

# The Development of 88 Dwellings, Kilcarbery Co. Dublin

Screening for Appropriate Assessment

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South Dublin  
County Council

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## Contract

This report describes work commissioned by Therese Pender of South Dublin County Council, by an email dated 28th July 2023. Michael Coyle of JBA Consulting carried out this work.

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## Purpose

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## Abbreviations

AA	Appropriate Assessment
CJEU	Court of Justice of the European Union
CIEEM	Chartered Institute of Ecology and Environmental Management
DoEHLG	Department of Environment, Heritage and Local Government
EC	European Communities
EPA	Environmental Protection Agency
EU	European Union
GSI	Geological Survey Ireland
IAQM	Institute of Air Quality Management
INNS	Invasive Non-native Species
IROPI	Imperative Reasons of Over-riding Public Interest
NBDC	National Biodiversity Data Centre
NOx	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
OSM	Open Street Map
OPR	Office of the Planning Regulator
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SDCC	South Dublin County Council
SPA	Special Protection Area
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant
ZoI	Zone of Influence

# 1 Introduction

## 1.1 Background

JBA Consulting Engineers and Scientists Ltd. (hereafter JBA) has been commissioned by South Dublin County Council (SDCC) to prepare an Appropriate Assessment Screening Report for a proposed development of 88 dwellings and associated landscaping works in Kilcarbery Co. Dublin.

Screening for appropriate assessment is intended to be an initial examination which must be carried out by the Planning Authority or An Bord Pleanála as the competent authority. However, this screening is completed on behalf of the project proposer to show that likely significant effects have been considered in the project development and design, and where necessary progress with further assessment.

This Appropriate Assessment screening report provides the results of the screening appraisal conducted for the proposed development in order to complete the first stage of the appropriate assessment process in accordance with Article 42 of the 2011 Bird and Habitats Regulations, which implements the Habitats Directive (European Commission 1992) into Irish Law.

## 1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

*“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.”*

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

*“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

*Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”*

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of *inter alia* the European Communities (Birds and Natural Habitats) Regulations 2011-2015 (S.I. No. 477 / 2011) as amended.

### 1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2009, rev 2010). Office of the Planning Regulator (OPR) produced a Practice Note in 2021, PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

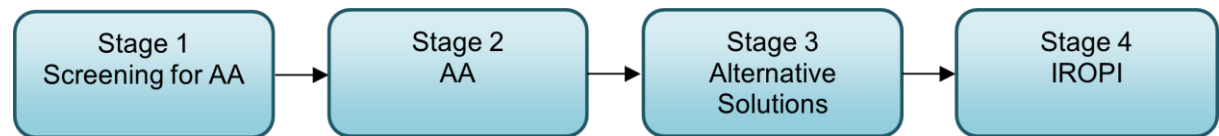


Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DEHLG, 2009)

#### 1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

- whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation
- if it is likely to have a significant adverse effect on the European designated site, either individually or in combination with other plans or projects.

For those sites where, potential adverse effects are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse effect on the integrity of a European designated site, in view of the site's conservation objectives (i.e. the process proceeds to Stage 2).

#### 1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect effects of them on the integrity and interest features of the European designated site(s), alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e. the process proceeds to Stage 3).

#### 1.3.3 Stage 3 - Alternative Solutions

Where adverse effects on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse effects need to be considered. If none can be found, the process proceeds to Stage 4.

#### 1.3.4 Stage 4 - IROPI

Where adverse effects of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant effects are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse effects on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.



### 1.3.5 Recent judgements of the Court of Justice of the European Union (CJEU) and how they are used in this assessment

The CJEU issued a ruling on the consideration of avoidance and reduction measures as a result of the case known as *People over Wind, Peter Sweetman v Coillte Teoranta* (Case C-323/17). This judgement stated that measures intended to reduce or avoid effects on a Natura 2000 site should only be considered within the framework of an Appropriate Assessment, and it is not permissible to take into account such measures at the screening stage. In practice, this means that any activities that are not integral to the project (i.e., the project could conceivably take place without them) and have the effect of avoiding or reducing an effect on a Natura 2000 site, cannot be considered at the screening stage.

The CJEU ruling in the case of *Grace & Sweetman* [2018] (C-164/17) clarified the difference between avoidance and reduction (mitigation) measures and compensation. Measures intended to compensate for the negative effects of a project cannot be taken into account in the assessment of the implications of a project, and instead are considered under Article 6(4). This means that any project where an effect on the integrity of a Natura 2000 site remains and can only be offset by compensation, would need to proceed under Article 6(4), demonstrating “imperative reasons of overriding public interest”.

The judgements referred to as the Dutch Nitrogen cases [2018] (C-293/17 and C-294/17) have important implications for projects that could potentially effect on sites that are exceeding critical thresholds for input of damaging ammonia (but could also reasonably apply where other nutrients are effecting Natura 2000 sites). The judgements state that the use of thresholds to exclude project effects is acceptable in principle, and that strategic plans can be used as mitigation but only with consideration of the certainty (or otherwise) of the outcomes of those strategic plans. It clarifies that where the status of a habitat type is already unfavourable the possibility of authorising activities which increase the problem is necessarily limited.

The CJEU ruling in the case of *Holohan v An Bord Pleanala* (C-462/17) also clarified the importance in Appropriate Assessment of taking into account habitat types and species outside the boundary of the Natura 2000 site where implications of the effects on those habitat and species may effect the conservation objectives of the Natura 2000 site. In this assessment functionally linked and supporting habitat for species outside of Natura 2000 sites are assessed where they could potentially effect the conservation objectives of any screened in Natura 2000 sites.

The CJEU ruling in response to questions referred by the Irish High Court in the *Eco Advocacy* case (C-721/21) indicated that an applicant for permission in its AA screening report/and a decision maker in undertaking its AA screening can take into account “standard features”, i.e. all the constituent elements of that project inherent in it/elements that are incorporated into a projects design not with the aim of reducing its negative effects (even where these have the effect of reducing harmful effects on a European site).

## 1.4 Methodology

The Screening for Appropriate Assessment has been prepared having regard to the Birds and Habitats Directives, the European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended and relevant jurisprudence of the EU and Irish courts. The following documents have also been used to provide guidance for the assessment:

- DEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DEHLG, 2009).
- Office of the Planning Regulator (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021).
- European Communities (EC) (2019) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission, 2019).
- EC (2021) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public

interest, compensatory measures, overall coherence, opinion of the commission. European Commission Management (European Commission, 2007/12).

- EC (2021) 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)

#### 1.4.1 Desktop study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) web-based databases, in order to identify key habitats and species (including legally protected and species of conservation concern) that may be present within ecologically relevant distances from the project as explained below. The data sources below were consulted for the desktop study:

- Aerial photography available from [www.osi.ie](http://www.osi.ie) and Esri World Imagery.
- NPWS website ([www.npws.ie](http://www.npws.ie)) where Natura 2000 site synopses, data forms and conservation objectives were obtained along with Annex I habitat distribution data and status reports.
- River Basin Management Plans ([www.wfdireland.ie](http://www.wfdireland.ie))
- NBDC Biodiversity Maps ([maps.biodiversityireland.ie](http://maps.biodiversityireland.ie))
- Catchments ([www.catchments.ie](http://www.catchments.ie))
- Environmental Protection Agency Maps (<https://gis.epa.ie/EPAMaps>)
- Geological Survey Ireland (GSI) website ([www.gsi.ie](http://www.gsi.ie))
- GSI - Groundwater data viewer (<https://dcenr.maps.arcgis.com>)
- Planning Applications ([myplan.ie](http://myplan.ie))

#### 1.4.2 Ecological Site Survey

To inform this AA Screening an ecological site survey was performed by JBA Ecologist, Michael Coyle on the 7th of September 2023.

The ecological walkover survey recorded habitats and protected species, following the methods outlined in the documents below:

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al. 2011).
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2009).

Aerial photographs and site maps assisted the survey. Habitats have been classified and described following Fossitt (2000). Nomenclature for higher plants follows that given in The New Flora of the British Isles 4th Edition (Clive Stace 2019). Identification of Irish plants generally follows Webb's An Irish Flora (Parnell and Curtis, 2012).

### 1.5 Screening Method

This screening assessment uses the source-pathway-receptor model as outlined in guidance (OPR, 2021). Using the source-pathway-receptor model allows for the potential significant effects to be eliminated if no viable source, pathway or receptor is present.

#### 1.5.1 Zone of Influence (Zoi)

An examination of the construction methods or project description allows sources of impact to be determined. This allows a Zone of Influence (ZOI) for the project to be generated based on the size, scale and nature of the works involved. The pathways for impact are also analysed to see if a viable pathway for impact is present. Using information gathered from desk sources (mapped qualifying interests from the Conservation Objectives for the site) and from field surveys, receptors within the zone of influence are identified. If any of the three parts to the model are not present (source-pathway-receptor) the potential for a significant effect from the project on the Natura 2000 network can be discounted.

This means the final 'Zone of Influence' can be a complex shape not easily defined by a simple distance figure, but in this way the assessment includes all relevant sites whilst avoiding unnecessary inclusion of other sites.

### 1.5.2 Likely Significant Effect Test

The test for AA screening is whether the project could have a 'Likely Significant Effect' (LSE) on any Natura 2000 site. A likely significant effect is defined as any effect that could undermine the conservation objectives of a Natura 2000 site, either alone or in combination with other plans or projects. There must be a causal connection between the project and the qualifying interest of the site which could result in possible significant effects on the site. The LSE test is a lower threshold for the screening assessment than 'adverse effect on site integrity' considered at Appropriate Assessment stage (Stage 2) as screening is intended to be a preliminary examination for potential effects.

The Zone of Influence was used to identify Natura 2000 sites that could be impacted by the project. For each of these sites, the Qualifying Interest features and their associated conservation objectives were identified, and the possibility of LSE was determined by a combination of location, ecological and hydrological connectivity, sensitivity of receptor and magnitude of the source of impact.

### 1.5.3 In-combination Screening

The possibility of in-combination effects are considered only at a high level. Where there is no effect at all via a pathway, there is no possibility of in-combination effects. Where an LSE is identified, the in-combination assessment is carried forwards to a Stage 2 Appropriate Assessment.

