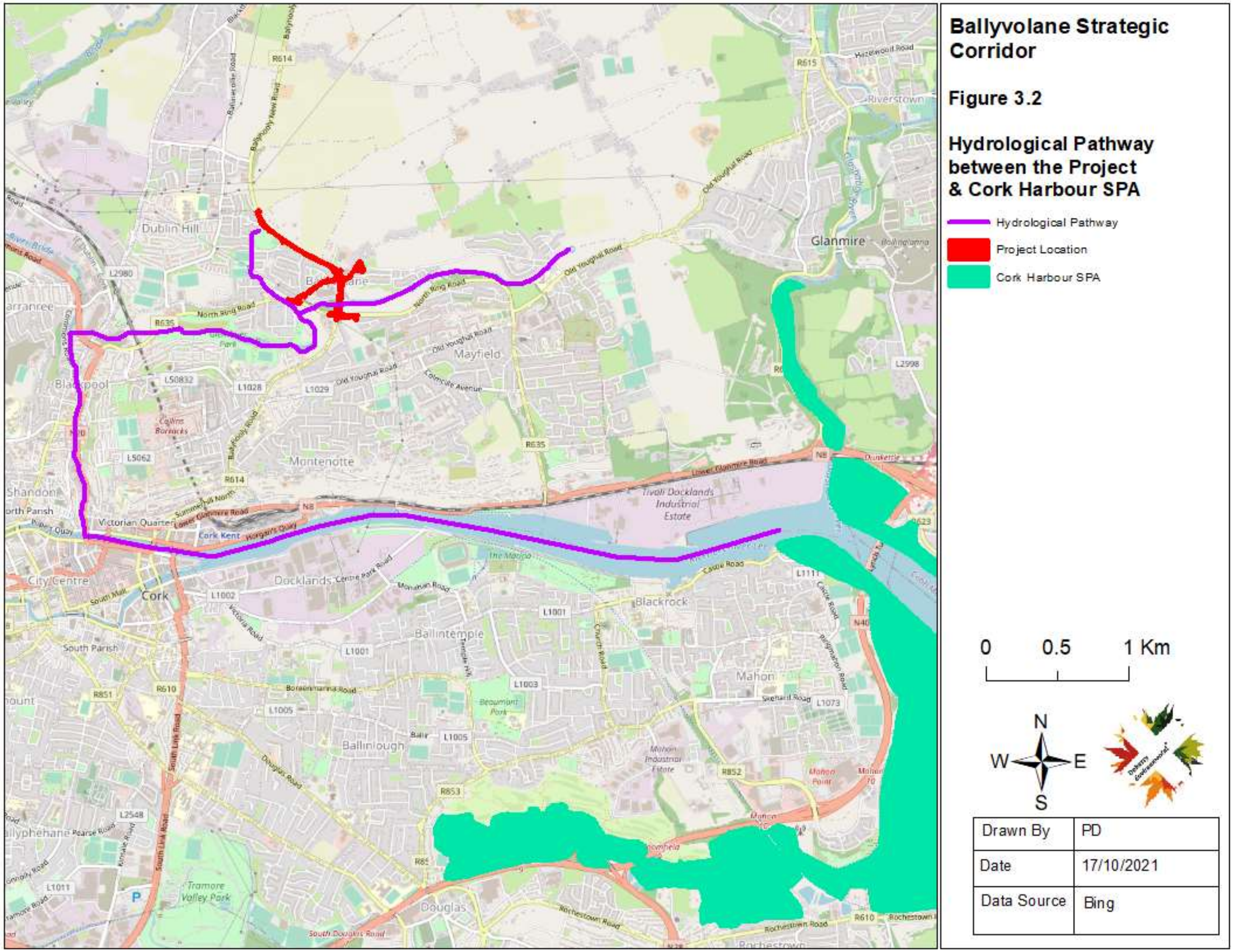
The land cover along the route is dominated by buildings and artificial surfaces (BL3) to the south and west and improved agricultural grassland and arable land to the east of the Ballyhooly Road.

The principal feature of semi-natural habitat in the wider area surrounding the corridor is the Glen River valley located to the east of Ballyhooly Road towards the southern end of the corridor. Semi-natural habitats occurring within the Glen River Valley include riparian woodland, reed and large sedge swamp and scrub. These habitats are of local importance (higher value). No element of the works will impinge on these semi-natural habitats of the Glen River. The bridge over the Glen River along the Ballyhooly Road will be widened. The widening will be completed along the west side of the road and will not involve any instream works.

