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Natura Impact Statement

PRESENTED TO

Marina Quarter Ltd.
Former Ford Distribution Site,
Ballintemple, Cork

November 2024

Environmental Consultancy Services

DOCUMENT CONTROL SHEET

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1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by McCutcheon Halley Planning, acting on behalf of Marina Quarter Ltd., to prepare an Appropriate Assessment Screening Report in relation to a Proposed Large-scale Residential Development (LRD) at the Old Ford Site, Centre Park Road, South Docklands, Cork. The AA Screening Report concluded that a degree of uncertainty exists in whether the Proposed Development could give rise to potentially significant effects on one nearby European site, namely:

- Cork Harbour SPA (004030).

Therefore, a Natura Impact Statement (NIS) has been prepared for the Proposed Development. The purpose of this NIS report is to provide information for the relevant competent authority to carry out a Stage 2 Appropriate Assessment in respect of the Proposed Development.

1.2 Quality Assurance and Competence

Enviroguide Consulting is a multi-disciplinary consultancy specialising in the areas of the Environment, Waste Management and Planning. All Enviroguide consultants carry scientific or engineering qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training and continued professional development.

Enviroguide Consulting as a company remains fully briefed in European and Irish environmental policy and legislation. Enviroguide staff members are highly qualified in their field. Professional memberships include the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association and Chartered Institute of Ecology and Environmental Management (CIEEM).

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. TR, Senior Ecologist with Enviroguide, undertook the Breeding Bird surveys and desktop research for this report. KM, and CRK, Ecologists with Enviroguide, undertook the bat survey for this project. WMC, Ecologist with Enviroguide, authored this report.

TR has a B.Sc. in Environmental and Natural Resource Management (Hons) and a Post-Graduate Diploma in Environmental Management with GIS. TR is an experienced Ecologist who has specialised in ornithology and terrestrial mammals with over 8 years' experience in ecological consultancy along with a lifetime of personal interest and experience in wildlife management. TR has extensive field experience with further experience and competencies in desktop research, preparing AA Screening Reports (AA), Ecological Impact Assessment Reports (EcIAs), Bird Activity Reports and detailed Species-Specific Maps. His ability to deal with and understand a range of species, survey methods and habitats is excellent, having an in-depth knowledge and understanding of EU and Irish legislation.

CRK is an intern Ecologist with an M.Sc. in Biodiversity and Conservation from Trinity College Dublin. CRK's experience as an ecologist is broad in both variety of ecological reports and literature, and field surveys conducted. CRK has experience in surveying habitats, birds, plants, bats, mammals and invasive species. In addition, CRK has experience in assessing welfare conditions of animals using behavioural repertoires as indicators. CRK's experience in ecological report writing extends from Research associated literature reviews to AA screening reports and Municipal District Summary reports.

KM is an intern Ecologist with a wealth of experience in desktop research, report writing, and QGIS mapping, as well as practical field and laboratory experience. Field experience includes bat surveys, freshwater macroinvertebrate surveys, fallow deer tagging in Pheonix Park, and trail camera set-up and analysis. KM has prepared several Municipal District Summaries and Stage I Appropriate Assessment Reports.

WMC has a B.Sc. in Applied Freshwater and Marine Biology from Galway-Mayo Institute of Technology. WMC has five years of experience in ecological surveying and in this time, he has covered a wide range of ecological topics including ornithological surveying, bat surveying, badger surveying/exclusions, otter surveying, macroinvertebrate surveying and habitat surveying among others. WMC has also completed the field and report work of numerous planning surveys including Preliminary Ecological Appraisals (PEA), Appropriate Assessment (AA), Natura Impact Statement (NIS) and Ecological Clerk of Works (ECoW) surveys.

1.3 Description of Proposed Development

1.3.1 Site Location

The development site is located in the south-eastern suburb of Cork City, approximately 2km from Cork City Centre, within the South Docklands area. The site is bound by an existing Strategic Housing Development (SHD) (ABP Ref: TA28.309059). to the west, and Centre Park Road to the north. The Proposed Development site is bordered by the Marquee Road to the southwest, and by a pedestrian trail to the southeast. Lee Rowing Club is adjoining the Proposed Development Site to the northeast. The existing SHD is in the early stages of the construction phase and backs directly onto the proposed site. The area is located within a 25-minute walk of Cork City Centre and within a 35-minute walk of Mahon Point. Both of which are significant employment centres. The total site area is 0.84 hectares.

The location of the site is presented in Figure 1 below.

1.3.2 Proposed Development Description

For context, a SHD application was submitted for the adjoining Site and granted permission with conditions in 2021 (ABP Ref: TA28.309059). The new development will include the following.

i. Permission for the construction of 176 no. 1, 2 and 3 bed apartment units in 2 no. blocks, 1 no. creche, 1 no. gym, a retail/café space and all associated ancillary development works.

1.3.2.1 Surface water

As outlined in the Infrastructure Design Report (IDR) accompanying this planning application prepared by DBFL Consulting Engineers (2024), the management of surface water for the proposed development has been designed to comply with the policies and guidelines outlined in the Cork City Development Plan Objectives 2022-2028. The guidelines require the following 4 main criteria to be provided by the design:

Criterion 1: Sustainable Urban Drainage Systems (SUDS) – for any new residential development it is required to incorporate SUDS by providing interception storage and treatment within the green roof, bio-retention/filter drains and green courtyard and garden.

Criterion 2: Discharging – to require that onsite petrol/interceptors and silt traps shall be installed to all significant road projects where surface water otherwise discharges to watercourse, to prevent hydrocarbon pollution of the water.

Criterion 3: Storm Water– satisfied by the development's surface water drainage design, planned flood routing, run-off contained within site and that flood management ensures that measures are implemented to protect property and infrastructure.

Criterion 4: Water quality– to support Irish water in its implementation of water quality for ground, surface, coastal and estuarine. To support mitigation and protection measures for all protected areas and associated source protection plan in line with the Water framework Directives.

In summary the design of the surface water network is aligned with the requirements of the Cork South Docklands Levels Strategy as set out in planning reference: ABP-3090059-20 and as stated by DBFL (2024). The surface water strategy for the proposed development incorporates SuDS features to reduce runoff and all surface water will be directed to the neighbouring SHD development where surface water will be attenuated to a volume of 1:100 years plus 20%. The previously granted SHD application has been designed to accommodate the addition of the subject Site and is under the same ownership, making the linkage of infrastructure possible in this case.

1.3.2.1.1 SUDS

1.3.2.1.1.1 SuDS 1: Extensive Green Roofs

Green roofs are extensive in the design of the development with the inclusion of bioretention areas, green podiums and filter drains included to provide attenuation, treatment and infiltration where possible.

1.3.2.1.1.2 SuDS 2: Attenuation Storage

The use of an approved infiltration/filtration type system to encourage infiltration and treatment of run-off.

1.3.2.1.1.3 SuDS 3: Planted roof area

Inclusion of a planted roof area with plants including mosses, sedums, herbs or grasses over a drainage layer and waterproofing membrane. To provide an intercept to treat, retain and reduce the volume of surface water runoff and reduction of peak flows.

1.3.2.2 Foul Drainage

It is understood that wastewater resulting from the Proposed Development will be treated at Cork City Waste Water Treatment Plant (WWTP) (Licence No. D0033-01) during the operational phase, before discharging to Lough Mahon transitional waterbody (Enviroguide, 2024). The current capacity of Cork City WWTP will be reduced as a result of the Proposed Development.

Further details on foul water are provided in the below summary which was taken from the IDR report accompanying the proposed development application (DBFL, 2024).

"*The proposed developments wastewater will be discharged to the Uisce Eireann 225 mm diameter foul sewer on Marquee Road via the proposed foul water network within the adjacent Fords SHD development.*

All matters relating to wastewater will be agreed with Uisce Eireann. A confirmation of feasibility was received from Irish Water confirming feasibility without need for any upgrade works.''