## 1.6 Limitations and constraints

The screening assessment necessarily relies on some assumptions, and it was inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- Information on the works and conditions on site are based on current knowledge at the time of writing. Changes to the site since this report was drafted cannot be accounted for. However, significant changes to the site are unlikely in the time between the site visit on the 7th of September 2023 and likely start date of the proposed project.
- This assessment is based on the methodology for proposed works as described in this report. Where changes to methodology occur, an ecologist will need to be consulted to determine if the changes are likely to alter the ecological effects and would therefore need reassessment.

## 2 Project Description

### 2.1 The 'Project'

The Proposed Project is not directly connected with, or necessary to the management of any Natura 2000 site and may have potential adverse effects upon the Natura 2000 sites identified in Section 4. Therefore, the proposed project is subject to the requirements of the AA process.

### 2.2 Site Location

The project is located in Kilcarbery, south of the townland of Deansrath, in the south-west suburban area of Dublin. The location of the site is shown in Figure 2-1. The north of the site runs along the along the Upper Nangor Road, while the south of the site is adjoining an area under construction which is to accommodate the development of 1000 homes. There are no watercourses available on site, and the nearest watercourse is the River Camac (Camac\_030) which is located approximately 0.6km south-east of the development area.



Figure 2-1: Site location and boundary of work (© OpenStreetMap contributors, 2023)

### 2.3 Proposed Project

The proposal has been prepared on behalf of South Dublin County Council as a Part 8 application for a residential development, consisting of 88 residential units on undeveloped lands measuring c. 2.03 hectares adjoining the Upper Nangor Rd, Kilcarbery Grange, Dublin 22.

The proposed development consists of a mix of 88 units consisting of a variety of house and duplex types. The units proposed include 44 no. 3bed 2 storey houses, 8 no. 4 bed 2 storeys houses, 36 no. duplex units (varying from 1 to 3 beds) within 3 storey duplex blocks. The development includes 100 no. surface car park spaces and 110 no. bicycle parking spaces, above ground sustainable urban drainage measures, an ESB kiosk, Irish Water below-ground foul pumping station, proposed new roads, footpath and cycle-paths (including works to provide a cycle-path along a portion of the Upper Nangor

Rd), public open space areas, landscape works, bin/bicycle stores and all associated ancillary site development works. The Proposed Project is scheduled to last for approximately 18 Months.

These details can be seen in the Site Layout Plan, which can be viewed in Appendix A.

### 2.3.1 Surface Water Drainage

During the construction phase of the project, there is a designed surface water network which directs water towards a site low point outfall within the Kilcarbery site network, at predevelopment run-off rates for the catchment area.

During operation of the project, the surface water design elements are implemented to prevent the project from altering the current pre-development run-off rates of the site, and will be achieved through the following:

**Attenuate Storm-water runoff:** Storm water provisions in place include rain gardens, green spaces, tree pits, infiltration trenches and permeable paving as well as strategically positioned above ground detention basin and below ground Bioretention areas. Run-off directed to the rear of housing is directed to above ground rain gardens (at source). Up to significant Rainfall Events 3% of the annual exceeded probability, no run-off will leave the individual development plots during these events and all run-off will either be taken up by planting or allowed to soak naturally to the underlying geology.

**Reduce Storm-water runoff:** The site's rain gardens, green spaces, tree pits, infiltration trenches, control manholes and hydro brakes will be in place in order to reduce time of concentration and reduce runoff leaving the site in terms of overall volume as well as reduced peak run off to greenfield rates.

**Reduce pollution impact:** Infiltration is used to manage the majority of treatment volumes within the site. The run-off from roads, where there is no green space immediately alongside, is discharged via dropped kerbs into tree pits, with a gully downstream that also feeds into the tree pit. This gully has a high-level overflow which is directed into the drainage network. Interceptors are provided as a second line of defence on exit from the site to watercourses or downstream piped infrastructure.

**Replication of the natural characteristics of rainfall runoff for the site:** The project is designed to allow for the infiltration of water to the underlying geology for the majority of rainfall events as well as take up by planting both within curtilage and in open green spaces in varying forms. Green spaces are all passively drained to the underlying soil and where possible (subject to levels, safety, etc) are planted to allow for passive take up by plants or soakage directly to ground water. Water is also held at various locations as part of the biodiversity strategy.

**Recharge the groundwater profile:** Rainfall is allowed to infiltrate to the underlying geology without passing to the site wide conveyance network, which will maintain pre-development levels of recharge and percolation rates.

**These measures are in line with** SDCC Sustainable Drainage Explanatory Design & Evaluation Guide and the Greater Dublin Regional Code of Practice for Drainage Works (Dublin City Council, 2021). The first objective of the Code of Practice is Compliance with best environmental practices and relevant environmental legislation such as the Water Framework Directive.

### 2.3.2 Foul Water

The wastewater drainage for the site follows Irish Water's code of practice and standard details. Foul water is directed towards an onsite pumping station, which will then be pumped to a gravity network to the north of the site along old Nangor Road, before being treated in the Ringsend Wastewater Treatment Plant.

### 2.3.3 Zone of Influence (Zol)

The Zone of Influence (Zol) for the project is based on a judgement of the likely extent of the ecological impacts of the proposed works. This will vary for different ecological features, depending on their sensitivities to environmental change.

The project will primarily affect the site only, but a wider Zone of Influence (Zol) is utilised for impacts relating to noise disturbance (300m); air pollution (500m) (IAQM, 2023); groundwater and surface water pollution (5km), with an additional 15km buffer for hydrologically connected transitional and coastal

waters; and any supporting habitat for Qualifying Interest (QI) species within any of the above distance buffer.

### 3 Existing Environment

#### 3.1 Baseline conditions

The proposed site is largely set within an urban environment. The site at the time of survey consisted of mostly excavated land with a blended hedgerow-treeline boundary, along the north of the site. The site is located approximately 0.6km north-west of the River Camac (Camac\_030) waterbody.

#### 3.2 Habitats

The majority of the area within the site boundary is an ongoing construction site consisting of excavated dirt mounds and early constructed dwellings. Along the north boundary of the site, is the Old Nangor Road, with a blended hedgerow-treeline along the northern site boundary, and a mature treeline across the road from the site. To the north of the site is an orthopaedic footwear centre and Scoil Mochua. The site is bordered by housing estates to the east and apartment blocks to the west, with a golf course further west, and Corkagh Park to the south.

A site survey was conducted by JBA Ecologist Michael Coyle on the 7th of September 2023. Habitats recorded are listed in Table 3-1 and an overview of habitats is shown in Figure 3-1.

Table 3-1: Habitats recorded during site visit.

Habitat	Fossitt Code
Spoil and bare ground	ED2
Hedgerows / Treelines	WL1 / WL2

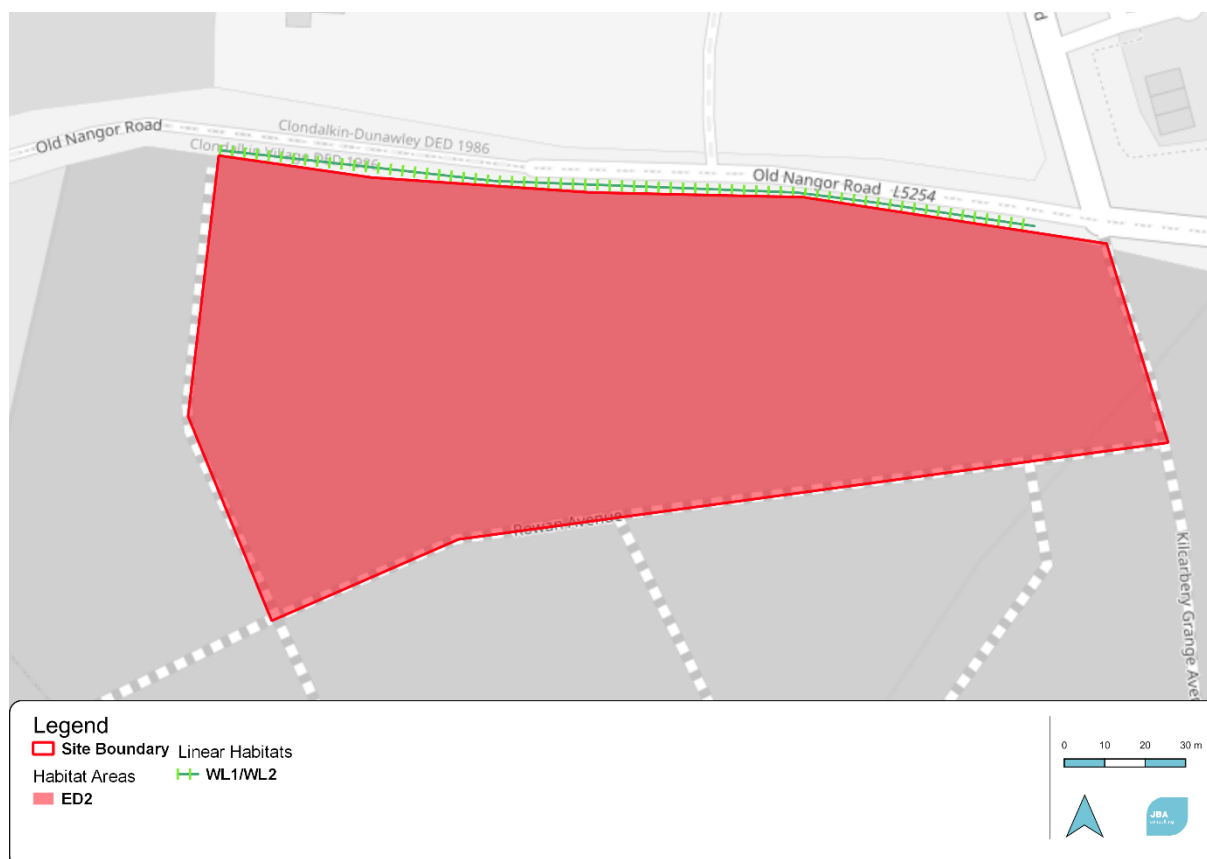


Figure 3-1: Habitat Map (© OpenStreetMap contributors, 2023)

### Spoil and bare ground (ED2)

The majority of the site was dedicated to ongoing construction (Figure 3-2, Figure 3-3), with areas near the northern boundary, directly to the south of the hedgerow/treeline mosaic, are excavated soil and rocky mounds (Figure 3-4). This area was not surveyed for a mixture of health and safety reasons, and for the lack of observable ecological features.



Figure 3-2: The construction area of the site, as seen from the western boundary.



Figure 3-3: The construction area of the site, as seen from the north-east corner of the boundary.