The project site is located within the River Bride sub-catchment (Water Framework Directive (WFD) catchment code: Kiln_SC_010). The Glen River, which flows through an existing pipe culvert under the Ballyhooly Road flows east to west and drains into the Bride River at Blackpool. The Glen River flows through the Glen Park to the west of the project site. The river channel is modified in the park with a series of wetlands and ponds being fed by the river. The ponds act as a depositing environment along the Glen River, allowing for the settlement and attenuation of suspended materials in the pond and wetland area. The Glen River drains into the Cork City section of the Bride River to the west of Glen Park. The Cork City section of the Bride River flows south from Blackpool, through culverted sections and drains into the River Lee at Christy Ring Bridge.

The River Lee in turn drains into Cork Harbour, within which is located the Cork Harbour SPA and the Great Island Channel SAC.

The hydrological pathway between the project site and the River Lee and the European Sites at Cork Harbour is shown on Figure 3.2.


Ballyvolane Strategic Corridor
Figure 3.2
Hydrological Pathway between the Project & Cork Harbour SPA
Hydrological Pathway
Project Location
Cork Harbour SPA
0 0.5 1 Km
N
W
E
S
Drawn By
PD
Date
17/10/2021
Data Source
Bing
Dublin Hill
Glanmire
Mayfield
Montenotte
Blackpool
Tivoli Docklands Industrial Estate
Docklands
Cork
City Centre
Blackrock
Ballintemple
Mahon
Ballinlough
Douglas
Tramore Valley Park

4.0 IS THE PROJECT DIRECTLY CONNECTED WITH OR NECESSARY FOR THE CONSERVATION MANAGEMENT OF EUROPEAN SITES

Given the description of the proposed project in Section 2 above it is clear that the project is not directly connected with or necessary for the management of any European Sites.

5.0 IDENTIFY EUROPEAN SITES IN THE ZONE OF INFLUENCE OF THE PROJECT

Current guidance on undertaking EU Habitats Directive Article 6 Assessments advises that all European Sites occurring within the zone of influence of a project site should be included within a Screening Assessment (DOEHLG, 2010; OPR, 2021). For certain projects this distance could be low at less than 100m while for others it could range further afield, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects.

Three European Sites occur within the wider area surrounding the project site. These are the Blackwater River SAC (located approximately 12.3km to the north), Great Island Channel SAC (located approximately 7km to the east over land) and the Cork Harbour SPA (located approximately 3km to the east over land). The location of these three European Sites with respect to the project site are shown on Figure 5.1.

All other European Sites are located at a remote distance from the project site (i.e. at distance greater than 15km) and are not connected to the project site via any impact pathways. The Blackwater River SAC and the Great Island Channel SAC are also located at a remote distance from the project site and are not connected by any pathways to the project site.

As the project site is not located within or bounding a European Site there will be no potential for the project to result in direct impacts to European Sites. Thus, this Screening exercise focuses on investigating whether the project will have the potential to result in indirect effects to European Sites or effect mobile species associated with European Sites beyond the boundaries of their designated conservation areas.

A source-pathway-receptor model has been used to establish which, if any, European Sites could occur within the sphere of influence of potential indirect impacts. Under such a model the project, as described in Section 3 of this Screening Report, represents the source.

Potential impact pathways are restricted to hydrological and aerial pathways as these represent the only pathways that could potentially link the project site to 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 hydrological pathways establish a link between the project and the European Site. Given the distance of the project site from the surrounding European Sites (i.e. approximately 3km at the nearest point) emission pathways from the project are restricted to hydrological pathways and there will be no potential for other emissions such as noise, air or visual emissions to function as pathways between the project site and the surrounding European Sites.

Table 5.1 provides a determination as to whether each European Site within a 15 km buffer distance of the project site occur within the sphere of influence of the project. This determination has been undertaken in line with the following assessment questions:

- Is there an emissions pathway linking the Project site to European Sites?
- Are qualifying habitats of these European Sites connected to the project site via emissions pathways?
- Does the project site have the potential to interact with Annex II qualifying species/ special conservation interest species of these European Sites?

