

# Residential Development Hartfield Place, Swords Road, Dublin

Appropriate Assessment  
Screening Report

March 2022

Project No.: 2020s0275

Eastwise Construction Swords Ltd

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## Contract

This report describes work commissioned by P.J Flanagan of Eastwise Construction Swords Ltd, by letter dated 31/08/2021. Malin Lundberg and Patricia Byrne of JBA Consulting carried out this work.

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## Purpose

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## Abbreviations

AA	Appropriate Assessment
BOD	Biological Oxygen Demand
CIEEM	Chartered Institute of Ecology and Environmental Management
DCC	Dublin City Council
DoEHLG	Department of Environment, Heritage and Local Government
DIN	Dissolved Inorganic Nitrogen
EC	European Communities
EPA	Environmental Protection Agency
EU	European Union
GSI	Geological Survey Ireland
IROPI	Imperative Reasons of Over-riding Public Interest
MRP	Molybdate Reactive Phosphate
NBDC	National Biodiversity Data Centre
NDDS	North Dublin Drainage System
NIR	Natura Impact Report
NO <sub>x</sub>	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
OPR	Office of the Planning Regulator
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SDH	Strategic Housing Development
SPA	Special Protection Area
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant
Zol	Zone of Influence



# 1 Introduction

## 1.1 Background

JBA Consulting Engineers and Scientists Ltd (hereafter JBA) were appointed by Eastwise Construction Swords Ltd to undertake a Screening for Appropriate Assessment in relation to the proposed Strategic Housing Development (SHD) at Swords Road, Whitehall, Dublin 9.

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.

## 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 the European Communities (Birds and Natural Habitats) Regulations 2011 (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 (DoEHLG, 2009). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1 in overleaf.

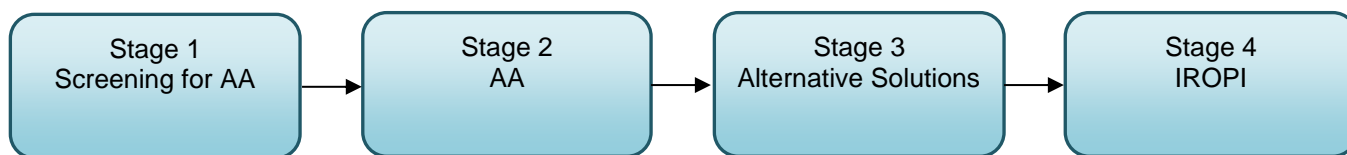


Figure 1-1: The Appropriate Assessment Process (DoEHLG, 2009)

### 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 impacts 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 impact 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 adverse impacts 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, conservation objectives, and best scientific knowledge in the field. 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 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 impacts 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 impacts need to be considered. If none can be found, the process proceeds to Stage 4.

### 1.3.4 Stage 4 - IROPI

Where adverse impacts 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 impacts 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 impacts on a site.

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

## 1.4 Methodology

### 1.4.1 Guidance documents

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:

- Appropriate Assessment Screening for Development Management (OPR, 2021).
- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (2009, rev 2010)
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2018)
- 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, 2002)
- 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, 2007)
- Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (CIEEM, 2018)

#### 1.4.2 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, accessed in August and September 2021, 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 site synopses, Natura 2000 data forms and conservation objectives were obtained along with Annex 1 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))

#### 1.4.3 Ecological Site Survey

An ecological site survey was carried out on the 28 February 2020 and a follow up survey was carried out on the 7 September 2021, including a mammal and bat survey. Any changes on the site and new plant species noted on the site visit in 2021 informed the habitat and species assessment. The mammal and bat survey informed the Biodiversity Chapter of the Environmental Impact Assessment accompanying this application and these records are not included in this AA Screening report.

The ecological walkover survey followed the methods outlined in the documents below:

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).
- Fossitt, J. (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny (Fossitt, 2000).
- 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 named and described following Fossitt (2000). Nomenclature for higher plants principally follows that given in Webb's An Irish Flora (Parnell and Curtis, 2012).