Figure 3-4: Soil mounds near the north boundary of the site.

#### Hedgerow / Treeline (WL1 / WL2)

A hedgerow/treeline mosaic is located along the northern site boundary. The structure of the hedgerow varies, with sections with larger and more mature treeline features (Figure 3-5) and other areas of low growing and shrubby hedge-like features (Figure 3-6). The sections with taller features have tree and shrub species including Curly Hazel *Corylus avellana*, Hawthorn *Crataegus monogyna*, Sycamore *Acer pseudoplatanus*, a dead Ash *Fraxinus excelsior*, Willow *Salix cinerea*, Red Elderberry *Sambucus racemosa* and Privet *Ligustrum vulgare*, with some of these trees covered in light layers of Ivy *Hedera helix*.

At the base, along the roadside, were the herbaceous species Hogweed *Heracleum sphondylium*, False Oat-grass *Arrhenatherum elatius*, Bramble *Rubus fruticosus*, Dandelion *Taraxacum* spp, Curled Dock *Rumex crispus*, Ivy, Nipplewort *Lapsana communis*, Bush Vetch *Vicia sepium*, Small-flower Cranes-bill *Geranium pusillum*, Nettle *Urtica dioica*, Herb Robert *Geranium robertianum*, Rosebay Willowherb *Chamaenerion angustifolium*, Large Bindweed *Calystegia sepium*, Cleaver *Galium aparine*, Field Sowthistle *Sonchus arvensis*, Mugwort *Artemisia vulgaris*, Cock's Foot *Dactylis glomerata*, Creeping Thistle *Cirsium arvense*, Meadow Buttercup *Ranunculus acris*, Ribwort Plantain *Plantago lanceolata*, Woody Nightshade *Solanum dulcamara*, Creeping Cinquefoil *Potentilla reptans* and Chicory *Cichorium intybus*. In areas of shaded understory there was a dense cover of Ivy, with the occasional presence of Lord and Ladies *Arum maculatum* and Hart's Tongue Fern *Asplenium scolopendrium*.



Figure 3-5: Mature treeline growth along the northern boundary.



Figure 3-6: Semi-mature and shrubby hedgerow growth along the boundary.

### 3.2.1 Protected Flora

There were no floral species listed under the Flora (Protection) Order 2022 recorded by the JBA Ecologists during the ecological walkover survey.

### 3.2.2 Protected Fauna

There were no direct or indirect evidence of mammal species listed under the Wildlife Act 1976 and its Amendments recorded by the JBA Ecologists during the ecological walkover survey.

Bird species recorded during the site survey include Blue Tit *Cyanistes caeruleus*, Goldfinch *Carduelis carduelis*, Jackdaw *Corvus monedula* and Magpie *Pica pica*, which are all listed as Green List bird of conservation concern, and Linnet *Linaria cannabina*, which is an Amber List bird of conservation concern (Gilbert et al., 2021), however, none of these bird species are QIs of the any associated Natura 2000 sites.

The site has no suitable ex-situ habitat for potential QI wintering birds such as Brent Goose *Branta bernicla hrota* that occasionally use terrestrial park land within the greater Dublin area.

### 3.2.3 Invasive Non-native Species

There were no direct or indirect evidence of floral or fauna species listed under the Third Schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011 recorded by the JBA Ecologists during the ecological walkover survey.

## 3.3 Waterbodies within the Vicinity of the Proposed Site

The entirety of the proposed project is located within the Water Framework Directive (WFD) Liffey and Dublin Bay catchment, and within the Liffey sub-catchment (EPA, 2023). There are no watercourses located within the area of the project, and the nearest watercourse is the River Camac (Camac\_030) which is approximately 0.6km to the south-east of the site. Other WFD waterbodies that are located within the Zol of the project site includes additional sections of the River Camac (Camac\_020, and Camac\_040), Coneyburrow Stream (Liffey\_150), Baldonnell Stream (Liffey\_170), River Liffey (Liffey\_180) and the Grand Canal (Grand Canal Main Line). All of these waterbodies, along with their WFD status (2016-2021) and current risk are listed in Table 3-2, and are shown in Figure 3-7.

Surface water run-off and discharges from the permitted development will enter the River Camac and downstream environments through both the proposed and existing surface water drainage network, which are in place to maintain pre-development run-off rates of surface waters. Foul water from the permitted development will be discharged into the Ringsend Wastewater Treatment Plant for treatment, via the existing foul water drainage network. Both water from the River Camac Stream and foul water drainage network discharge into Liffey Estuary transitional waterbodies before entering Dublin Bay.

Table 3-2: WFD status and risk of local watercourses.

WFD Watercourse	WFD Status	WFD Risk	Approximate Distance from Site
River Camac (Camac_020)	Moderate	At Risk	1.6km
River Camac (Camac_030)	Poor	At Risk	0.6km
River Camac (Camac_040)	Poor	At Risk	2.1km
Coneyburrow Stream (Liffey_150)	Good	Review	4.9km
Baldonnell Stream (Liffey_170)	Poor	At Risk	1.2km
River Liffey (Liffey_180)	Poor	At Risk	4.4km
Grand Canal (Grand Canal Main Line Liffey and Dublin Bay)	Good	Not at Risk	1.2km



Figure 3-7: Local river waterbodies (© OpenStreetMap contributors, 2023)

### 3.4 Groundwater

The whole site is encompassed by the ground waterbody Dublin (IE\_EA\_G\_008) (Figure 3-9). The WFD status for this groundwater body is currently "Good" water status, however its risk status is currently is due to be reviewed (EPA, 2023).

The underlying bedrock of the site is dominated by Dark limestone & shale ('calp) of the Lucan Formation, and the soil is derived of till derived chiefly from limestone. The permeability of the site's area is classified as Low with a low recharge capacity of 25%. The groundwater in the area of the site has an overall High vulnerability (Figure 3-9).

The aquifer within the underlying bedrock is considered to be Locally Important and is "Moderately Productive only in Local Zones", resulting in a limited and poor connection between fractures, fissures, and joints, which also contributes to the overall low recharge capacity of the area. This results in a rapid discharge, limited to only a few hundred metres.

In the context of this site, this means that the groundwater is slow to flow and limited to a poor network of fractures, fissures, and joints, none of which are present within or adjacent to the site, and so there is a low level of retention or transferral within the groundwater, and percolated waters are likely to be discharged to the local River Camac.

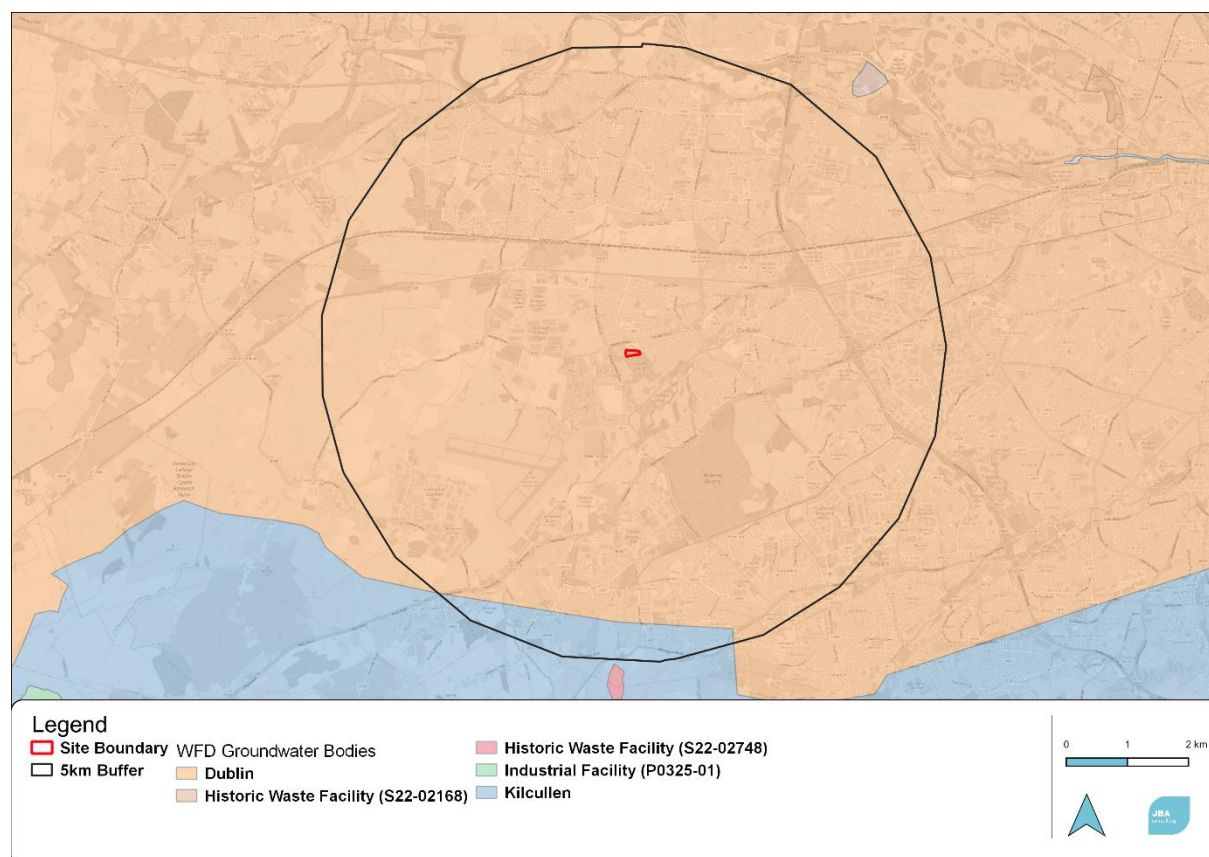


Figure 3-8: Groundwater bodies in the vicinity of site (OSM, 2023)