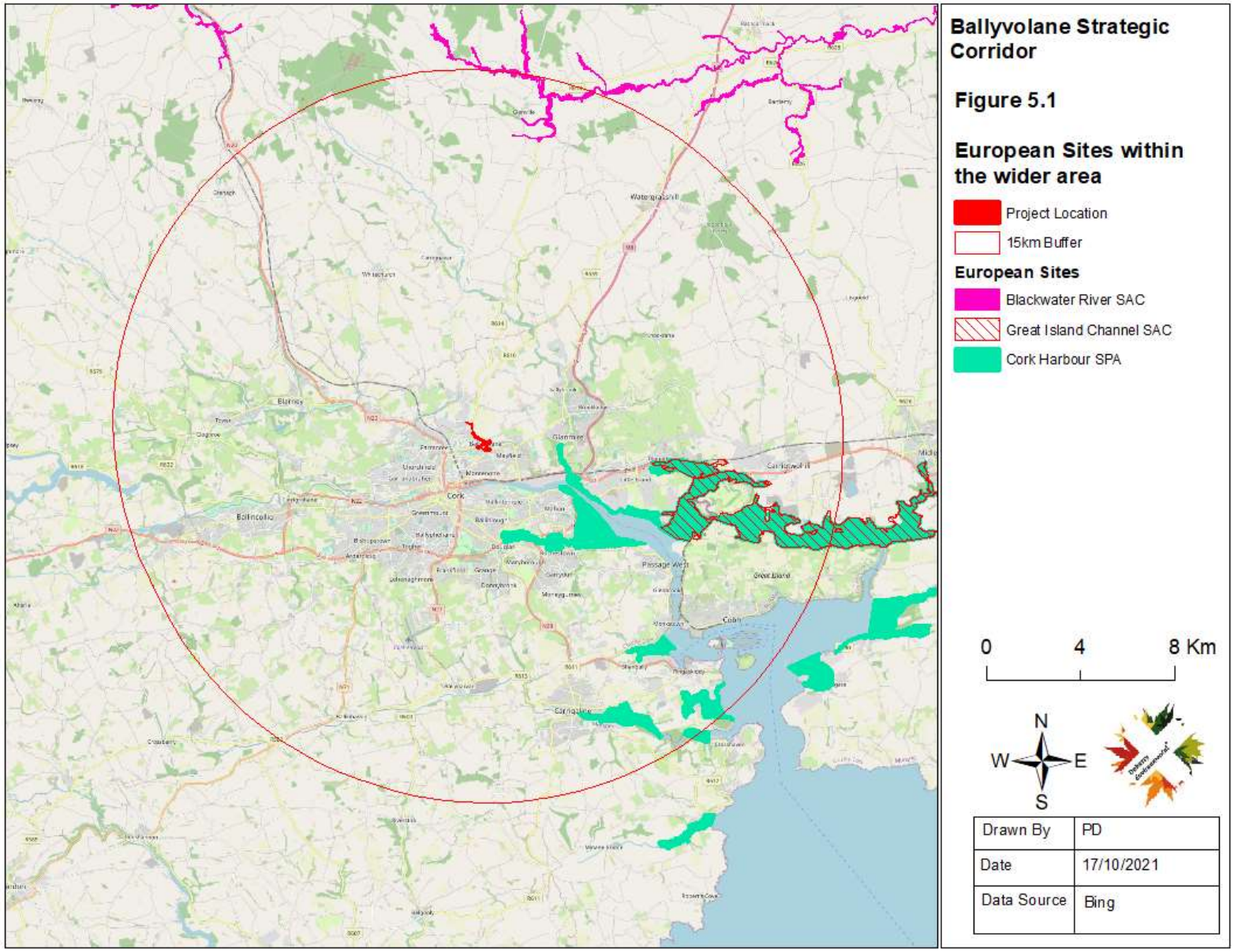

Ballyvolane Strategic Corridor
Figure 5.1
European Sites within the wider area
Project Location
15km Buffer
European Sites
Blackwater River SAC
Great Island Channel SAC
Cork Harbour SPA
0
4
8 Km
N
W
E
S
Drawn By
PD
Date
17/10/2021
Data Source
Bing

Table 5.1: Identification of European Sites within the Projects Zone of Influence

European Sites	Distance from Project Site	Hydrological Pathway	Do qualifying habitats occur within the zone of influence of the project.	Does the Project have the potential to interact with Qualifying Species	Do European Sites occur within the Projects Zone of Influence?
Cork Harbour SPA	3km over land; 8 km downstream.	Yes, a hydrological pathway connects the project site to this SPA. The Glen River which flows under the project site drains into the Bride River which in turn drains into the lower River Lee. Sections of the Cork Harbour SPA occur along the River Lee estuary to downstream of the Bride River and River Lee estuary confluence. The nearest part of the SPA downstream from the project site is approximately 11km downstream.	Yes. Qualifying wetland habitats of the SPA occur downstream of the River Lee along the Lee Estuary.	Yes. Special conservation interest bird species of the SPA (which are listed in Section 6 below) occur downstream of the River Lee along the Lee Estuary.	Yes. A hydrological pathway links the project to this European Site. The next step of this screening examines whether it can or cannot be ruled out, on the basis of objective information that the hydrological pathway has the potential to function as an impact pathway that could result in significant indirect impacts to the special conservation interest bird species and wetland habitats for the SPA.