### Wintering Bird Surveys (flight lines)

Wintering birds, in particular Light-Bellied Brent Goose *Branta bernicla hrota*, utilise urban grasslands in parks and sport fields within the wider Dublin area for ex-situ grazing in the winter months. They fly between their foraging sites and roosting sites in Dublin Bay. The Light-Bellied Brent Goose *Branta bernicla hrota* is an Annex II species and a qualifying interest of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

Flight line surveys of the Light-bellied Brent Goose were carried out between December 2021 and February 2022 on the following eight dates: 01, 09 and 15 December 2021, 05 and 18 January 2022, 02, 10 and 23 February 2022. The surveys were carried out to identify if the proposed site is within the flight line of the Light-bellied Brent Goose and to what extent they fly over the site and the close vicinity of the site. Each survey was 2 hours long. Six of the surveys were carried out at dawn and two of the surveys (18 January and 10 February) were carried out at dusk. The timings were chosen as the geese tend to roost at night in the bay at North Bull Island and fly inland during the day to feed on open grasslands in Dublin. The survey techniques were adapted from NRA (2009) and Scottish Natural Heritage (2017).

Spot checks of two nearby grasslands known to have records of Light-bellied Brent Goose grazing was undertaken in combination with the flight line surveys, either after when survey was carried out at dawn or before if the survey was carried out at dusk. These sites are Clonturk Community College and St. Vincent's GAA Club, their locations in relation to the proposed site are shown in Figure 1-2.

The flight line surveys were carried out in tandem with wintering bird surveys at two other locations in north Dublin, namely DCU sports ground and Tolka Valley Park / Erin's Isle GAA, with a surveyor at each of these locations on the same dates as the surveys undertaken for the proposed development. Information from these surveys aided the current survey in understanding the movement of the Brent Goose between the Dublin Bay and inland feeding sites.

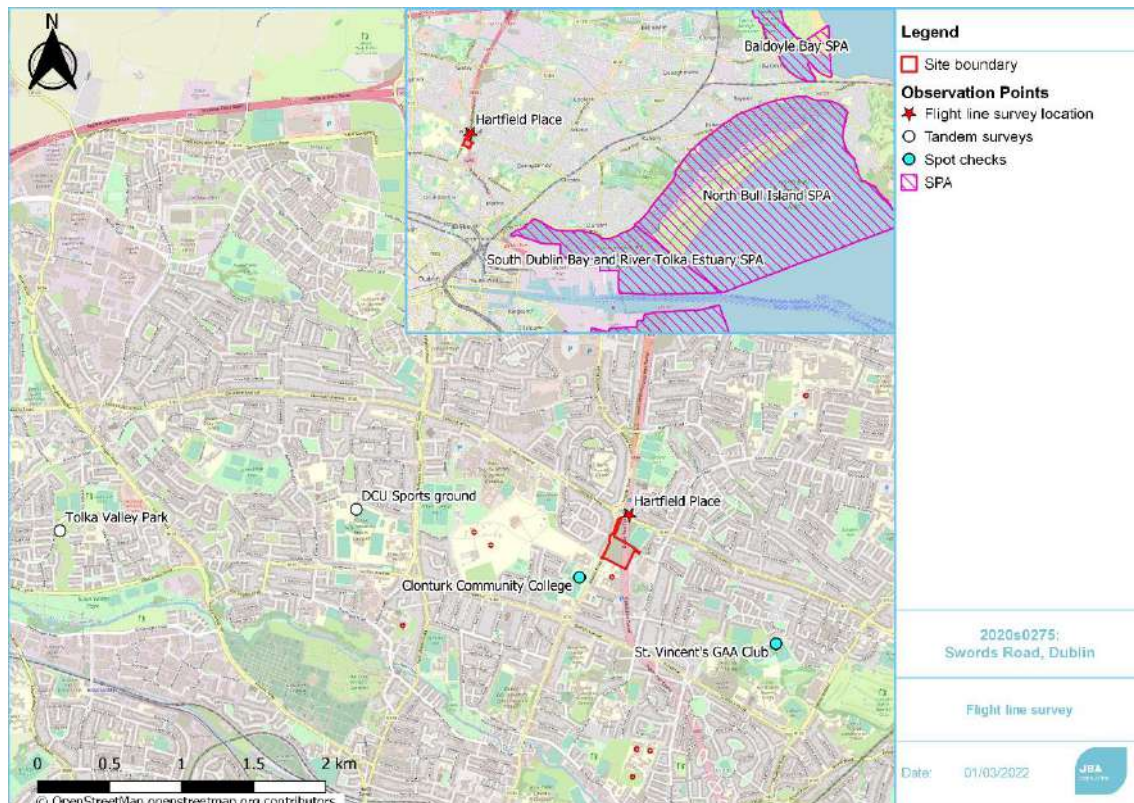


Figure 1-2: Observation location for flight line survey undertaken December 2021-February 2022, tandem surveys and location of spot checks carried out.