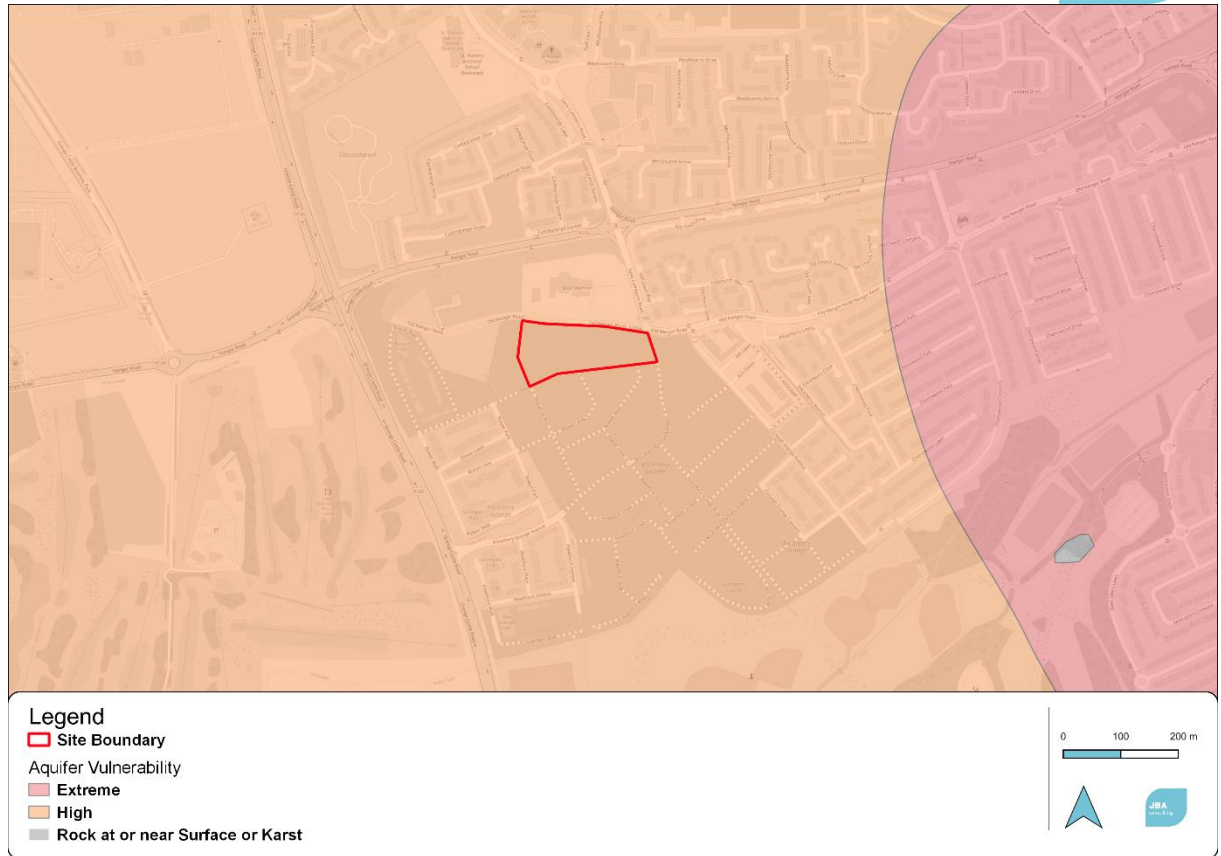


Figure 3-9: Aquifer vulnerability of the site (© OpenStreetMap contributors, 2023)

## 4 Natura 2000 Sites

### 4.1 Determining likely Zone of Influence

The DEHLG (2009) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of effect of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be affected upon, for example, through a hydrological connection.

Furthermore, the OPR guidance is to use a Source-Pathway-Receptors model, therefore only directly connected sites will be retained (OPR, 2021).

The Natura 2000 sites within the ZOI are all connected hydrologically and are listed in Table 4-1 below and their locations are shown in Figure 4-1 (overleaf). Site descriptions, Qualifying Interests (QIs) and threats/pressures for the below Natura 2000 sites are provided in Table 4-2 .

Table 4-1: Natura 2000 sites located within the Zone of Influence (Zoi) of the proposed development.

Natura 2000 site	Site Code	Approximate Distance from Site	Hydrological Distance from Site
North Bull Island SPA	004006	13.5km	18.2km (indirect)
North Dublin Bay SAC	000206	16.6km	19km (indirect)
South Dublin Bay and River Tolka Estuary SPA	004024	14km	18km (indirect)
South Dublin Bay SAC	000210	14km	18.8km (indirect)
North-west Irish Sea cSPA	004236	18.3km	20.8kn (indirect)

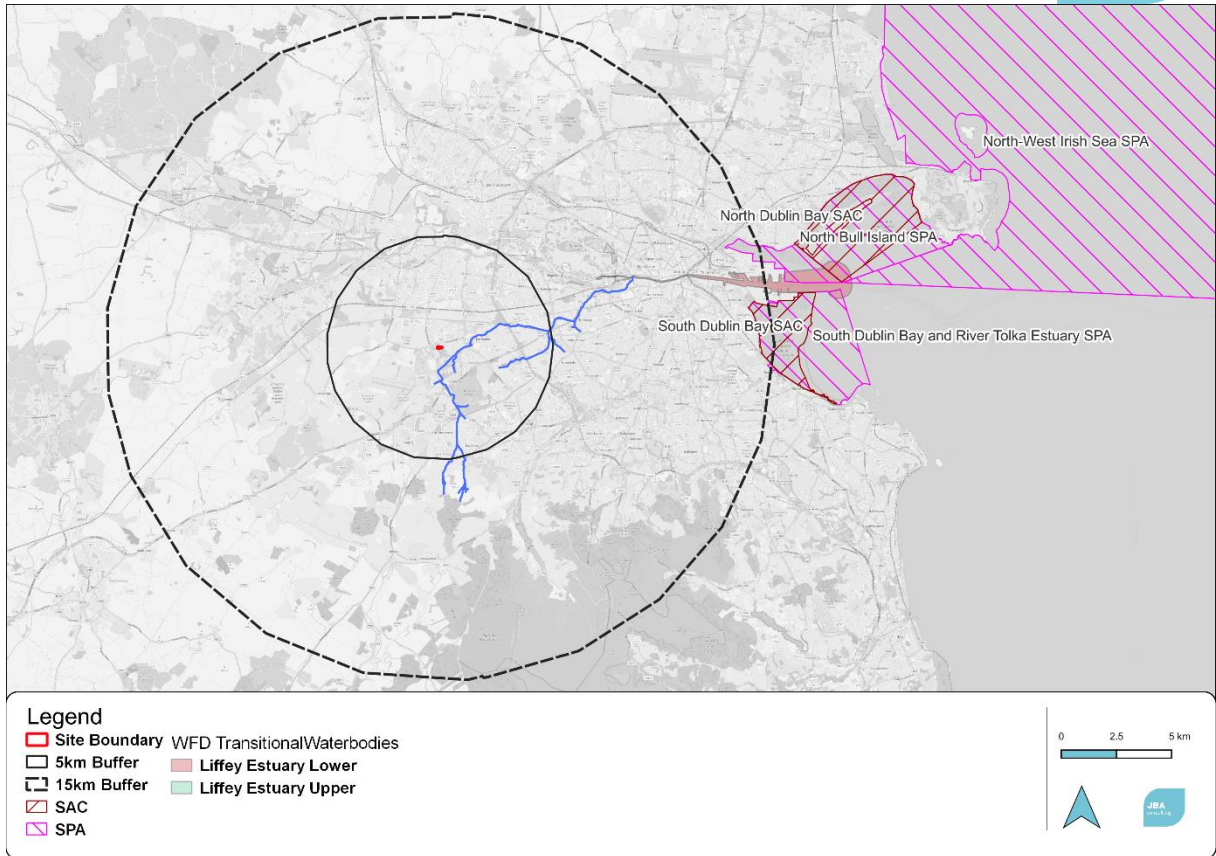


Figure 4-1: Natura 2000 sites within the 5km ZoI and with an extended 15km hydrological connection (OSM, 2023)

As pollutants can be transported via watercourses and end up in Dublin Bay, the potential effect on the North Dublin Bay Natura 2000 sites are assessed in detail in Section 6. Site descriptions, Qualifying Interests (QI) and threats/pressures for the above Natura 2000 sites are provided in Table 4-2.



Table 4-2: Site briefs; Qualifying Interests; and project-relevant threats /pressures and their effects and sources in relation to the Natura 2000 sites within the 5km ZoI (including hydrological connectivity extension).