European Sites	**Distance from Project Site**	**Hydrological Pathway**	**Do qualifying habitats occur within the zone of influence of the project.**	**Does the Project have the potential to interact with Qualifying Species**	**Do European Sites occur within the Projects Zone of Influence?**
Great Island Channel SAC	7km over land; 13 km to the east over water.	Yes, there is a hydrological pathway connecting the project site to this SAC via the Bride River and the Lee River estuary and Lough Mahon/Cork Harbour. The nearest point of this SAC to the project site along the hydrological pathway is approximately 17km. While there is a hydrological pathway between the project site and this SAC, this pathway does not have the potential to function as an impact pathway. Hydrodynamic modelling of Cork Harbour has shown that the Great Island Channel is influenced by tidal flows with little influence on this area of the harbour by freshwater inputs from the River Lee (see T.J. O'Connor & Associates Consulting Engineers, 2009). Given the tidal dominance on hydrodynamics and water quality in the Great Island Channel, along with	No. The qualifying habitats of this SAC are: • Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] As outlined in the preceding column there will be no potential for the discharges from the project site to influence the status of waters occurring within the SAC.	No. No qualifying species are listed as qualifying features of interest for this SAC	No. There is no function hydrological pathway linking the project site to this SAC.

European Sites	**Distance from Project Site**	**Hydrological Pathway**	**Do qualifying habitats occur within the zone of influence of the project.**	**Does the Project have the potential to interact with Qualifying Species**	**Do European Sites occur within the Projects Zone of Influence?**
		the imperceptible volumes of surface water generated at the project site during the construction and operation phases (relative to those occurring within the Lee Estuary and the harbour) it is concluded that no functional surface water hydrological pathway links the project site to this SAC.			
Blackwater River SAC	12.3km to the north	No. This SAC is located in a separate surface water catchment to the project.	No. This SAC and its qualifying habitats are located in a separate surface water to the project and at a significant distance from the project site.	No. The qualifying species of this SAC are located in a separate surface water catchment and at a significant distance from the project site.	No.

6.0 CORK HARBOUR SPA BASELINE

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 zone 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 DESCRIPTION OF ELEMENTS OF THE PROJECT THAT COULD POTENTIALLY GIVE RISE TO LIKELY SIGNIFICANT EFFECTS TO FEATURES OF INTEREST

The typical potential effects of construction activities, such as those associated with the proposed project, that could result in likely significant effects to the River Lee section of the Cork Harbour SPA relate to the transport of contaminants generated at the project site downstream, via the hydrological pathway, to the River Lee estuary. In the event that a contamination event was perceptible downstream at the River Lee Estuary it could, in theory, result in or contribute to the deposition of contaminants within wetland habitats relied upon by special conservation interest bird species within this section of the SPA. The ongoing discharge of such contaminant to this section of the SPA could over time result in adverse changes to the populations and distribution of special conservation interest bird species that rely on the Lee Estuary section of the SPA.

The potential for the project to result in the release of contaminated surface water from the project site to the River Lee catchment and downstream to the River Lee estuary is examined in Section 8.0 below.

8.0 EXAMINATION OF LIKELY SIGNIFICANT EFFECTS TO THE CORK HARBOUR SPA

Given that the project is not located within or adjoining the Cork Harbour SPA it will not have the potential to result in direct impacts in the form for physical habitat loss, degradation or disturbance to these European Sites. Thus, this Screening Report examines the potential for the project to result in likely significant effects to this SPA by investigating whether the hydrological pathway linking the project site to the SPA has the potential to function as an effective hydrological pathway. The potential for the hydrological pathway to function as an impact pathway is examined in the following subsection.