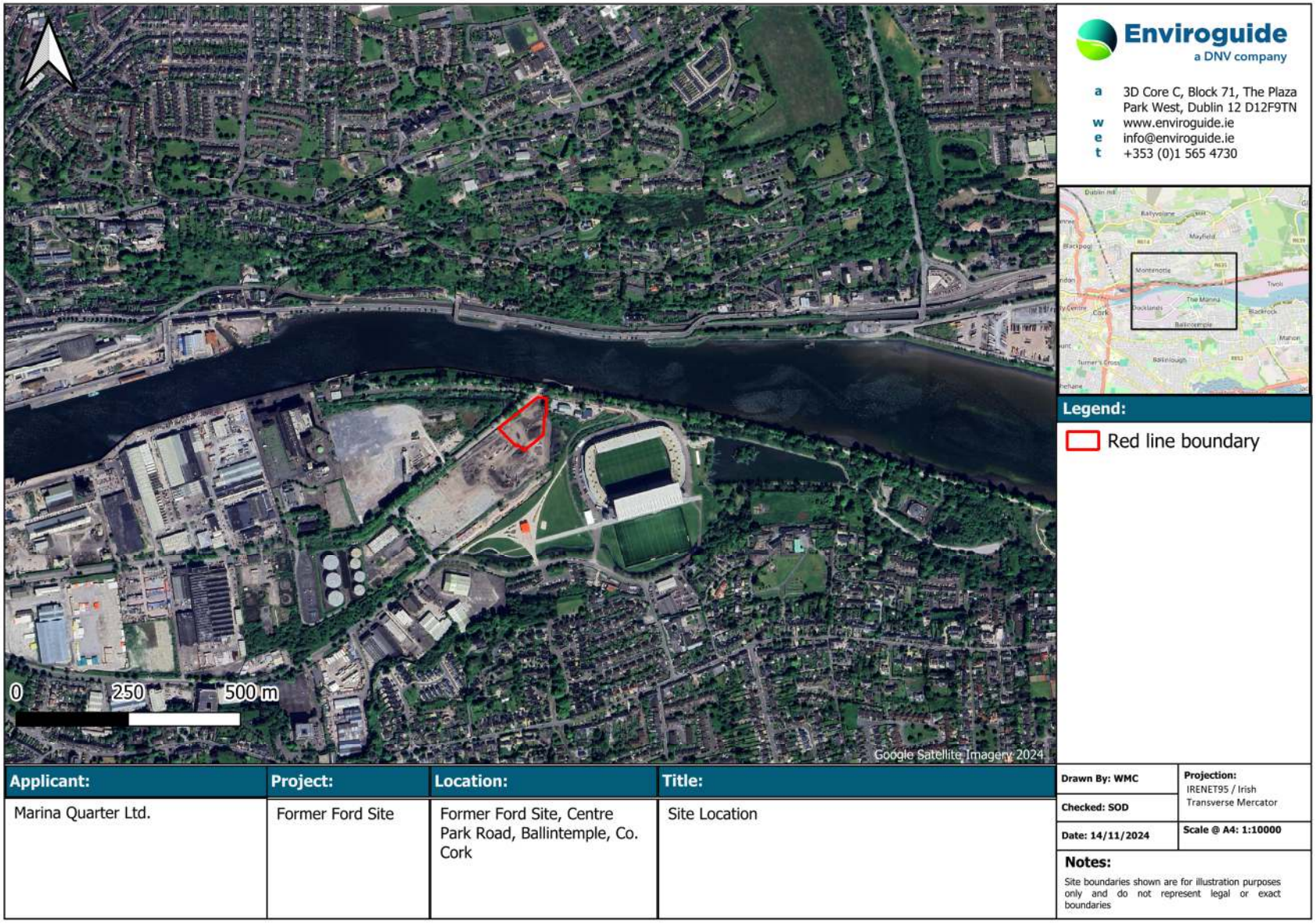

FIGURE 1. SITE LOCATION

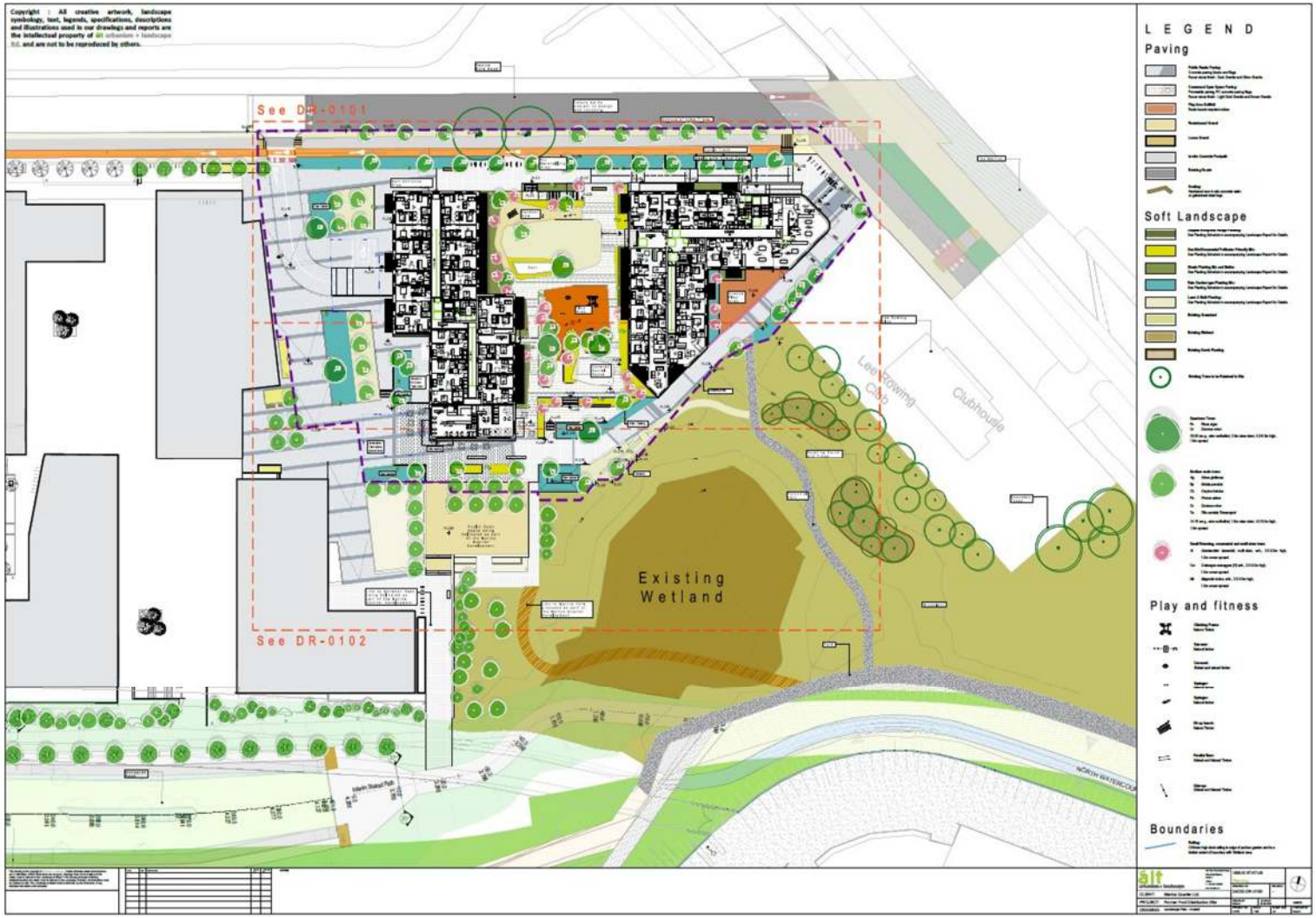

FIGURE 2. PROPOSED SITE LAYOUT (AIT, 2024).

2 LEGISLATIVE AND POLICY CONTEXT

2.1 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protected Areas (SPAs). The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011). It is the responsibility of each member state to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected sites throughout the European Community.

SACs and SPAs are collectively known as "Natura 2000" or "European" sites. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the sites; from these the conservation objectives of the site are derived.