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
South Dublin Bay SAC [000210]	The intertidal flats at their widest points are 3km with channels existing at largest with Cockle Lake. A small sandy beach occurs near to Dun Laoighaire, with an almost entire artificial embankment. The sediments from the Tolka Estuary vary from thixotropic mud with a high organic content in the inner estuary to a well aerated and exposed sand system off the Bull Wall. Insights show that many birds who winter in South Dublin Bay do not continue towards North Dublin Bay. (NPWS, 2015a)	<ul style="list-style-type: none"> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Embryonic shifting dunes [2110]</li> </ul>	<p>Roads, motorways Low impact (outside)</p> <p>Urbanised areas, human habitation High impact (outside) (EEA, 2020a)</p>
North Dublin Bay SAC [000206]	This SAC extends from the inner part of North Dublin Bay, and primarily focuses on North Bull Island. Dynamic dune systems and saltmarshes are found along this region. A variety of important and rare flora habituate this SAC, including Lesser Centaury, Red Hemp-nettle, and Meadow Saxifrage. North Dublin Bay is also of international importance for waterfowl as it hosts Brent Goose, Knot, Bar-tailed Godwit, Oystercatcher, Ringed Plover, Sanderling, and Dunlin (NPWS, 2013).	<ul style="list-style-type: none"> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows <i>Glauco-Puccinellietalia maritimae</i> [1330]</li> <li>- Mediterranean salt meadows <i>Juncetalia maritimi</i> [1410]</li> <li>- Embryonic shifting dunes [2110]</li> <li>- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> <li>- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</li> <li>- Humid dune slacks [2190]</li> <li>- Petalwort <i>Petalophyllum ralfsii</i> [1395]</li> </ul>	<p>Urbanised areas, human habitation: High impact (outside)  (EEA, 2020b)</p>
South Dublin Bay and River Tolka Estuary SPA [004024]	This site covers a large part of the Dublin Bay, including the intertidal area of the River Liffey and Dun Laoghaire, along with the estuary of the River Tolka to the north of the River Liffey and Booterstown Marsh. The south of the bay has intertidal flats that at their widest extend for almost 3km. The site is important for wintering fowl, integral for the importance of the Dublin Bay complex (NPWS, 2015b).	<ul style="list-style-type: none"> <li>- Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]</li> <li>- Oystercatcher <i>Haematopus ostralegus</i> [A130]</li> <li>- Ringed Plover <i>Charadrius hiaticula</i> [A137]</li> <li>- Grey Plover <i>Pluvialis squatarola</i> [A141]</li> <li>- Knot <i>Calidris canutus</i> [A143]</li> <li>- Sanderling <i>Calidris alba</i> [A144]</li> <li>- Dunlin <i>Calidris alpina</i> [A149]</li> <li>- Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</li> </ul>	<p>Roads, motorways Low impact (outside)</p> <p>Urbanised areas, human habitation High impact (outside)  (EEA, 2020c)</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
		<ul style="list-style-type: none"> <li>- Redshank <i>Tringa totanus</i> [A162]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Roseate Tern <i>Sterna dougallii</i> [A192]</li> <li>- Common Tern <i>Sterna hirundo</i> [A193]</li> <li>- Arctic Tern <i>Sterna paradisaea</i> [A194]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>	
<p>North Bull Island SPA [004006]</p>	<p>This site covers all the inner part of north Dublin Bay, with the seaward boundary extending from Bull Wall lighthouse to Howth Head. The spit in the north is relatively recent, almost 5km long, 1km wide and running parallel to the coast between Clontarf and Sutton. The saltmarsh extends the length of the landward side of the island, providing the main site for wintering bird roosting in Dublin Bay. The wintering waterfowl use two lagoons as their primary feeding grounds, these lagoons are divided by a causeway. (NPWS, 2014)</p>	<ul style="list-style-type: none"> <li>- Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]</li> <li>- Shelduck <i>Tadorna tadorna</i> [A048]</li> <li>- Teal <i>Anas crecca</i> [A052]</li> <li>- Pintail <i>Anas acuta</i> [A054]</li> <li>- Shoveler <i>Anas clypeata</i> [A056]</li> <li>- Oystercatcher <i>Haematopus ostralegus</i> [A130]</li> <li>- Golden Plover <i>Pluvialis apricaria</i> [A140]</li> <li>- Grey Plover <i>Pluvialis squatarola</i> [A141]</li> <li>- Knot <i>Calidris canutus</i> [A143]</li> <li>- Sanderling <i>Calidris alba</i> [A144]</li> <li>- Dunlin <i>Calidris alpina</i> [A149]</li> <li>- Black-tailed Godwit <i>Limosa limosa</i> [A156]</li> <li>- Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</li> <li>- Curlew <i>Numenius arquata</i> [A160]</li> <li>- Redshank <i>Tringa totanus</i> [A162]</li> <li>- Turnstone <i>Arenaria interpres</i> [A169]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>	<p>No project-relevant threats or pressures (EEA, 2020d)</p>
<p>North-west Irish Sea cSPA [004236]</p>	<p>The North-west Irish Sea cSPA constitutes an important resource for marine birds, it includes the estuaries and bays that open into it along with the collection of intertidal and subtidal habitats that stretch along the coast. These areas provide habitats for foraging and maintenance for QI seabirds on the north-west Irish Sea's islands and coastal headlands which are important during and outside the breeding period. The site is of conservation interest for many bird species (NPWS, 2023).</p>	<ul style="list-style-type: none"> <li>- Common Scoter <i>Melanitta nigra</i> [A065]</li> <li>- Red-throated Diver <i>Gavia stellata</i> [A001]</li> <li>- Great Northern Diver <i>Gavia immer</i> [A003]</li> <li>- Fulmar <i>Fulmarus glacialis</i> [A009]</li> <li>- Manx Shearwater <i>Puffinus puffinus</i> [A013]</li> <li>- Shag <i>Phalacrocorax aristotelis</i> [A018]</li> </ul>	<p>No published threats or pressures by NPWS to date.</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
		<ul style="list-style-type: none"> <li>- Cormorant <i>Phalacrocorax carbo</i> [A017]</li> <li>- Little Gull <i>Larus minutus</i> [A177]</li> <li>- Kittiwake <i>Rissa tridactyla</i> [A188]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Common Gull <i>Larus canus</i> [A182]</li> <li>- Lesser Black-backed Gull <i>Larus fuscus</i> [A183]</li> <li>- Herring Gull <i>Larus argentatus</i> [A184]</li> <li>- Great Black-backed Gull <i>Larus marinus</i> [A187]</li> <li>- Little Tern <i>Sterna albifrons</i> [A195]</li> <li>- Roseate Tern <i>Sterna dougallii</i> [A192]</li> <li>- Common Tern <i>Sterna hirundo</i> [A193]</li> <li>- Arctic Tern <i>Sterna paradisaea</i> [A194]</li> <li>- Puffin <i>Fratercula arctica</i> [A204]</li> <li>- Razorbill <i>Alca torda</i> [A200]</li> <li>- Guillemot <i>Uria aalge</i> [A199]</li> </ul>	

\* = priority Annex I habitat

# = indirect threat via the increase in the local populace and recreational activities as a result of the development.

## 5 Other Relevant Plans and Projects

### 5.1 Cumulative Effects

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative effects must also be considered at this stage.

### 5.2 Plans

The following projects or plans were identified as potential sources of cumulative effects:

- South Dublin County Development Plan 2022-2028
- Greater Dublin Drainage Strategy
- Third Cycle River Basin Management Plan for Ireland 2022-2027
- Planning Applications (retrieved from Data.gov.ie - Planning Application Sites, October 2023)

#### 5.2.1 South Dublin County Development Plan 2022-2028

The proposed plan's development is in line with the South Dublin County Development Plan 2022-2028. It is an objective of the Plan to ensure that all development within the County conforms to eight key design principles which includes the promotion of sustainable energy and environmental services. These goals include:

NPO 52 requires that the planning system will 'be responsive to our national environmental challenges and ensure that development occurs within environmental limits, having regard to the requirements of all relevant environmental legislation and the sustainable management of our natural capital.

The Plan also aims to protect and enhance surface water quality, to support, improve and protect Natura 2000 sites, and to develop an integrated Green Infrastructure network to enhance biodiversity, provide accessible parks, open spaces and recreational facilities (SDCC, 2022a). The plan also states that work will be in conjunction with Irish Water to protect existing water and drainage infrastructure, to promote investments aiming to support environmental protection and facilitate the sustainable growth of the county (SDCC, 2022a).

A Screening for Appropriate Assessment was carried out on the plan, which was concluded that an Appropriate Assessment was necessary for this project. The associated Natura Impact Report concluded that there are no likely significant direct, indirect, or secondary impacts of the project on any Natura 2000 sites (SDCC, 2022b), **therefore the SDCC Development Plan is not anticipated to contribute to cumulative or in-combination effects.**

#### 5.2.2 Greater Dublin Drainage Strategy

The Greater Dublin Drainage Strategy sets out the strategic planning for the development of waste water treatment in the Greater Dublin area in relation to the Ringsend WWTP Upgrade, Greater Dublin Drainage Project and associated wastewater network drainage projects (Irish Water, 2018b). The Ringsend WWTP Upgrade includes plans to expand the WWTP to its ultimate capacity, together with associated network upgrades required. The Greater Dublin Drainage Project is planned to relieve both the Ringsend WWTP and network loading by construction of a new WWTP at Clonshaugh, an orbital sewer and provision of an outfall pipe discharging 1km north-east of Ireland's Eye. The Ringsend WWTP upgrade is in progress and carried out in stages, with an increased capacity of 400,000 PE by Q1 2020 and the ultimate capacity of 2.4 million PE to be in operation by 2024 (Irish Water, 2018b). The Greater Dublin Drainage Project is strategically important to the Dublin Region in that it will provide capacity for residential and commercial growth (Irish Water, 2018b).

**Overall, the Greater Dublin Drainage Strategy is not considered to adversely effect any Natura 2000 site, nor is it expected to contribute to any cumulative or in-combination effects.**

#### 5.2.3 River Basin Management Plan for Ireland 2018-2021 / 2022-2027

The 2nd cycle River Basin Management Plan (RBMP) for Ireland 2018-2021 sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2021 (DoHPLG, 2018a). Changes from previous River Basin Management Plans is that all River Basin Districts are merged as one national River Basin District. The

Plan provides a more coordinated framework for improving the quality of our waters — to protect public health, the environment, water amenities and to sustain water-intensive industries, including agri-food and tourism, particularly in rural Ireland.

The first cycle of River Basin Management Plans included the Eastern River Basin District - River Basin Management Plan 2009 – 2015 (WFD, 2010). The plans summarised the waterbodies that may not meet the environmental objectives of the WFD by 2015 and identified which pressures are contributing to the environmental objectives not being achieved. The plans described the classification results and identified measures that can be introduced in order to safeguard waters and meet the environmental objectives of the WFD.

- Prevent deterioration of water body status.
- Restore good status to water bodies.
- Achieve protected areas objectives.
- Reduce chemical pollution of water bodies

The River Basin Management Plan for Ireland (2018-2021) outlines the new approach that Ireland will take to protect our waters over the period to 2021. It builds on lessons learned from the first planning cycle in a number of areas:

- stronger and more effective delivery structures have been put in place to build the foundations and momentum for long-term improvements to water quality
- a new governance structure, which brings the policy, technical and implementation actors together with public and representative organisations. This will ensure the effective and coordinated delivery of measures.

Ireland's third River Basin Management Plan 2022-2027 (EPA, 2021a) was out for public consultation until March 31st 2022. The Consultation report was published in July 2022. Following review of the submissions, the DHLGH will commence a review and where necessary update the draft RBMP with a view to finalisation and publication in Q3/Q4 of 2022.

The 3rd cycle draft Catchment Reports were published in August 2021. The draft Catchment Reports provides a summary of the water quality assessment outcomes for respective catchments, including status and risk categories, significant threats and pressures, details on protected areas and a comparison between cycle 2 and cycle 3.

The third cycle draft Catchment Report for Liffey and Dublin Bay Catchment (EPA, 2021b) identified that between Cycles 2 and 3 there has been an overall slight improvement in the catchment's status. The overall change in quality between Cycles 2 and 3 include 8 waterbodies achieving a High Status, which is an increase three, 46 which are achieving a Good Status which remains unchanged between Cycles, 18 achieving a Moderate Status which is a decrease by four waterbodies, 9 achieving a Poor Status which remains unchanged between Cycles, and 2 achieving a Bad Status which is an increase of one.