8.1 EXAMINATION OF THE HYDROLOGICAL PATHWAY TO FUNCTION AS AN IMPACT PATHWAY

The hydrological pathway linking the project site to the Cork Harbour SPA is established by its presence in the River Lee Catchment and the presence of a hydrological pathway between

the project site and the Cork Harbour SPA via the Glen River, the Bride River and the lower River Lee. However it is noted that prior to the confluence of the Glen River, which will receive runoff from the project site, and the Bride River, the Glen River flows into a wetland area and a series of ponds within Glen Park. The pond and the associated wetland habitat at Glen Park, downstream of the project site, are representative of a depositing environment. In light of this and given the low volume of surface water runoff that will be generate from the project site footprint during works and discharged to the Glen River along with the low volume of flows within this river, it is predicted that any surface water draining from the project site will be effectively attenuated and deposited within the pond and associated wetland habitat along Glen Park, thus effectively breaking the hydrological pathway between the project site and further downstream along the River Lee catchment. Thus in the unlikely event that contaminated surface water runoff is discharged from the project site, its flow downstream along the River Lee catchment and to the River Lee estuary will be attenuated by the presence of the ponds and wetland habitat along Glen Park. Given the presence of this feature a short distance downstream of the project site, combined with:

- the low volumes of runoff to be discharged from the project site footprint within Glen River catchment relative to the overall volumes within the Lee catchment downstream from the project site. (It is considered that the relative volumes would, even in the absence of the hydrological break described above, provide sufficient assimilation of runoff from the project site. This point is also based on the relative small scale of the project, the limited quantities of potentially polluting materials that will be used or stored on the site at any one time) and the low base flow volume of the Glen River; and

- The absence of any use of cementitious materials will be required during the operation phase;

the hydrological pathway occurring between the project site and the Lee Estuary will not have the potential to function as an impact pathway.

8.2 IN-COMBINATION EFFECTS

A search of the Cork City Council's Planning Enquiries Portal has been completed to identify any other recent (within the last 5-years) planning approved projects that could combine with the proposed project to result in in-combination effects to the Glen River and the Cork Harbour

SPA. A number of recent project were identified with the majority being representative of small scale planning applications comprising extensions to existing residential dwellings. Such projects will not have the potential to combine with the current project to result in negative cumulative effects to European Sites. Three other projects of a larger scale were identified in the vicinity of the project site. These are listed below.

Planning Reference 18/38126: This project involved an application for permission to modify the plans granted under planning permission TP15/36588. The modification involved: 1) Changes to forecourt building layout resulting in increases to ground floor area of 27.43sqm and to first floor area of 12.88sqm including following additions: new porch, new electric room, new drive thru kiosk, altered north-east corner, all at ground floor level and new water tank room at first floor level. 2) Alterations to elevations of forecourt building including: new porch to south elevation, new electric room to west elevation, new drive thru kiosk to north elevation and changes to fenestration detail on east elevation. 3) New ESB MV substation with customer switchroom. A determination of the project's potential to result in likely significant effects, alone or in-combination with other plans or projects, to European Sites was completed by Cork City Council and it was found that due to the location of this project relative to the Cork Harbour SPA and the Great Island Channel SAC and related watercourses and to the nature and scale of this proposed development that this project will not have the potential, alone or in-combination with other plans or projects, to result in likely significant effects to European Sites. Given the findings of the screening determination for this project there will be no potential for the current project to combine with this project to result in cumulative negative impacts to these European Sites.

Planning Reference 16/5477: This project involved an application for planning permission for a development that comprised the demolition and redevelopment of the Lidl discount store at Ballyhooly Road. A determination of the project's potential to result in likely significant effects, alone or in-combination with other plans or projects, to European Sites was completed by Cork City Council and it was found that due to the location of this project relative to the Cork Harbour SPA and the Great Island Channel SAC and related watercourses and to the nature and scale of this proposed development that this project will not have the potential, alone or in-combination with other plans or projects, to result in likely significant effects to European Sites. Given the findings of the screening determination for this project there will be no potential for the current

project to combine with this project to result in cumulative negative impacts to these European Sites.