#### 1.4.4 In-combination Assessment

The in-combination assessment followed the process for in-combination set out by the DTA Handbook (Tyldesley and Chapman, 2013). The in-combination impacts are considered only after

the assessment of the project alone. If the result of this is that the project will have no effect at all on a European site then no in-combination assessment would be necessary. However, where there is no adverse effect on site integrity, but some adverse effect an assessment of this adverse effect in-combination with other plans or projects is carried out. Other plans or projects were searched for using the National Planning Application Database, EIA portal and Myplan.ie databases, all accessed online. If no other plans or projects are identified then the assessment is complete. Where other plans or projects are identified then initially a review is made of its AA screening, or AA, and if the Competent Authority for the plan or project has made a final determination of no effect on the integrity of any European site, either alone or in-combination, this determination is used in this assessment. Where there is not a full AA, or the findings are unclear or out of date, the plan or project documentation is checked for credible evidence of real (not hypothetical) risk to a European site. Where these are identified then a detailed assessment is carried out. A summary of the approach is presented in Figure 1-3.

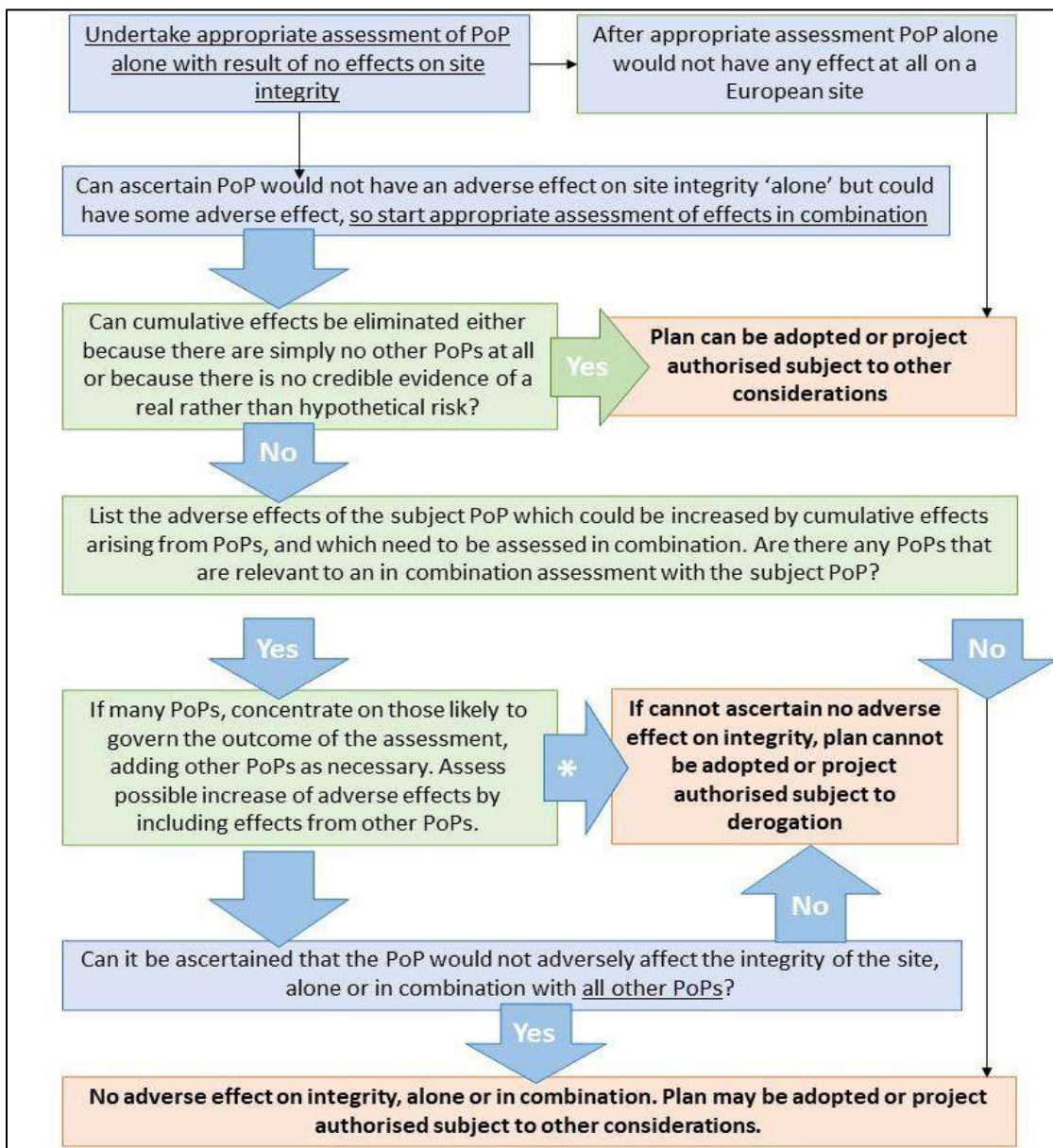


Figure 1-3: Flow diagram of process for in-combination assessment (modified from Chapman & Tyldesley, 2013).

Potential sources of cumulative impacts were identified based on the ecology of valued ecological features only for features where this is a residual or non-significant impact. Potential sources of cumulative impacts were sought within area where there is the potential for a significant impact on relevant Natura sites identified in Section 4.



## 1.5 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;
- 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 need reassessment.

## 2 Project Description

### 2.1 The 'Project'

The proposed residential development is not directly connected with or necessary to the management of any Natura 2000 site and may have potential adverse impacts upon the Natura 2000 sites identified in Section 4. Therefore, the proposed Project is subject to the requirements of the Appropriate Assessment process.

### 2.2 Site location

The proposed development is located east of Swords Road in Whitehall, Co. Dublin. Dublin City University lies approximately 450m north-west of the development site and Clontarf Golf Club lies approximately 1.8km to the south-east. Tolka River runs approximately 1.35km south of the development site. The site is bounded to the west by Swords Road, to the south by Highfield Private Hospital, to the north by vacant lands and GAA pitches and to the east by Beechlawm Nursing Home with residential development beyond (Figure 2-1).