**The Third Cycle River Basin Management Plan for Ireland 2022-2027 is not anticipated to contribute to cumulative or in-combination effects.**

### 5.3 SDCC Kilcarbery Masterplan

The proposed project is an extension of a parent plan and is adjoining an additional pre-existing scheme outside of the site boundary. The overall plan of the adjoining project consists of the construction of 1,034 residential units which includes:

578 no. houses, 154 no. duplex / apartments and 3/02 no. apartments ranging from 2 to 6 storeys comprised of the following:

- 578no. own door houses, including
  - 449no. 3-bed 2-storey houses
  - 31no. 4-bed 2-storey houses
  - 31no. 4-bed 2-storey houses
  - 98no. 4-bed 3-storey houses
- 154no. own door duplex / apartments in 3 to 4 - storey buildings, including:
  - 41no. 1-bed duplex / apartments.

- 49no. 2-bed duplex /apartments
- 64no. 3-bed duplex / apartments.
- 302no. apartment units accommodated in 9no. 4 to 6-storey buildings (with own door access ground floor apartments), including:
  - Block 1 accommodating 29no. apartments (6no. 1-bed, 18no. 2-beds and 5no. 3beds)
  - Block 2 accommodating 24no. apartments (4no. 1-beds, 15no. 2-beds and 5no. 3beds).
  - Block 3 accommodating 30no. apartments (13no. 1-beds and 17no. 2-beds).
  - Block 4 accommodating 30no. apartments (13no. 1-beds and 17no. 2-beds).
  - Block 5 accommodating 45no. apartments (12no. 1-beds, 22no. 2-beds and 11no. 3-beds)
  - Block 6 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds).
  - Block 7 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds/) - Temporary creche at ground floor level to revert 7no. residential units on completion of permanent purpose-built creche in Phase 3.
  - Block 8 accommodating 33no. apartments (5no. 1-beds, 23no. 2-eds and 5no. 3-beds)
  - Block 9 accommodating 37no. apartments (16no. 1-beds and 21no. 2-beds)
- Private rear gardens provided for all houses. Private patios / terraces and balconies are provided for all duplex and apartment units. Upper-level balconies are proposed on elevations of multi-aspect duplex and apartment buildings.
- Ancillary uses include the provision of 1no. retail unit (c. 178sq. m) and community building (c. 785 sq. m)
- 1no. temporary creche (c. 557 sq. m gross floor area in lieu of 7no. ground floor apartment units in Block 7 pending construction of permanent creche at Grange Square)
- 1no. permanent creche building at Grange Square (c 9/09 sq. m gross floor area).
- New vehicular access from Outer ring Road / Grange Castle Road (R136) to the west (left in and left out arrangement) and 2no. new vehicular access points onto Old Nangor Road (L5254) to the north and associated re-alignment of existing adjoining roadways.
- New street network, including spine road (c. 6m in width) extending from Outer Ring Road / Grange Castle Road (R136) to the west onto Old Nangor Road (L5254 to the north.
- New pedestrian and cycle path network.
- Provision of Public Open Space (c. 4.6 Ha) including:
  - Oak Green Space (c. 7,453 sq. m).
  - Lime Green Space (c. 6646 sq. m).
  - Provision of surface water attenuation measures (SuDS).
- Wastewater pumping station including 18hr storage tank and associated infrastructure.
- 1,510no. surface car parking spaces
- 1,105no. covered bicycle parking spaces.
- Communal bin storage for all terraced houses, duplex / apartment, and apartment blocks.
- All associated and ancillary site development, infrastructural, landscaping and boundary treatment works including bin storage.

The Masterplan includes the removal of Hedgerow, Treeline and Dry meadow habitats, while also including remedial planting as compensatory measure and natural habitat provisions. A screening assessment of the Kilcarbery Masterplan was completed by Scott Cawley Ltd (2023). Overall, it was concluded that it **is not considered to adversely effect any Natura 2000 site, nor is it expected to contribute to any cumulative or in-combination effects.**

## 5.4 Other Projects

Other projects dating back three years are listed in Table 5-1 (overleaf), which are not retention applications, home extensions and/or internal alterations, and have been granted planning permission in the locality of the proposed site.

The developments permitted below have the potential to have overlapping construction and short-term residual effects with the proposed project and therefore, in the absence of mitigation measures, these developments may result in potential in-combination or cumulative effects given their proximity to the local Natura 2000 sites.

Table 5-1: Other projects within approximately 2km which may have an accumulative effect on the development of the project

Planning Reference	Address	Application Status	Decision date	Summary of development
LRD23A/0005	Townlands of Kilcarbery, Corkagh Demesne, Deansrath and Nangor, Co. Dublin	Permission Granted	28/08/2023	Amendments to the permitted Strategic Housing Development (An Bord Pleanála Ref. ABP-305267-19 as amended by ABP-312219-21) consisting of:- An increase in the size of the permitted retail unit at Ground Floor of Apartment Block 2 from c.185 sq.m GFA to 270 sq.m GFA achieved by the omission of 1 no. 2 bed unit and associated elevational changes and localised reconfiguration of the adjacent communal open space. Replacement of 4 no. permitted bin / bicycle store structures with larger structures and associated localised adjustments to landscaping layout. The overall number of residential units under An Bord Pleanála Ref. ABP-305267-19 as amended by ABP-312219-21 decreases by 1 no. unit from 1,034 no. to 1,033 no. units (578 no. houses and 455 no. apartments) as a result of the proposed development. The scheme is as otherwise permitted under An Bord Pleanála Ref. ABP-305267-19 as amended by ABP-312219-21.
SD21A/0217	Profile Park, Nangor Road, Clondalkin, Dublin 22	Permission Granted	02/08/2022	10 year permission for development consisting of removal of an existing unused waste water treatment facility on site and the erection of two data centre buildings, gas powered energy generation compound, and all other associated ancillary buildings and works; the two data centre buildings, DUB 15 and DUB 16, will comprise a total floor area of c. 33,577sq.m over two storeys; the first 2 storey data centre building (DUB15), located to the southwest of the site, will comprise 16,865sq.m data storage use, ancillary office use and associated electrical and mechanical plant rooms, loading bays, maintenance and storage space; a second 2 storey data centre building (DUB16), located to the southeast of the site, will comprise 16,712sq.m data storage areas, ancillary office use and associated electrical and mechanical plant rooms, loading bays, maintenance and storage space; both data centre buildings will reach a height of 20m; emergency generators and associated emission flues and plant are proposed in compounds adjacent to each data centre building; gas powered energy generation is proposed to the north east corner of the site to provide electricity for the proposed development; the application proposes to re-route and widen an existing watercourse constructed following an earlier planning permission; it is proposed to reroute this watercourse along the eastern and southern boundary of the site; landscaping is proposed to the south of the site to screen the buildings; fencing and security gates are proposed around the site; new access roads within the site are proposed along with 71 car parking spaces and 26 cycle spaces, bin stores, site lighting, and all associated works including underground foul and storm water drainage attenuation and utility cables and all other ancillary works; a Natura Impact Statement will be submitted to the planning authority with the application.
SD23A/0039	Grange Castle Business Park, Nangor Road, Clondalkin, Dublin 22	Permission Granted	24/04/2023	Provision of an establishment to which to European Communities (Major Accident Hazards involving Dangerous Substances) Regulations 2006 as amended by Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 apply, constituting a change of use; The new establishment will include all the existing and permitted



Planning Reference	Address	Application Status	Decision date	Summary of development
				buildings (SD13A/0143 as amended by SD13A/0265, SD14A/0194 as amended by SD15A/0343, SD16A/0088 as amended by AD17A/0318 & SD20A/0283, SD21A/0203 & SD21A/0288, all within an existing campus; The proposal relates to the total quantum of fuel oil to be stored within existing and permitted tanks across the existing and permitted buildings; For the avoidance of doubt no works or physical development is proposed and the application relates to an existing development which comprises or is for the purpose of an activity requiring an integrated pollution prevention and control (IE) licence.
SD21A/0012	Buckandhounds, Bedleshill, Kingswood, Brownsbarn, Cheeverstown & Belgard, Fortunestown, Tallaght, Dublin 24	Permission Granted	23/03/2021	Deepening of part (c. 43ha.) of the existing and permitted quarry (An Bord Pleanala refs. 301177 & QD0026) to a quarry floor level of -10mOD using conventional blasting techniques; use of mobile processing plant; product stockpiles; final restoration scheme and all ancillary works within a planning application area of 49.4ha and within the overall landholding of 241.6ha and will be accompanied by an Environmental Impact Assessment Report (EIAR).
SD21A/0239	Kingswood Business Park, Baldonnel, Dublin 22.	Permission Granted	28/02/2022	Alterations to an existing granted planning application (previously granted permissions Reg. Ref. SD18A/0314 [ABP-304148-19], SD19A/0408, SD20A/0187); reconfiguration of the ground floor area consisting of a new ancillary storage area to the proposed building's eastern elevation measuring 75sq.m, at mezzanine level; change of use of 57sq.m of warehouse floor area to staff facilities due to the following, addition of single storey fire protected corridor from Office A to in the south-west corner of the warehouse, overall 45sq.m floor area addition; addition of stairs from warehouse to mezzanine level, overall 12sq.m floor area addition; elevation alterations, introduction of covered glazed structure at the main Office entrance to the front (southern) elevation, overall height 6.18m; introduction of Integrated Modular Louvre System to Charging Area to the front (southern) and side (eastern) elevation; change of colour of southern elevation warehouse canopy to Anthracite; introduction of fire escape doors to the side (eastern) elevation; site plan alterations, omission of an existing roundabout and provision of revised road junction with an access/egress to the proposed development and to the existing Business Park; provision of a new boundary fence Type A to the southern and eastern site boundary; introduction of additional 26 HGV parking spaces to the western concrete yard (overall area 1547sq.m) and the omission of car parking at the same location; introduction of 8 van parking spaces (overall area 240sq.m) and rearrangement of the car parking spaces due to introduction of the above changes, plus addition of gas tank and generator; associated drainage layout adjustments due to the inclusion of the above alterations; all other details such as landscaping, external surface finishes etc. will remain as per the aforementioned granted planning applications.

## 5.5 Summary

The County and Local Development Plan; RBMP and projects within the locality of the proposed project are considered in combination with the currently proposed project in the Screening Assessment section below.

## 6 Screening Assessment

### 6.1 Introduction

This screening exercise will focus on assessing the likely adverse effects of the project on the Natura 2000 sites identified in Section 4 above.

This section identifies the potential effects which may arise as result of the proposed project. It then goes on to identify how these effects could potentially effect Natura 2000 sites listed in Table 4-1. The significance of potential effects is also assessed, with any potential in-combination effects also identified.