An 'Appropriate Assessment' (AA) is an assessment required prior to the grant of planning permission to determine whether a plan or project, based on best scientific knowledge, will have an adverse effect on the integrity of a European site, either alone or in combination with other plans and projects. It is required for any plan or project not directly connected with or necessary to the management of a site but likely to have a significant effect on it.

An AA is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a Natura 2000 site. Paragraph 3 states that:

"*6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

2.1.1 Legislative Context

The obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended ("the 2000 Act"), and in particular Section 177T and Section 177V thereof in relation to Natura Impact Statements and Appropriate Assessment. The relevant provisions of Section 177T and 177V are set out below:

"***177T.—*** *(1) In this Part— (a) A Natura impact report means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites.*

(b) A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites.

(2) Without prejudice to the generality of subsection (1), a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites."

(3) …

(4) The applicant for consent for proposed development may, or if directed in accordance with subsection (5) by a competent authority, shall furnish a Natura impact statement to the competent authority in relation to the proposed development.

(5) At any time following an application for consent for proposed development a competent authority may give a notice in writing to the applicant concerned, directing him or her to furnish a Natura impact statement.

(6) ...

(7) (a) Without prejudice to subsection (1) a Natura impact report or a Natura impact statement shall include all information prescribed by regulations under section 177AD .

(b) Where appropriate, a Natura impact report or a Natura impact statement shall include such other information or data as the competent authority considers necessary to enable it to ascertain if the draft Land use plan or proposed development will not affect the integrity of the site."

"177V.— *(1) An appropriate assessment carried out under this Part shall include a determination by the competent authority under Article 6.3 of the Habitats Directive as to whether or not a draft Land use plan or proposed development would adversely affect the integrity of a European site and an appropriate assessment shall be carried out by the competent authority, in each case where it has made a determination under section 177U(4) that an appropriate assessment is required, before—*

(a) the draft Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent is given for the proposed development.

(2) In carrying out an appropriate assessment under subsection (1) the competent authority shall take into account each of the following matters:

(a) the Natura impact report or Natura impact statement, as appropriate;

(b) any supplemental information furnished in relation to any such report or statement;

(c) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura impact statement;

(d) any additional information furnished to the competent authority at its request in relation to a Natura impact report;

(e) any information or advice obtained by the competent authority;

(f) if appropriate, any written submissions or observations made to the competent authority in relation to the application for consent for proposed development;

(g) any other relevant information.

(3) Notwithstanding any other provision of this Act, or, as appropriate, the Act of 2001, or the Roads Acts 1993 to 2007 and save as otherwise provided for in sections 177X, 177Y, 177AB and 177AC, a competent authority shall make a Land use plan or give consent for proposed development only after having determined that the Land use plan or proposed development shall not adversely affect the integrity of a European site.

(4) Subject to the other provisions of this Act, consent for proposed development may be given in relation to a proposed development where a competent authority has made modifications or attached conditions to the consent where the authority is satisfied to do so having determined that the proposed development would not adversely affect the integrity of the European site if it is carried out in accordance with the consent and the modifications or conditions attaching thereto."

2.2 Policy Context

2.2.1 Cork City Development Plan

Policies and objectives of the Cork City Development Plan 2022 – 2028 that are of relevance to this Screening Report are outlined below:

- Under the EU Freshwater Fish Directive the River Lee is designated as a Salmonoid River from its source to Cork City Waterworks. This imposes an obligation to maintain specific water quality standards and to control pollution. Species of fish found along its length include Brook, Sea Lamprey and Salmon. In addition, the River Lee and its banks provide habitats, feeding and resting grounds for a variety of protected species of birds, bats and other mammals such as the otter.
- No plans, programmes, etc. or projects giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.

2.2.2 Cork City Biodiversity Action Plan 2021-2026

Cork City Biodiversity Action Plan aims to improve biodiversity through identifying measures to protect and enhance the biodiversity of Cork City. In addition to researching and disseminating information on the biodiversity of Cork City, promoting interest and knowledge of Cork City's biodiversity through training and education, and raising awareness and enjoyment of Cork City's biodiversity by encouraging participation and partnership amongst all.

2.3 Stages of Appropriate Assessment

The AA process is a four-stage process. Each stage requires different considerations, assessments and tests to ultimately arrive at the relevant conclusion for each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages of an AA, can be summarised as follows:

- **Stage 1: *Screening***. The Screening for AA considers whether a plan or project is directly connected to or necessary for the management of a European site, or whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.
- **Stage 2: *Natura Impact Statement (NIS).*** Where Stage 1 determines that significant effects are likely, uncertain or unknown, the preparation of a NIS is required. The NIS must include a scientific examination of evidence and data to classify potential impacts on any European site(s) in view of their conservation objectives in the absence of mitigation. The NIS will identify appropriate mitigation to remove the potential for likely significant adverse effects on any European site(s). If the competent authority determines that the plan or project would have an adverse effect on the integrity of any European site(s) despite mitigation, it can only grant consent after proceeding through stages 3 and 4.
- **Stage 3: *Assessment of alternative solutions***. If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- **Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain***. The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European site, where no less damaging solution exists.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. First the project should aim to avoid any negative effects on European sites by identifying possible effects early in the planning stage and designing the project to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s)

remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, a refusal for planning permission may be recommended. In this case, the project will generally only be considered where no alternative solutions are identified and the project is required for IROPI, or, in the case of priority habitats, considerations of health or safety, or beneficial consequences of primary importance for the environment or to other IROPI. Then compensation measures are required for any remaining adverse effects.

2.4 Stage 1: Appropriate Assessment Screening Conclusion

An AA Screening Report was prepared for the Proposed Development by Enviroguide Consulting on the 8th of November 2024.

The conclusion of the AA Screening Report is as follows:

"*The Proposed Development at Centre Park Road, Ballintemple, Cork has been assessed taking into account:*

- *The nature, size and location of the proposed works and possible impacts arising from the construction works.*
- *The QIs and conservation objectives of the European sites.*
- *The potential for in-combination effects arising from other plans and projects.*

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that the possibility ***cannot be excluded*** *that the Proposed Development will have a significant effect on any of the European sites listed below:*

- *Cork Harbour SPA (004030)*

On the basis of the screening exercise carried out above, it can be concluded, on the basis of the best scientific knowledge available and objective information, that the possibility of any significant effects on the above listed European sites, whether arising from the project itself or in combination with other plans and projects, cannot be excluded in light of the above listed European sites' conservation objectives. Thus, there is a requirement to proceed to Stage 2 of the Appropriate Assessment process; and a NIS has been prepared and accompanies this submission under separate cover."

As such, this NIS will assess the potential effects of the Proposed Development on

- Cork Harbour SPA (004030).

This Site is linked to the Proposed Development via a hydrological pathway.