Planning Reference ABP-306325-20: This project involved an application for the proposed development of 753 no units at Lahardane and Ballincolly (Townlands), Ballyvolane, Cork City. In summary the proposed development includes: 67 no. detached units, 278 no. semi-detached units, 186 no. terrace units, 69 no. duplexes and 153 no. apartments; The construction of a local centre consisting of a doctors surgery, 2 no. retail units, community use and a crèche; Open spaces and play areas in addition to general landscaping, boundary treatments and landscaped parkland/ greenway. The proposed SHD application was granted conditional planning permission in May of 2020. A screening for Appropriate Assessment was carried out for this proposed development and found that the Cork Harbour SPA and the Great Island Channel SAC are the European Sites for which there is a likelihood of significant effects. An Appropriate Assessment was carried out to determine potential impacts the proposed development may have on the aforementioned European Sites and in overall conclusion, An Bord Pleanála was satisfied that the proposed development would not adversely affect the integrity of European Sites in view of the site's conservation objectives. Given the findings of the Appropriate Assessment for this project there will be no potential for the current project to combine with this project to result in cumulative negative impacts to these European Sites.

8.3 EXAMINATION OF THE PROJECT'S POTENTIAL TO RESULT IN LIKELY SIGNIFICANT EFFECTS TO THE CORK HARBOUR SPA SPECIAL CONSERVATION INTERESTS

The function of this Screening for Appropriate Assessment is to assess whether or not the project, alone or in combination with other plans or projects, is likely to have a significant effect on any European Site, in view of best scientific knowledge and the conservation objectives of European Sites and specifically the habitats and species for which the sites have been designated. The structural and functional elements of a European Site to maintain the favourable conservation status of qualifying features of interest are embedded into the list of detailed Site Specific Conservation Objectives for each of the site's interest features. As such the detailed Conservation Objectives of a European Sites represent the parameters against which an assessment of a project's potential to result in likely significant effects should be undertaken.

Site Specific Conservation Objectives have been prepared for the Cork Harbour SPA special conservation interests. An examination of the project's potential to undermine these site-specific conservation objectives is provided in Table 8.1 below.

Table 8.1: Examination of Likely Significant Effects Against the Site Specific Conservation Objectives for Qualifying Features Of Interest Occurring within the Zone of Influence of the Project

Attribute. No.	Attribute	Target	Assessment
Wetlands			
1	Habitat area	The permanent habitat area occupied by wetland habitat should be stable and not significantly less than the area of 2,587 hectares, other than that occurring from natural patterns of variation	The project is located at a remote distance from this habitat, the nearest community type being located approximately 11km downstream from the project. The project will not have the potential to result in changes to its extent of the wetland habitat occurring downstream within the Cork Harbour SPA.
Special conservation interest bird species			
2	Population trend	Long term population trend stable or increasing	The project is located at a remote distance from the wetland habitats of the River Lee estuary upon which waterbirds rely. No waterbirds of the SPA rely on lands occurring at or in the vicinity of the project site. The nearest known waterbird roost site downstream of the project is located approximately 11km downstream along the main channel of the River Lee estuary. Furthermore given the findings of the assessment of the hydrological pathway provided in Section 8.1 above there will be no potential for the project to indirectly influence the status of wetland habitats within the SPA, upon which these bird species rely.

3	Distribution	There should be no significant decrease in the range, timing or intensity of use of areas by special conservation interest bird species of the SPA occurring within the zone of influence other than that occurring from natural patterns of variation	For the reasons outlined for Attribute No. 3, the project will not have the potential, alone or in-combination with other plans and projects, to undermine this target.

9.0 SCREENING STATEMENT CONCLUSION: FINDING OF NO SIGNIFICANT EFFECTS

The project has been screened for its potential to result in likely significant effects to surrounding European Sites. As this project site is located approximately 3km from the nearest European Sites, a Source-Pathway-Receiver model was used to identify potential impact pathways linking the project site to European Sites. The potential impact pathways identified were restricted to a surface water hydrological pathway.

Three European Sites were identified as occurring within a 15km radius of the project site and of these two, the Blackwater River SAC and the Great Island Channel SAC, were identified as occurring outside the zone of influence of the project. Only the Cork Harbour SPA was identified as occurring within the zone of influence of the project.

The potential for the project to result in downstream effects to special conservation interests bird species and wetland habitats occurring downstream of the project site was screened out during this assessment. The reason for screening out likely significant effects downstream at key intertidal and roosting locations is based on an evaluation of the hydrological pathway linking the project site to the Lee Estuary. This evaluation has found that this hydrological pathway does not have the capacity to function as an impact pathway between the project site and the nearest section of the SPA downstream at the Lee Estuary.

The absence of a functional hydrological impact pathway between the project site and the Cork Harbour SPA will ensure that the project will not have the potential to result in likely significant effects to the future conservation status of special conservation interests for which the Cork

Harbour SPA is designated and will not undermine the achievement of the SSCOs for 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.

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