The Natura 2000 sites to be assessed are:

- North Bull Island SPA 004006
- North Dublin Bay SAC 000206
- South Dublin Bay and River Tolka Estuary SPA 004024
- South Dublin Bay SAC 000210
- North-west Irish Sea cSPA 004236

### 6.2 Assessment Criteria

#### 6.2.1 Description of the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to effects on the Natura 2000 sites.

Potential adverse effects that could cause a significant effect on the qualifying interests of the Natura 2000 sites, during the construction and operational phases of the project, will cause an effect on the sites via surface water pathways, groundwater pathways and land and air pathways. Surface water pathways can affect surface water quality and surface water dependent habitat quality. Groundwater pathways can affect groundwater quality and quality of groundwater dependent habitats. Land and air pathways can cause an effect by release or discharges of sediment or chemicals to surface or groundwater.

The proposed project is not anticipated to effect on the qualifying interests of the five Natura 2000 sites. The rationale for excluding effects via the main pathways is given in more detail in the following sub-section.

#### 6.2.2 Examination of the Pathways for Impact

##### 6.2.2.1 Surface Water Pathways

###### Construction Phase

The proposed project is located within the WFD Liffey and Dublin Bay catchment, and the Liffey sub-catchment (Figure 6-1). The Dublin Bay Natura 2000 sites are located downstream of the project; and surface water run-off and discharges from the permitted development will enter the River Camac via the existing surface water drainage network before flowing north-east to discharge into the River Liffey before reaching the Dublin Bay Natura 2000 sites.

Potential pollutants including diesel and engine/hydraulic oils will be utilised at the site and topsoil will be removed, while dust may be generated during excavations. These pollutants could potentially reach the local surface water infrastructure, which would ultimately result in them entering the River Camac and Dublin Bay. However, any potential surface water runoff entering the River Camac would need to travel approximately 18.2km via surface water pathway to the nearest of the Dublin Bay Natura 2000 sites.

Given the combination of the scale of works (and potential pollution generated), and the natural retention and dilution of pollutants (over 18.2km), any pollutants which exit the site and reach the Dublin Bay Natura 2000 sites, will not do so in any volume capable of resulting in adverse effects.

**Therefore, given the scale of works, natural retention and dilution of pollutants in association with the hydrological distance to any Natura 2000 sites, significant adverse effects are not anticipated for any Natura 2000 during the construction phase of the project.**

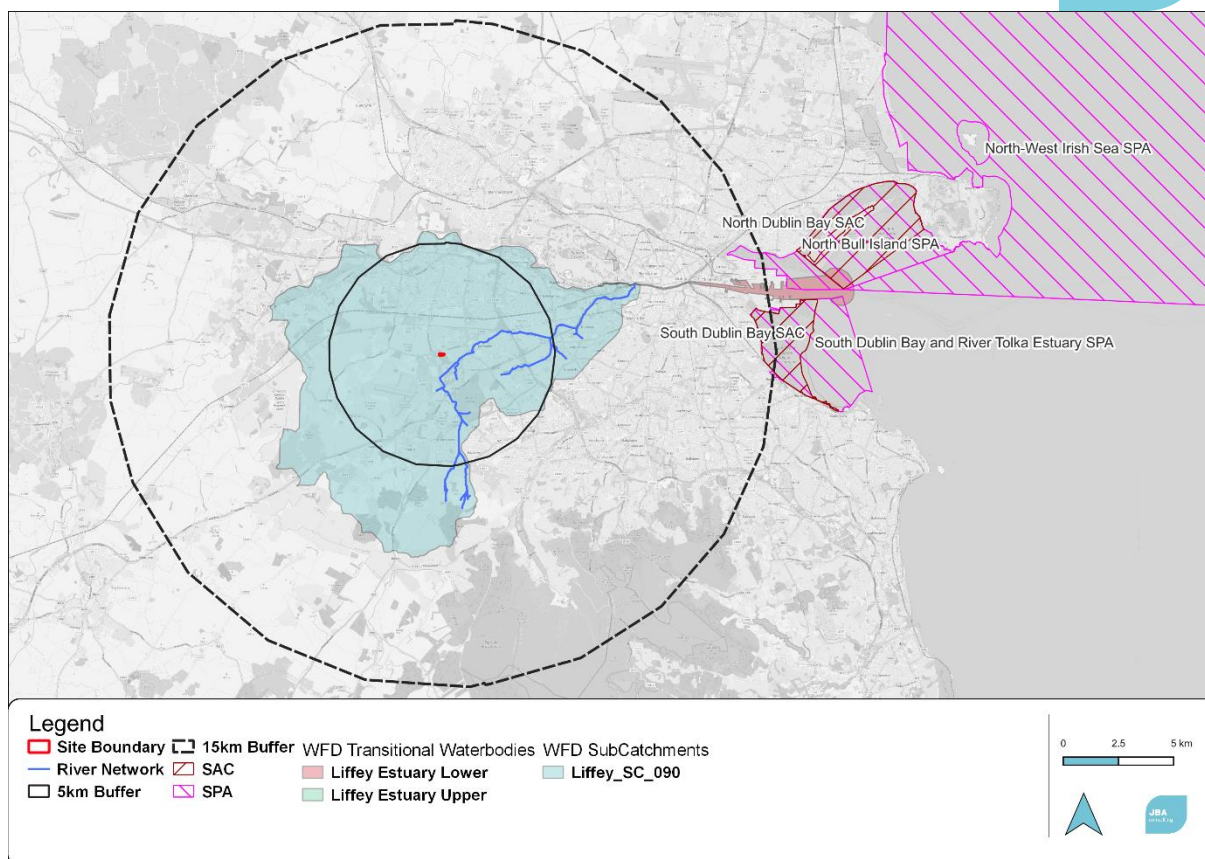


Figure 6-1: WFD sub-catchment of the surrounding area, and hydrological connection of the project site (© OpenStreetMap contributors, 2023)

### Operational Phase

The operational phase of the project will utilise integrated surface water drainage, and foul water treatment at Ringsend. These operational parameters ensure that no pollution events will occur during operations, thus ensuring no effects to the Natura 2000 sites.

**Therefore, adverse effects via surface water pollution events during the operational phase are not anticipated for any Natura 2000 sites; and their respective QIs.**

### 6.2.3 Groundwater Pathways

Potential pollutants will be utilised and generated at the site, including diesel and engine/hydraulic oils, topsoil removal and both concrete and dust generation. These pollutants could potentially reach the groundwater. The whole site is encompassed by the Dublin (IE\_EA\_G\_008) ground waterbody (Figure 6-2). The Dublin Bay Natura 2000 sites are located within the same ground waterbody as the site and possess hydrological connections to the site through the River Camac. The low recharge and retention characteristics of the groundwater and the local aquifer, result in any pollutants that reach the groundwater are likely to be discharged into the main body of the River Camac, creating a ground-surface water connection between the project and the Dublin Bay Natura 2000 sites. However, as outlined in Section 6.2.2, there are no anticipated effects from surface water pollutants on any Natura 2000 sites.

**The low retention and permeability along with the distance needed to travel to Natura 2000 sites, results in no anticipated adverse effects via groundwater pollution events during the construction and operational for the Natura 2000 sites within the Zol.**

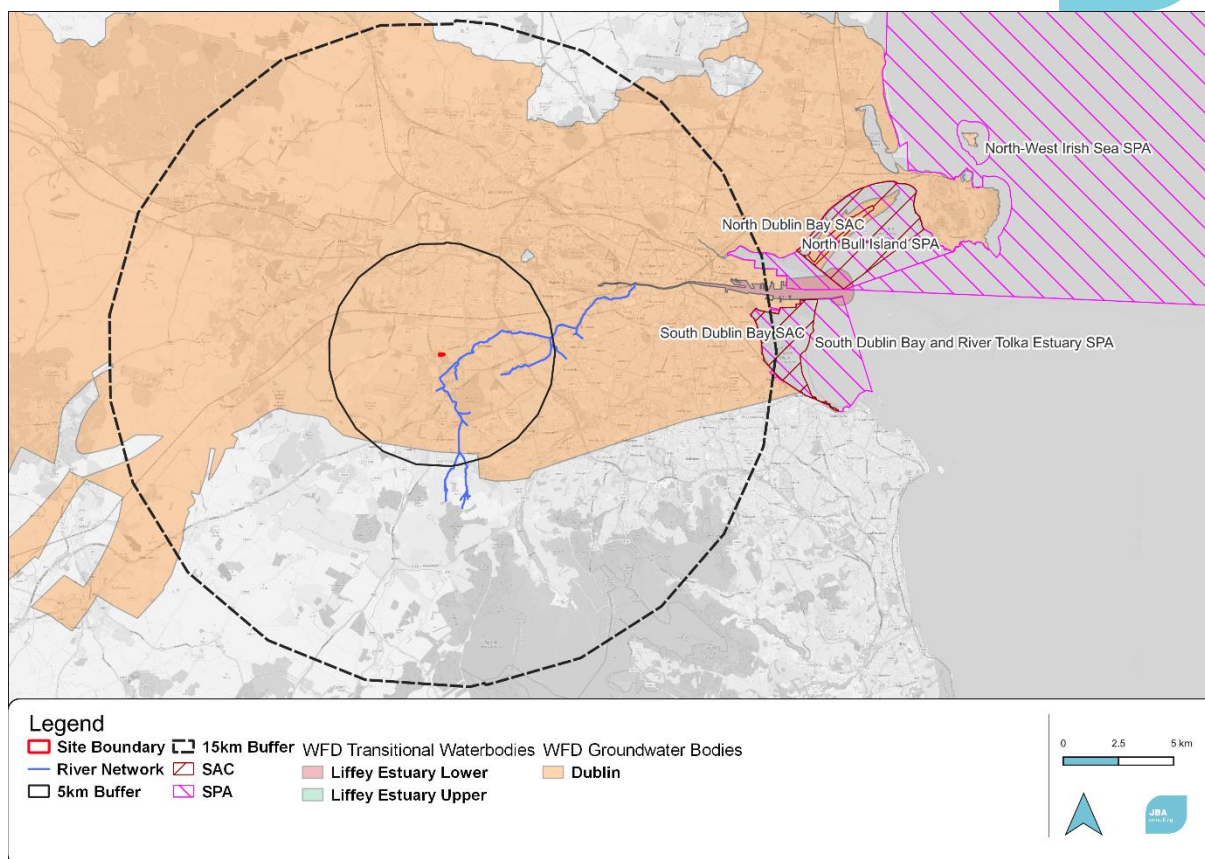


Figure 6-2: Groundwater bodies around the proposed site in respect to Natura 2000 sites (© OpenStreetMap contributors, 2023)

#### 6.2.4 Land and Air Pathways

The loss or degradation of supporting habitats outside the identified Natura 2000 sites via land- and air-based effects could have potential adverse effects on a number of the QIs associated with these Natura 2000 sites. Land and air pathways are assessed separately below.