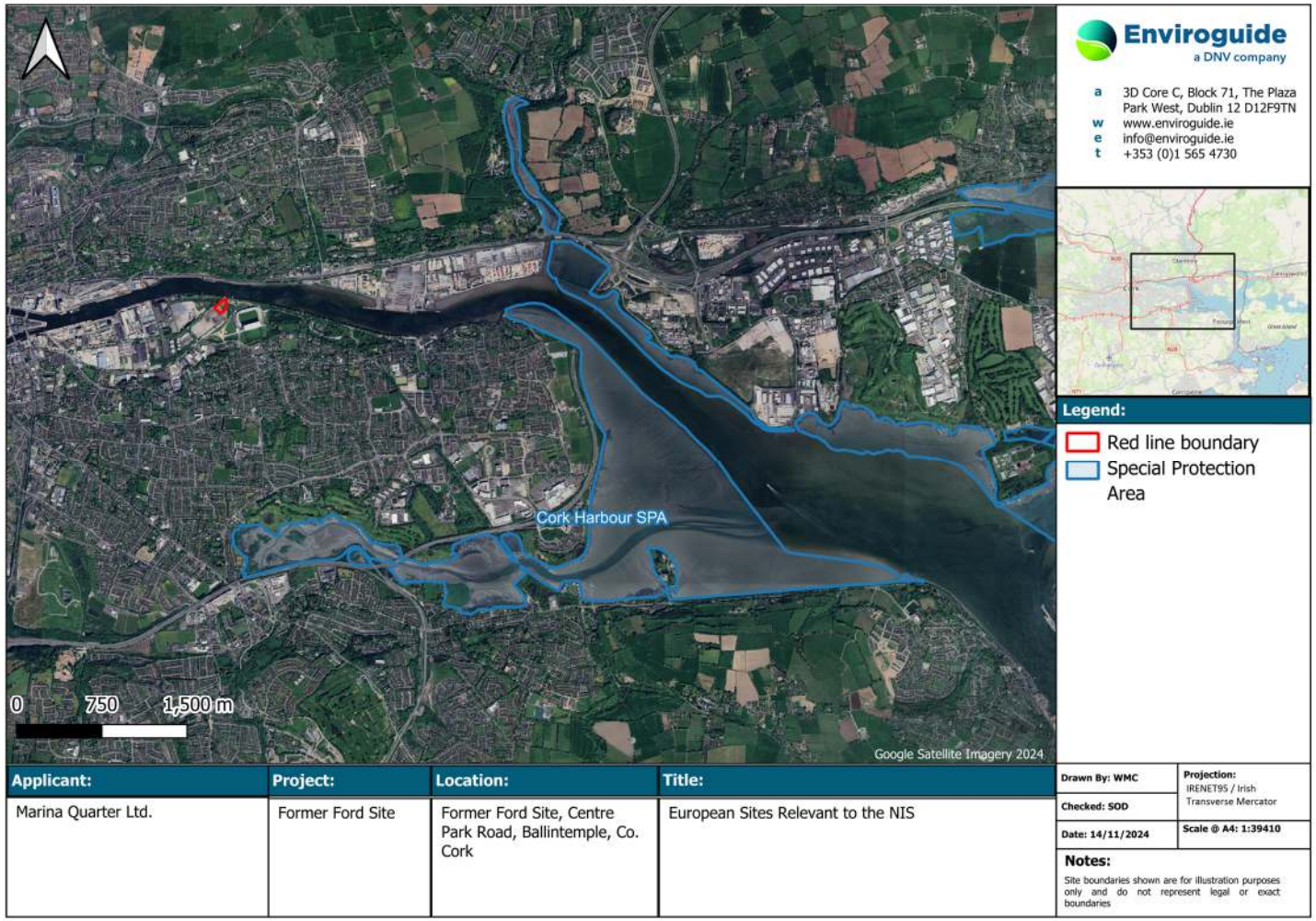

FIGURE 3. RELEVANT EUROPEAN SITES AS IDENTIFIED IN AA SCREENING (ENVIROGUIDE 2024)

3 NIS METHODOLOGY

3.1 Guidance

This NIS has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10;
- *Communication from the Commission on the precautionary principle* (European Commission, 2000);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019);
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021)*;
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021;* and
- *Amendments to section 42 of the Planning and Development Act 2000, as amended and associated Planning and Development Regulations 2001. Department of the Environment, Heritage and Local Government. (2021). Circular Letter: EUIPR 01/2021.*

3.2 NIS Steps

This NIS has been prepared following the steps described below:

- Description of the baseline existing environment at the Site of the Proposed Development;
- Review and description of available data for the relevant European site(s) potentially affected as identified in the Screening Report (Enviroguide 2024);
- Identification and description of potential effects on the relevant European site(s) and their designated QIs/SCIs;
- Assessment of the likely significance of the effects and/or impacts identified on the relevant QIs/SCIs in view of their Site Specific Conservation Objectives (SSCOs) where available;
- Description and characterisation of other projects or plans that in combination with the Proposed Development have the potential for having significant effects on the relevant QIs/SCIS;

- Identification of appropriate mitigation measures to remove the likelihood of significant effects on any European site(s) and their QIs/SCI; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects once mitigation measures are adhered to.

3.3 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources relevant for the completion of the NIS. The desk- top study, completed in November 2024, relied on the following sources:

- Information on the network of European sites, relevant boundaries, QIs and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at *www.npws.ie* and the European Environment Agency (EEA) at *https://natura2000.eea.europa.eu/;*
- Information on the status of EU protected habitats and species in Ireland, obtained from the NPWS Article 17 reports;
- Text summaries of the relevant European sites taken from the respective Site Synopses for each site, available at *www.npws.ie*;
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at www.*gis.epa.ie*;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at *www.gsi.ie*;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland; and
- Information on the extent, nature and location of the Proposed Development, provided by the applicant and their design team.

A comprehensive list of all the specific documents and information sources consulted in the completion of this report is provided in Section 6 - References.

3.4 Field Surveys

A range of field surveys have been carried out at the Site to date. These are summarised in Table 1. For full details on the methods and results of the fields surveys listed, please refer to Chapter 11, Biodiversity of the Environmental Impact Assessment Report (EIAR) accompanying this application under separate cover. All surveys were carried out at the appropriate time of year by suitably qualified ecologists. Results relevant to this NIS have been summarised in section 4.2.

TABLE 1. FIELD SURVEYS UNDERTAKEN AT THE PROPOSED DEVELOPMENT SITE.

Survey	Surveyor	Dates
Breeding Bird Survey	Enviroguide Consulting (TR)	30th May 2024, 26th June 2024 & 31st July 2024
Habitats & Invasive Species	Enviroguide Consulting (TR)	9th May 2024

Survey	Surveyor	Dates
Bat Activity Survey	Enviroguide Consulting (TR), (WS), (KM), (CRK), (BMC)	30th of May 2024, 27th of June 2024 & 20th of August 2024

3.5 Impact Prediction

Potential impacts on the relevant European site(s) identified during the AA Screening are based on information regarding their QIs and/or SCI species, and the attributes and targets relating to their SSCOs where available. These have been informed by the desk study and any field surveys carried out prior to the preparation of this report.

Impact prediction is based on the Source-Pathway-Receptor (S-P-R) model. The following describes the steps of the S-P-R approach taken in this NIS:

- Potential sources of effects were identified based on the Proposed Development description and details, including changes to potentially suitable ex-situ habitats at the Site (i.e., habitats utilised by Species of Conservational Importance (SCI) bird species outside of their designated SPAs).
- Up-to-date GIS spatial datasets for water catchments as well as any information from relevant site investigations and/or field surveys were used to identify the QIs/ SCIs within the relevant European site(s) that have a notable S-P-R connection to the Proposed Development:
    - The catchment data were used to establish or discount potential hydrological connectivity between the Proposed Development and any QIs/SCIs.
    - Groundwater and bedrock information used to establish or discount potential hydrogeological connectivity between the Proposed Development and any QIs/SCIs.
    - Air and land connectivity assessed based on Proposed Development details and proximity to QIs/SCIs.
    - Consideration of potential indirect pathways, e.g., impacts to flight paths, *ex-situ* habitats, etc.
- Identification of potential impacts for those QIs/SCIs linked to the Proposed Development via notable S-P-R connections.

Where the preceding steps identified any potential for adverse impacts on any QIs/SCIs for the relevant European site(s), appropriate mitigation measures to eliminate the potential for significant adverse effects are identified in this report.

3.6 Limitations

One limitation was encountered which may prevent robust conclusions being drawn as to the potential impacts of the Proposed Development on the relevant European sites.

- An extensive search of available datasets for records of rare and protected species within proximity of the Proposed Development has been undertaken as part of this assessment. However, the records from these datasets do not constitute a complete species list. The absence of species from these datasets does not necessarily confirm an absence of species in the area. This limitation is unlikely to be of significance due to the urban brownfield nature of the Site and the ecological surveys carried out on the Site which noted the presence of flora/fauna.

4 NATURA IMPACT STATEMENT

4.1 Existing Environment

4.1.1 Desk Study Results

4.1.1.1 Hydrology, Geology and Hydrogeology

The Site is located in the Lee, Cork Harbour and Youghal Bay Catchment (Catchment I.D 19) and in the Glasheen [Corkcity]_SC_010 Sub-catchment (Sub-catchment I.D.19_17) (EPA, 2024). The Lee Estuary Lower is located approximately 30m north of the site and flows east into Lough Mahon located approximately 3.1 km north-east of the Site (EPA, 2024).