##### Land (physical on-site and noise disturbance)

The construction works will temporarily increase the noise level and disturbance locally. Direct physical effects and indirect effects, such as visual and noise effects, do not have the potential to physically disturb habitats as well as the floral and faunal species within them due to the distance from the proposed site to any of the Natura 2000 sites within the ZoI, and the lack of any suitable ex-situ habitat for QI wintering birds of Natura sites, such as Brent Goose, within the ZoI.

**As the proposed development will not result in any physical land-take from the Natura 2000 sites within the ZoI, therefore, physical land-take effects are not anticipated for the any of the Natura 2000 sites, and their respective QIs.**

**Therefore, disturbance-based effects are not anticipated during the construction and operational phases for the any of the Natura 2000 sites, and their respective QIs.**

##### Air Pollution

Excavations at the site will produce loose top and sub-soil, and emissions may arise from working machinery. Dust release and vehicle emissions can travel considerable distances and could potentially have an effect on the QIs of Natura 2000 sites. The recommended buffer for dust and air pollution is 500m as a baseline, however, the distance and direction of travel is also influenced by wind speed and direction.

The prevailing wind in the area is south-west (based on measurements carried out between 2000-2022 at Dublin (Dublin Airport ((Windfinder.com, 2023))). Therefore, any dust that is generated on-site will most likely be transported towards the Natura 2000 sites within the ZoI. The urban setting of the

proposed route also provides barriers, such as buildings and treelines, which will prevent further dispersal of particles.

There will be an increase in local traffic attending the site during construction, resulting in an increase in NOx emissions, however, vehicular emissions and dust emissions are not anticipated to significantly affect the QIs of the any Natura 2000 sites due to the relatively small size and temporary nature of proposed works, and the prevailing wind direction.

**Therefore, due to the distance and the lack of connection, potential adverse effects via the air pathway are not anticipated during the construction phase for the Natura 2000 sites and their respective QIs.**

**Air pollution-based effects from dust / emissions are not anticipated during the operational phase of the proposed development.**

#### 6.2.5 Cumulative Effect

In assessing the plans outlined in Section 5, the respective AA screenings were consulted to assess the potential of any cumulative effects due to their proximity of the site. All of these plans were concluded to not pose any threat to Natura 2000 sites.

As the proposed project is not anticipated to have any significant effect on QIs or conservation objectives on any Natura 2000 site and based on the screening statements of the above plans and planning applications, there is no potential for other plans or projects to act in combination with it to result in likely significant effects on Natura 2000 sites.

#### 6.2.6 Summary

Due to the location of the proposed site, the temporary nature of the works and its distance to the Natura 2000 sites within the ZoI, the proposed project is not anticipated to have a likely significant effect via surface water, groundwater, groundwater to surface water, and land and air pathways to any Natura 2000 site.

#### 6.2.7 Description of likely direct, indirect or secondary effects of the project (either alone or in combination with other plans or projects) on the Natura 2000 sites

Project Elements	Comment
Size and scale	The proposed development consists of a mix of 88 units consisting of a variety of house and duplex types. The units proposed include 44 no. 3bed 2 storey houses, 8 no. 4 bed 2 storeys houses, 36 no. duplex units (varying from 1 to 3 beds) within 3 storey duplex blocks. The development includes 100 no. surface car park spaces and 110 no. bicycle parking spaces, above ground sustainable urban drainage measures, an ESB kiosk, Irish Water below-ground foul pumping station, proposed new roads, footpath and cycle-paths (including works to provide a cycle-path along a portion of the Upper Nangor Rd), public open space areas, landscape works, bin/bicycle stores and all associated ancillary site development works.
Land-take	There will be no direct land take from any of Natura 2000 sites.
Distance from Natura 2000 site or key features of the site	<ul style="list-style-type: none"> <li>• North Bull Island SPA</li> <li>• North Dublin Bay SAC</li> <li>• South Dublin Bay and River Tolka Estuary SPA</li> <li>• South Dublin Bay SAC</li> <li>• North-west Irish Sea SPA</li> </ul> <ul style="list-style-type: none"> <li>• 13.5km</li> <li>• 16.6km</li> <li>• 14km</li> <li>• 14km</li> <li>• 18.3km</li> </ul>
Resource requirements (water abstraction etc.)	There will be no water abstraction requirement.
Emissions (disposal to land, water or air)	<b>Construction Phase:</b> <b>Water</b>

Project Elements	Comment
	<p>The proposed site lacks any direct hydrological links with the Natura 2000 sites within the ZoI. The proposed development will use existing surface water drainage. The increase in hard standing surface will result in an increase in surface water runoff. Any impact on water quality will be negligible due to existing drainage infrastructure. Therefore, surface water-based emissions to the local freshwater systems flowing into the Natura 2000 sites is not anticipated.</p> <p><b>Air</b></p> <p>Excavations at the site will produce loose top and sub soil, and emissions may arise from working machinery, however, the proposed site has a west-south-west prevailing wind year-round, therefore, any dust and emissions generated on-site will most likely be transported in the direction of the Dublin Bay Natura 2000 sites. Due to the distance between the project site and these Natura 2000 sites, along with the obstruction of the wind pathway by the urban setting of the project, effects through air-based pollutants are not anticipated.</p> <p><b>Operation phase:</b></p> <p><b>Water &amp; Air</b></p> <p>The operational phase of the project will have drainage of excess water from high rainfall to percolate into new drainage systems and integrated to existing drainage systems in place. Given the nature of operations planned for the site, i.e. no polluted surface water run-off (no pollutants present on-site during operations) or foul water discharge. Therefore, there will be no permanent effects on any Natura 2000 site.</p>
Excavation requirements	Excavations for the development will range between 0.6-3m in depth, for the developments foundations and associated drainage systems.
Transportation requirements	<p><b>Temporary Effects:</b></p> <p>Levels of traffic to the site during the construction phase will increase traffic to the area but will be temporary in nature. All access to the site will be on pre-existing roads and transportation requirements will not affect Natura sites.</p> <p><b>Permanent Effects:</b></p> <p>Given the size, scale and location of the proposed project, transportation requirements will not affect Natura 2000 sites.</p>
Duration of construction, operation, decommissioning etc.	Projects of this size are anticipated to take 18 months
Other	None

#### 6.2.8 Description of likely changes to the Natura 2000 sites

Potential Effect	Comments
Reduction of habitat area	There will be no reduction in habitat area for any of the Natura 2000 sites.
Disturbance to key species	<p><b>Temporary Effects:</b></p> <p>The construction works will temporarily increase the noise level and disturbance locally. However, no significant effects are</p>

Potential Effect	Comments
	<p>anticipated to key species given scale and temporary nature of the construction phase and distance from the Natura 2000 sites.</p> <p><b>Permanent Effects:</b> No disturbance to key species is anticipated during operation of the project.</p>
Habitat or species fragmentation	There will be no temporary or permanent habitat or species fragmentation within any of the Natura 2000 sites.
Reduction in species density	There will be no temporary or permanent reduction in species density within any of the Natura 2000 sites, or any QIs of these sites.
Changes in key indicators of conservation value (water quality etc.)	There will be no temporary or permanent changes in key indicators of conservation value (surface water, groundwater and air quality).
Climate change	N/A

### 6.2.9 Description of likely impacts on the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	There will be no interference with the key relationships that define the structure of the sites.
Interference with key relationships that define the function of the site	There will be no interference with the key relationships that define the function of the sites.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Comments
Loss (Estimated percentage of lost area of habitat)	No Natura 2000 sites will experience a direct loss in habitat area.
Fragmentation	Fragmentation of habitat and/or species is not anticipated.
Disruption & disturbance	Disruption and/ or disturbance is not anticipated.
Change to key elements of the site (e.g. water quality etc.)	Potential temporary changes to key elements (i.e. water quality) of the site are not anticipated.

### 6.2.10 Describe from the above those elements of the project or plan, or combination of elements, where the above effects are likely to be significant or where the scale or magnitude of effects is unknown.

Based upon best scientific judgement, likely significant effects are not expected from the elements mentioned above, and there are no elements where the scale or magnitude of effects is unknown.

## 6.3 Concluding Statement

In carrying out this AA screening, mitigation measures have not been taken into account.

**On the basis of the screening exercise carried out above, it can be concluded that the possibility of any likely significant effects on the Natura 2000 sites within the Zol, whether arising from the project itself or in combination with other plans and projects, can be excluded beyond a reasonable scientific doubt on the basis of the best scientific knowledge available.**



# Appendices

## A Site Layout Plan



<p>01 SITE PLAN</p> <p>1:500 A1</p>	<p>Client: JBA Consulting</p> <p>Project: Residential Development at Upper Nangor Road, Kilcarbery, Co. Dublin</p> <p>Drawing No: 0100A-P-101</p> <p>Date: 1:500A1 Rev: 10</p>	<p>Project: RESIDENTIAL DEVELOPMENT AT UPPER NANGOR ROAD, KILCARBERY, CO. DUBLIN</p> <p>Drawing Title: SITE LAYOUT PLAN</p> <p>Drawing No: 0100A-P-101</p> <p>Date: 1:500A1 Rev: 10</p>	<p>Scale: 1:500</p> <p>Sheet: 10 of 10</p> <p>Date: 20/10/22</p>	<p><b>bkdarchitects</b></p> <p>www.bkdarchitects.com</p>
	<p>01 SITE PLAN</p> <p>1:500 A1</p>	<p>Client: JBA Consulting</p> <p>Project: Residential Development at Upper Nangor Road, Kilcarbery, Co. Dublin</p> <p>Drawing No: 0100A-P-101</p> <p>Date: 1:500A1 Rev: 10</p>	<p>Project: RESIDENTIAL DEVELOPMENT AT UPPER NANGOR ROAD, KILCARBERY, CO. DUBLIN</p> <p>Drawing Title: SITE LAYOUT PLAN</p> <p>Drawing No: 0100A-P-101</p> <p>Date: 1:500A1 Rev: 10</p>	<p>Scale: 1:500</p> <p>Sheet: 10 of 10</p> <p>Date: 20/10/22</p>

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