The Bride (Cork City) River IE_SW_19B140300 is located approximately 1.5km north of the Site which flows southwest and ultimately discharges to the River Lee (North Channel) IE_SW_060_0950, which flows into the Lee Estuary Lower (EPA, 2024).

The EPA water quality monitoring data for the stations on the Lee Estuary Lower located closest to the Site is summarised in Table 2. The reported Q-value results indicate that water quality in the Lee Estuary Lower in the vicinity of the Site is moderate, the water quality of the more distant Bride (Cork City) River is classified as poor.

TABLE 2. EPA MONITORING STATIONS AND ASSIGNED Q VALUES

EPA Monitoring Station name	Station Code	Location from Site	Distance from Site	Assigned Q value
Lee (Cork) Estuary Lower – Tivoli	TW04003159LE2006	East downstream	330m	3 - 4 “Moderate”
Bride (Cork City) River – M13 Glen Rec. Park	RS19G090400	North-west upstream	1.6km	3 “Poor”

The Site of the Proposed Development is situated on the Lee Valley Gravel (IE_EA_G_094) groundwater body. The bedrock aquifer identified beneath the Site is mapped as “Locally Important – Bedrock which is Moderately Productive only in Local Zones” (Pl) (GSI, 2024).

The Groundwater Vulnerability Rating assigned to groundwater beneath the Site is mapped as “*Moderate” (M)* (GSI, 2024). The quaternary sediments beneath the

majority of the Site are mapped as Urban (GSI, 2024). The soil beneath the Site is mapped as "Made - Made Ground" (GSI, 2024). Based on groundwater levels in the Made Ground, the groundwater flows southwest away from the Lee Estuary Lower and towards the open drainage channels at the southeast and northwest of the site. These open drainage channels discharge into the Lee Estuary Lower. However, the volumes of discharge into the open drainage channels are deemed insignificant.

The Waterbody Status for river, groundwater, and transitional water bodies relevant to the Site as recorded by the EPA (2024) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003), Part IV of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 and Part IV of the European Communities Environmental Objectives (Groundwater) Regulations 2010, are provided in Table 3.

TABLE 3. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (km)	WFD water body status (2016-2021)	WFD 3rd cycle Risk Status	Hydraulic Connection to the Site
Surface Water Bodies						
Bride (Cork City) River	IE_SW_19 B140300	North	1.6	Poor	At risk	Upstream tributary of Lee (Cork) Estuary Lower
Transitional Water Bodies						
Lee (Cork) Estuary Lower	IE_SW_060_0900	North	0.03	Moderate	At risk	Downstream of the Site
Groundwater Bodies						
Lee Valley Gravels	IE_SW_G_094	N/A	N/A	Good	At risk	Underlying groundwater-body

4.1.2 Site Drainage

In the previous neighbouring SHD EIAR, an open drainage channel was found along the northwest boundary of the site, and a second open drainage channel was identified along the southeastern edge of the site. Both channels flow northeast. The southern channel flows directly into the Atlantic Pond (350m east of the site), which discharges into the Lee (Cork) Estuary Lower. Historical maps suggest the northern channel is connected to the Tedcastles Channel located on the northern side of Centre Park Road via a culvert under Centre Park Road "The Centre Park Road Culvert". The Tedcastles channel discharges to the Lee Estuary Lower via a pond in the Tedcastles site.

During a site walkover in September 2019, it was noted that the Tedcastles pond is controlled by a one-way valve which is designed to stop water flowing back into the pond during high tide, however, during the site visit the valve was not functioning, and the pond was seen to fill with water from the River Lee during high tide.

4.2 Relevant Field Survey results

4.2.1 Fauna

4.2.1.1 Breeding Bird Surveys

To inform the evaluation of the on-Site habitats for breeding birds, three breeding bird survey visits were made to the Site and surrounding areas during the 2024 breeding season, between May and July. The ZOI in relation to birds was set at 500m based on the Proposed Development description and the avifauna species most likely to be encountered on Site and in the surrounding hinterland. The ZOI was chosen with cognisance to guidelines set out by the Bird Survey & Assessment Steering Group (2022) and all surveys were carried out by experienced and suitably qualified ornithologists (TR & BMc) with c. 20 years' experience between them in their field.

Breeding Bird Surveys were carried out in accordance with and adapted from standard literature and guidelines set out in for example Gilbert et. al. (1998), Bibby et al (2000), Gillings et al (2007) and Birdwatch Ireland & National Parks and Wildlife Service (2012), which has subsequently been adapted into guidelines for ecological consultants by the Bird Survey & Assessment Steering Group (2022).

A total of 24 bird species were recorded during breeding bird surveys, the majority of which were recorded outside the Proposed Development area. No breeding activity was recorded for any bird species within the confines of the Proposed Development Site. Several common species were recorded within the 500m survey radius, and those species confirmed as breeding during breeding bird surveys as well as those recorded as present/possibly breeding during the survey period are outlined in the Chapter 11 Biodiversity, accompanying this application.

Chapter 11 also lists the species of most conservation concern (where relevant) recorded within 500m of the Site boundary.

No bird species of Special Conservation Interest of relevant designated areas (Cork Harbour SPA) were recorded on Site. One SCI species of Cork Harbour SPA, Grey Heron (*Ardea cinerea*), was confirmed as breeding off-Site c.430m to the east of the Site boundary at Atlantic Pond. One observation of a foraging individual juvenile was made in the swamp area directly adjacent to the Site during surveys.

The nature of the small scale of the swamp area adjacent to the Site and the current favourable conservation status of Grey Heron (Gilbert et al., 2021), coupled with the extensive availability of suitable breeding and roosting habitat within the broader surrounds of the Site mean the conservation objectives of Cork harbour SPA are assessed as not being affected by the Proposed Development as a result of the presence of foraging Grey Heron in the swamp area adjoining the Site.

4.3 Summary Of Relevant European Sites

The following descriptions of the relevant habitats and species occurring within the European site(s) considered in this NIS have been extracted from the Standard Data Forms (EEA 2023), Site Synopses (NPWS 2019a) and any supporting documents available for the relevant site(s).

4.3.1 Cork Harbour SPA (004030)

The following descriptions of the Cork Harbour SPA are extracted from the Site Synopsis (NPWS 2014) for the site:

> *"Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets.*
>
> *Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor and Corophium volutator. Green algae species occur on the flats, especially Ulva spp. Cordgrass (Spartina spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.*
>
> *Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary."*

4.3.2 Qualifying Interests and Conservation Objectives

The QIs/SCIs and their respective conservation objectives for each of the relevant European site(s) are detailed in Table 4 below.

TABLE 4. QUALIFYING INTERESTS (QIS) / SPECIAL CONSERVATION INTERESTS (SCIS) AND THEIR CONSERVATION OBJECTIVES FOR THE RELEVANT EUROPEAN SITES. THE CONSERVATION STATUS OF EACH QI / SCI WAS SOURCED FROM THE RELEVANT STANDARD DATA FORM(S) (SOURCE: EEA (2023)) AND THE LATEST NATIONAL STATUS IS TAKEN FROM THE LATEST ARTICLE 17 REPORT (NPWS, 2019A & 2019B) AND BOCCI[1] RESPECTIVELY.

QI / SCI (* = priority habitat)	Conservation Status	National Status	Conservation Objective
Cork Harbour SPA (004030)			
Little Grebe (*Tachybaptus ruficollis*) [A004]	Least Concern	Green	To maintain the favourable conservation condition of Little Grebe in Cork Harbour SPA.
Great Crested Grebe (*Podiceps cristatus*) [A005]	Least Concern	Green	To maintain the favourable conservation condition of Great Crested Grebe in Cork Harbour SPA.
Cormorant (*Phalacrocorax carbo*) [A017]	Least Concern	Amber	To maintain the favourable conservation condition of Cormorant in Cork Harbour SPA.
Grey Heron (*Ardea cinerea*) [A028]	Least Concern	N/A	To maintain the favourable conservation condition of Grey Heron in Cork Harbour SPA.
Shelduck (*Tadorna tadorna*) [A048]	Least Concern	Amber	To maintain the favourable conservation condition of Shelduck in Cork Harbour SPA.
Wigeon (*Anas penelope*) [A050]	Least Concern	Amber	To maintain the favourable conservation condition of Wigeon in Cork Harbour SPA.
Teal (*Anas crecca*) [A052]	Least Concern	Amber	To maintain the favourable conservation condition of Teal in Cork Harbour SPA.
Pintail (*Anas acuta*) [A054]	Least Concern	Amber	To maintain the favourable conservation condition of Pintail in Cork Harbour SPA.
Shoveler (*Anas clypeata*) [A056]	Least Concern	Red	To maintain the favourable conservation condition of Shoveler in Cork Harbour SPA.
Red-breasted Merganser (*Mergus serrator*) [A069]	Near Threatened	Amber	To maintain the favourable conservation condition of Red-breasted Merganser in Cork Harbour SPA.
Oystercatcher (*Haematopus ostralegus*) [A130]	Vulnerable	Red	To maintain the favourable conservation condition of Oystercatcher in Cork Harbour SPA.
Golden Plover (*Pluvialis apricaria*) [A140]	Least Concern	Red	To maintain the favourable conservation condition of Golden Plover in Cork Harbour SPA.
Grey Plover (*Pluvialis squatarola*) [A141]	Least Concern	Red	To maintain the favourable conservation condition of Grey Plover in Cork Harbour SPA.

[1] Birds of Conservation Concern in Ireland (BOCCI) 2020-2026 (Gilbert, Stanbury & Lewis, 2021). The colours represent the species designation on the various BOCCI lists.

Lapwing (*Vanellus vanellus*) [A142]	Vulnerable	Red	To maintain the favourable conservation condition of Lapwing in Cork Harbour SPA.
Dunlin (*Calidris alpina*) [A149]	Least Concern	Red	To maintain the favourable conservation condition of Dunlin in Cork Harbour SPA.
Black-tailed Godwit (*Limosa limosa*) [A156]	Vulnerable	Red	To maintain the favourable conservation condition of Black-tailed Godwit in Cork Harbour SPA.
Bar-tailed Godwit (*Limosa lapponica*) [A157]	Least Concern	Red	To maintain the favourable conservation condition of Bar-tailed Godwit in Cork Harbour SPA.
Curlew (*Numenius arquata*) [A160]	Vulnerable	Red	To maintain the favourable conservation condition of Curlew in Cork Harbour SPA.
Redshank (*Tringa totanus*) [A162]	Least Concern	Red	To maintain the favourable conservation condition of Redshank in Cork Harbour SPA.
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	Least Concern	Amber	To maintain the favourable conservation condition of Black-headed Gull in Cork Harbour SPA.
Common Gull (*Larus canus*) [A182]	Least Concern	Amber	To maintain the favourable conservation condition of Common Gull in Cork Harbour SPA.
Lesser Black-backed Gull (*Larus fuscus*) [A183]	Least Concern	Amber	To maintain the favourable conservation condition of Lesser Black-backed Gull in Cork Harbour SPA.
Common Tern (*Sterna hirundo*) [A193]	Least Concern	Amber	To maintain the favourable conservation condition of Common Tern in Cork Harbour SPA.

4.4 Impact Prediction

This section follows the S-P-R method as outlined in section 3.5 to identify if and how any of the SCIs of the relevant European site are linked to the Proposed Development. Once the connections have been identified the potential impacts of the Proposed Development on the **Cork Harbour SPA (004030)** in light of its SCIs are assessed.

For the purposes of objectivity and clarity, mitigation measures **are not considered in the impact prediction.** This includes all measures that will act limit or eliminate the potential for significant adverse impacts on the relevant European site.

4.4.1 Potential impacts of the Proposed Development on key Species and Habitats

The following elements of the Proposed Development were identified and assessed for their potential to cause likely significant effects on European sites.

Construction Phase (*Estimated duration: **18-24 months***)

- Uncontrolled releases of dust, sediments and/or other pollutants to air due to earthworks;
- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies or surface water network;
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater;
- Waste generation during the Construction Phase comprising soils and construction wastes;
- Increased noise, dust and/or vibrations as a result of construction activity;
- Increased dust and air emissions from construction traffic;
- Increased lighting in the vicinity as a result of construction activity; and
- Increased human presence and activity as a result of construction activity.

Operational Phase *(Estimated duration: Indefinite)*

- Surface water drainage from the Site of the Proposed Development;
- Foul water from the Proposed Development;
- Increased lighting at the Site and in the vicinity emitted from the Proposed Development; and
- Increased human presence and activity at the Site and in the vicinity as a result of the Proposed Development.
- Increased impermeable surfaces due to the access roads and houses that will result in a reduction of recharge to the underlying aquifer.
- Increased risk of bird collisions with Proposed Development.

The SCIs for the relevant European sites are described in Table 5 below. Descriptions are sourced from the relevant Conservation Objectives and supporting documents (NPWS 2017b, NPWS 2019a), Standard Data Forms (EEA, 2023) as well as the surveys carried out at the Site.

Table 5 below outlines the identified pathways between the Proposed Development and the relevant SCIs, and assesses the potential significant effects of the Proposed

Development on these. The assessment outlined below does not consider mitigation measures that will be implemented as part of the Proposed Development, but the nature of mitigation that will be required to eliminate the potential for significant adverse impacts is identified in the table, if any.

TABLE 5. ASSESSMENT OF THE POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT ON THE QIS AND SCIS OF THE RELEVANT EUROPEAN SITES. THOSE QIS/SCIS FOR WHICH NOTABLE IMPACT PATHWAYS WERE IDENTIFIED HAVE BEEN HIGHLIGHTED IN GREEN.

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
Cork Harbour SPA (004030)			
Little Grebe (*Tachybaptus ruficollis*) [A004] *Conservation objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
Gibbons et al (1993) estimated the all-Ireland breeding population at 3000 - 6000 pairs which equates proportionally to 2,259 – 4,518 breeding pairs for the Republic. Relying on the range increase data sourced from the recent Bird Atlas (Balmer et al 2013) and assuming that the breeding density has remained unchanged since 1991 then a contemporary population of 3,438 – 6,875 breeding pairs is arrived at. This estimate is to be treated with caution.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Great Crested Grebe (*Podiceps cristatus*) [A005] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
In 2004 the population was reported as 1,000 – 2,499 pairs (BirdLife International 2004). This marked an increase from the last national survey of Great Crested Grebes in Ireland (Preston 1976) which estimated a population of 758 pairs. Perry (2000) however considered this to be an underestimate of the true population (Perry 2000). Although the short term range has increased (section 5) it is	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
considered that the 2004 BirdLife International population estimate remains appropriate for this reporting period.	Lee (Cork) Estuary.		No mitigation required
Cormorant (*Phalacrocorax carbo*) [A017] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The population estimate of 8720 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Grey Heron (*Ardea cinerea*) [A028] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
Gibbons et al (1993) estimated the all-Ireland breeding population at 3,650 breeding pairs. Excluding the proportion of the population in Northern Ireland produces an estimate of 3,069 breeding pairs for the Republic for that period. Factoring in the small change in recorded range between Gibbons et al (1993) and Balmer et al (2013) and assuming that the breeding density has remained unchanged then a contemporary population estimate of 3,087 breeding	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
pairs is produced. This estimate is to be treated with caution due to the assumptions made and the uncertainty over the basis for the original density estimates.			No mitigation required
Whooper Swan (*Cygnus cygnus*) [A038] *Conservation Objective:* N/A.			
In January, 2010 as part of the International Swan Census the Whooper Swan population that overwinters in Ireland was estimated (see Boland et al 2010). Subsequent to the publication of Boland et al (2010) additional data for that time period was collated which increased the 2010 population estimate to 10520 individuals (O. Crowe, BirdWatch Ireland).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Shelduck (*Tadorna tadorna*) [A048] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
Gibbons et al (1991) estimated the all-Ireland breeding population at 1,100 pairs. Using the proportion of the occupied squares in the Republic compared to those exclusively occurring in Northern Ireland a scaled population estimate of 872 breeding pairs in 1991 for the Republic is calculated. Relying on the range increase data sourced from the recent Bird Atlas (Balmer et al 2013) and assuming that the breeding density has remained unchanged since 1991 then a	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
contemporary population of 958 breeding pairs is estimated. As all records (i.e. confirmed, probable and possible) were used in this analysis the presence of non-breeding immature birds in suitable breeding habitat may obscure, to some degree, the abundance of the true breeding population.			No mitigation required
Wigeon (*Anas penelope*) [A050] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The population estimate of 56350 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Gadwall (*Anas strepera*) [A051] *Conservation Objective:* N/A.			
The population estimate of 560 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA**	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase**	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
	(004030) via the Lee (Cork) Estuary.	There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Operational Phase:** No mitigation required
Teal (*Anas crecca*) [A052] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The population estimate of 29050 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Mallard (*Anas platyrhynchos*) [A053] *Conservation Objective:* N/A.			
The population estimate of 20050 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
	Lee (Cork) Estuary.		No mitigation required
Pintail (Anas acuta) [A054] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The estimated population of 1280 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Shoveler (*Anas clypeata*) [A056] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The population estimate of 2770 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
			No mitigation required
Common Pochard (*Aythya ferina*) [A059] *Conservation Objective:* N/A			
The population estimate of 8000 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Tufted Duck (*Aythya fuligula*) [A061] *Conservation Objective:* N/A			
The population estimate of 20980 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA**	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase**	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
	(004030) via the Lee (Cork) Estuary.	There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Operational Phase:** No mitigation required
Common Goldeneye (*Bucephala clangula*) [A067] *Conservation Objective:* N/A			
The estimated population of 1940 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Red-breasted Merganser (*Mergus serrator*) [A069] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The estimated population of 1550 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
			No mitigation required
Eurasian Coot (*Fulica atra*) [A125] *Conservation Objective:* N/A.			
The population estimate of 18270 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Oystercatcher (Haematopus ostralegus) [A130] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The estimated population of 45480 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:**

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
			No mitigation required
Common Ringed Plover (*Charadrius hiaticula*) [A137] *Conservation Objective:* N/A.			
The population estimate of 9060 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Golden Plover (Pluvialis apricaria) [A140] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The estimated population of 99870 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Grey Plover (*Pluvialis squatarola*) [A141] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The estimated population of 2850 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Lapwing (Vanellus vanellus) [A142] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The population estimate of 88580 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Red Knot (*Calidris canutus*) [A143] *Conservation Objective:* N/A.			
The estimated population of 22120 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Dunlin (Calidris alpina) [A149] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The estimated population of 44380 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Ruff (*Philomachus pugnax*) [A151] *Conservation Objective:* N/A.			
The population estimate of 17 individuals was derived by averaging peak annual winter counts for this species over a five year period. Partial or incomplete counts were excluded from the calculation of the mean estimate. This species is a relatively scarce passage migrant and winter visitor to Ireland (recorded at 31 sites during the 2004/05-2008/09 winter period) and is likely to be underrecorded. For further information refer to Crowe and Boland (2012).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Black-tailed Godwit (*Limosa limosa*) [A156] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The estimated population of 18080 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Bar-tailed Godwit (*Limosa lapponica*) [A157] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The estimated population of 11890 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Curlew (*Numenius arquata*) [A160] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The population estimate of 27830 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS). This estimate is to be treated as a conservative one on account of the relatively poorer I-WeBS coverage of some of the areas that this species is distributed over.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Spotted Redshank (*Tringa erythropus*) [A161] *Conservation Objective:* N/A.			
The population estimate of 7 individuals was derived by averaging peak annual winter counts for this species over a five year period. Partial or incomplete counts were excluded from the calculation of the mean estimate. This species is a relatively scarce winter visitor to Ireland (recorded at 32 sites during the 2004/05-2008/09 winter period) and is likely to be underrecorded. For further information refer to Crowe and Boland (2012).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Redshank (*Tringa totanus*) [A162] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
The estimated population of 19400 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Common Greenshank (Tringa nebularia) [A164] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
The population estimate of 890 individuals is based on a mean of peak counts with imputation for the overwintering period of 2006/07 to 2010/11 that was collected as part of the Irish Wetland Bird Survey (I-WeBS).	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Green Sandpiper (*Tringa ochropus*) [A165] *Conservation Objective:* N/A.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
N/A.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Ruddy Turnstone (*Arenaria interpres*) [A169] *Conservation Objective:* N/A.			
N/A.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Black-headed Gull (*Chroicocephalus ridibundus*) [A179] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
This species along with other gull species that overwinter in Ireland is currently only poorly covered by the Irish Wetland Bird Survey (I-WeBS) programme. This reported population size of 50181 individuals, which is an underestimate of the true population size, is based on the mean of peaks for the 2006/07-2010/11 period.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Common Gull (*Larus canus*) [A182] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
This species along with other gull species that overwinter in Ireland is currently only poorly covered by the Irish Wetland Bird Survey (I-WeBS) programme. This reported population size of 18415 individuals, which is an underestimate of the true population size, is based on the mean of peaks for the 2006/07-2010/11 period.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Lesser Black-backed Gull (*Larus fuscus*) [A183] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
This species along with other gull species that overwinter in Ireland is currently only poorly covered by the Irish Wetland Bird Survey (I-WeBS) programme. This reported population size of 10363 individuals, which is an underestimate of the true population size, is based on the mean of peaks for the 2006/07-2010/11 period.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Common Tern (*Sterna hirundo*) [A193] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			
N/A.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required
Wetland and Waterbirds [A999] *Conservation Objective:* To maintain the favourable conservation condition of this species in Cork Harbour SPA.			

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
Wetland and waterbirds habitat encompasses any habitat which SCI species may use for feeding, nesting or roosting.	There is a potential hydrological pathway between the Proposed Development and the **Cork Harbour SPA (004030)** via the Lee (Cork) Estuary.	**Construction Phase** In the absence of mitigation measures, it cannot be excluded that surface run-off/discharges arising from the Proposed Development could have an indirect significant effect on forage availability of this SCI species. **Operational Phase** There are no significant effects foreseen on this SCI species as a result of the Proposed Development during Operational Phase.	**Construction Phase** Standard best practice measures Control and Management of Contaminated Soil Control and Management of Surface Water Runoff **Operational Phase:** No mitigation required

4.4.2 Potential for In-combination Effects

4.4.2.1 Existing Planning Permissions

A search of planning applications located within a 300m radius of the Site of the Proposed Development was conducted using online planning resources such as the National Planning Application Database (NPAD) (MyPlan.ie) and Cork City Council Planning Applications online map (CCC 2024). Any planning applications listed as granted or decision pending from within the last five years were assessed for their potential to act in-combination with the Proposed Development and cause likely significant effects on the relevant European sites. Long-term developments granted outside of this time period were also considered where applicable.

The larger developments within the vicinity of the Site are listed in Table 6 below:

TABLE 6. GRANTED AND PENDING DEVELOPMENT APPLICATIONS WITHIN 300 M OF THE PROPOSED DEVELOPMENT. LOCATION AND DISTANCE GIVEN IS RELATIVE TO THE PROPOSED DEVELOPMENT.

Planning Reference	Planning Authority	Status	Location
TA28.313277	Cork City Council	Live Case	Former Tedcastles Yard, Centre Park Road and the Marina, Cork
Development Description Demolition of existing structures, construction of 823 no. apartments, creche and associated site works. **Potential for In-combination effects** The Natura Impact Statement provided for this development states: 'It has been objectively concluded following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted effects from the proposed development and with the implementation of the mitigation measures proposed, that the construction and operation of the proposed development will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in-combination with other plans or projects. There is no reasonable scientific doubt in relation to this conclusion. The competent authority will make the final decision in this regard.			
TA28.309059	Cork City Council	Granted	SHD, The Former Ford Distribution Site, Fronting onto Centre Park Road, Marquee Road and Monaghan's Road Cork
Development Description Demolition of existing structures, 10 year permission for the construction of 1002 no. apartments, childcare facilities and associated site works. **Potential for In-combination effects** The Natura Impact Statement provided for this development states: 'Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in-combination with other plans or projects would not adversely affect the integrity of the Cork Harbour SPA and Great Island Channel SAC, or any other European site, in view of the site's Conservation Objectives'.			

4.4.2.2 Relevant Policies and Plans

The local policies and plans detailed in section 2.2 above were reviewed and considered for possible in-combination effects with the Proposed Development. Each of these plans has undergone AA, and where potential for likely significant effects has been identified (e.g., in the case of the Cork City Development Plan), an NIS has been

prepared which identifies appropriate mitigation. As such, it is considered that the plans and policies listed will not result in in-combination effects with the Proposed Development. The Cork City Development Plan 2022-2028 has directly addressed the protection of European sites and biodiversity through specific objectives. The above listed plans are not being relied upon to rule out potential significant effects on European sites.

4.5 Avoidance and Mitigation Measures

The following sections outline the avoidance and mitigation measures identified to eliminate the potential for significant adverse impacts on the relevant European sites. Once the recommended measures outlined in the following sections are implemented in full, no adverse impacts on the relevant European sites or their QIs/SCIs are anticipated as a result of the Proposed Development. These mitigation measures will be included in a Construction and Environmental Management Plan (CEMP) that will be prepared prior to commencing works by the appointed construction contractor.

4.5.1 Summary of Potential Effects

Potential significant effects arising from the **Construction Phase** include:

- Water quality impacts on designated sites arising from surface water run-off during the Construction Phase, in particular during flooding events,

The following mitigation and enhancement measures will ensure no significant effects arise on designated sites as a result of the Proposed Development, either alone or in-combination with other projects.

4.5.2 Construction Phase

4.5.2.1 Mitigation 1: Control and Management of Contaminated Soil

The following mitigation has been extracted from Chapter 10 (Water and Hydrology) of the Ford LRD EIAR:

'*Contaminated soil will be encountered during groundworks at the site. Remedial works undertaken to date have removed a large portion of the contaminated soil at the site. However, the soil validation results demonstrate that petroleum hydrocarbon and solvent impacted areas remain at validation sample locations V03, V10, V11, V12 and 9AB-10 (WSP, 2024c). As mentioned, in Section 9.9.1, the refined HHRA will be used to inform the remediation plan to ensure that residual sources of contamination in soil are removed offsite. The removal of the residual soil source will be validated in accordance with relevant guidelines including EPA 'Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites' (EPA, 2013) and guidance and standards current at the time of construction works. Therefore, there will be no residual sources of contamination that will remain onsite.*

This work should be undertaken prior to the bulk excavation works for the construction of building foundations, utility infrastructure and other works to reduce the potential risks associated with exposure of soils to rainfall or surface runoff and leaching to groundwater.

Where possible, stockpiling of soils and subsoils onsite will be avoided. However, in the event that stockpiling is required, stockpiled materials, pending reuse onsite, will be located away from the location of any sensitive receptors (watercourses and drains). In accordance with Inland Fisheries Ireland guidelines, stockpiles will not be allowed within 50m of the open water where sufficient working areas are available within the Site boundary.

Surplus material, not suitable for reuse onsite, will be segregated, and stockpiled appropriately for removal offsite. For any excavated material identified for removal offsite, while assessment and approval of acceptance at a destination re-use, recovery Site or waste facility is pending, excavated soil for recovery/disposal shall be stockpiled as follows:

- *A suitable temporary storage area will be identified and designated.*
- *All stockpiles will be assigned a stockpile number.*
- *Stockpiled soil and stone materials will be protected from exposure to wind by storing the material in sheltered regions of the Proposed Development Site.*
- *Soil waste categories will be individually segregated; and all segregation, storage & stockpiling locations will be clearly delineated on the Site drawing.*
- *Any waste to be temporarily stockpiled will be stockpiled only on hard standing on heavy gauge polythene sheeting and soil stockpiles will be sealed to prevent run-off of rainwater and leaching of potential contaminants from the stockpiled material generation and/or the generation of dust.*
- *There will be no storage of materials within 10m of any boundary, drains and watercourses*'.

4.5.2.1 Mitigation 2: Control and Management of Surface Water Runoff

The following mitigation has been extracted from Chapter 10 (Water and Hydrology) of the Ford LRD EIAR:

'*There will be no direct discharges from construction activities to groundwater or surface water during the construction phase of the Proposed Development.*

Surface water will be managed in accordance with the requirements of the CEMP (DBFL, 2024) and the measures outlined below.

Excavation works for building foundations, utility infrastructure and other works will be undertaken in a phased manner in order to minimise the exposure of soil to rainfall. Where feasible groundworks will be undertaken during dryer weather and avoided where heavy rainfall is forecast. Suitable temporary cover (e.g., tarpaulins) of potentially contaminated areas will be required to prevent ingress of rainfall.

A regular review of weather forecasts of heavy rainfall will be conducted, in particular during groundworks, and a contingency plan will be prepared for before and after such events to minimise any potential nuisances. As the risk of the break-out of silt laden run-off is higher during these weather conditions, no work will be carried out during such periods where possible.

Surface water from the surrounding areas will be prevented from draining into the open excavations onsite during construction works through the use of temporary bunds / sandbags around excavation areas to provide diversion of surface water away from excavations. A 10m buffer zone will be established around any open drainage courses and road gullies during construction works and other methods such as bunding implemented where appropriate to ensure that all watercourses or drainage gullies are appropriately isolated.

There will be no storage of materials or refuelling permitted within 10m of a water course (i.e. the Lee (Cork) Estuary Lower) any open drainage courses or road gully. Further details are provided in Section 10.10.2.7.

There will be no authorised discharge of surface water runoff during the construction phase.

The use of wheel-wash and water treatment facilities will be used as required on site. The correct use and management of these will be undertaken by the appointed contractor to ensure that there is no harm to the receiving water environment.

Public roads outside the site will be regularly inspected for cleanliness, as a minimum on a daily basis, and cleaned as necessary. If required, a road sweeper will be deployed to ensure that public roads are kept free of debris to prevent any runoff entering road gullies and the receiving water environment.'

4.6 Monitoring

4.6.1 Construction Phase

During the Construction Phase, the following monitoring will be carried out by the construction contractor to ensure the implemented mitigation measures are maintained effectively:

- Control and Management of Contaminated Soil measures (Mitigation 1) and Control and Management of Surface Water Runoff measures (Mitigation 2) will be checked weekly to ensure they remain effective, and more often during moderate to heavy rainfall events as appropriate. Records are to be shared with Cork City Council on request. Failures in compliance will be rectified immediately, should issues with contaminated soil or surface water emerge.

5 CONCLUSION

This Natura Impact Statement details the findings of the Stage 2 Appropriate Assessment conducted to further examine the potential direct and indirect impacts of the Proposed Development planning application at the Former Ford Site, Centre Park Road, Cork, on the following European Sites:

- Cork Harbour SPA (004030).

The above sites were identified by a screening exercise that assessed likely significant effects of a range of impacts that have the potential to arise from the Proposed Development. The Appropriate Assessment investigated the potential direct and indirect effects of the proposed works, both during construction/infill and operation, on the integrity and qualifying interests of the above European Site, alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives.

Where potentially significant effects were identified, a range of mitigation and avoidance measures have been suggested to avoid them. This NIS has concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity of the above European site(s), individually or in combination with other plans and projects. Where applicable, a suite of monitoring surveys have been proposed to confirm the efficacy of said measures in relation to ensuring no adverse impacts on the habitats of the relevant European sites have occurred.

As a result of the complete, precise and definitive findings in of this NIS, it has been concluded, beyond reasonable scientific doubt, that the Proposed Development will have no significant adverse effects on the QIs, SCIs and on the integrity and extent of Cork Harbour SPA (004030). Accordingly, the Proposed Development will not adversely affect the integrity of any relevant European site.

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