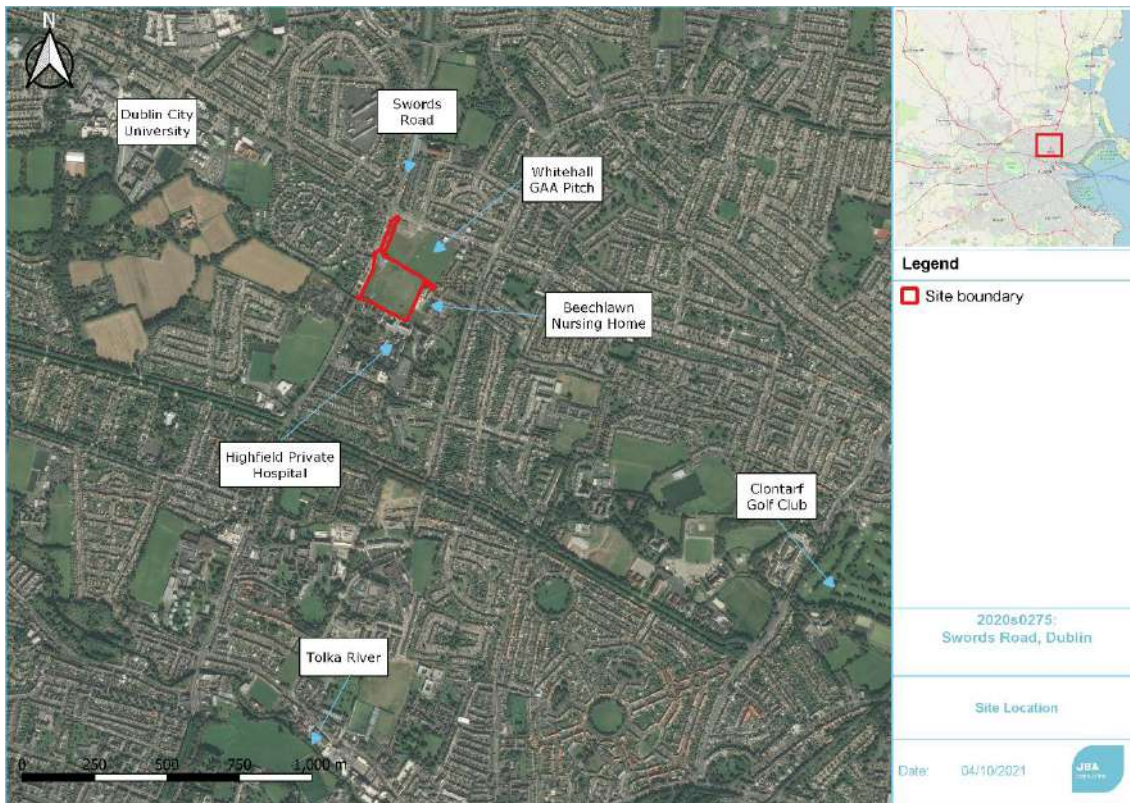


Figure 2-1: Site location

### 2.3 Proposed Project

#### 2.3.1 Project description

The proposed development will consist of the construction of 7 no. blocks in heights up to 8 storeys (over single level basement) comprising 472 no. apartment units, a creche, café unit, and internal residential amenity space. The proposal also includes car, cycle, and motorcycle parking, public and communal open spaces, landscaping, bin stores, plant areas, substations, switch rooms, and all associated site development works and services provision. Access is provided from the development from Swords Road with associated upgrades to the existing public road and footpaths. A full description of the development is provided in the statutory notices and in Chapter 3 of the EIA submitted with the application.

#### Foundations and basement

Block F and Block G have standard foundations with the following excavation requirements:



- Block F – 0.9-1.2m
- Block G – 1.6-2.75m

The basement below Block A, B, C, D and E has the required excavation depth of 4.2-5.4m, apart from the western boundary where it will be 5.4-6.1m in depth.

A site layout plan is shown in Figure 2-2 and provided in Appendix A.



Figure 2-2: Site layout (Source: CW O'Brien Architects)

### 2.3.2 Drainage

The surface water will be collected in an attenuation system located in the east and south of the site. From the attenuation system water will pass through a petrol interceptor before being discharged to the existing surface water sewers at Swords Road and Collins Avenue (High Park). The surface water will then discharge into the Tolka River.

Any surface water from the basement carpark will be collected through an underground system, drained through a petrol interceptor and discharged into a pump chamber. From the pump chamber, the water will discharge to the foul water drainage system.

The foul water drainage will be discharged through High Park to the north east of the site, discharging into the North Dublin Drainage System (NDDS). The water is treated at Ringsend Waste Water Treatment Plant (WWTP), before being discharged into the Irish Sea in Dublin Bay.

A drainage layout plan is provided in Appendix B.

## 2.4 Zone of Influence

The project will primarily affect the site only, but a wider area of influence is used for impacts relating to noise disturbance (1km), air pollution (10km), surface water (15km), with an additional 2km from connecting transitional waters to coastal areas; and any supporting habitat for SAC/SPA species (15km).

The ultimate discharge location for foul water produced on site is at Ringsend Waste Water Treatment Plant's (WWTP) discharge location, and a 15km search distance from this location, as well as the proposed development location was used to identify all designated sites with potential surface water pathway.



### 3 Existing environment

#### 3.1 Baseline conditions

The habitats and species recorded during the site visits are presented in detail in the following sections.

##### 3.1.1 Habitats

A list of habitats and species recorded during the ecological habitat survey is listed in Table 3-1 below and presented in detail in the following sections. A habitat map is provided in Figure 3-1.

Table 3-1: Fossitt (2000) habitats recorded during ecological walkover survey

Habitat	Fossitt code
Buildings and artificial surfaces	BL3
Dry calcareous and neutral grassland/Scrub	GS1/ WS1
Recolonising bare ground	ED3
Spoil and bare ground	ED2
Stone walls and other stonework	BL1
Immature woodland	WS2



Figure 3-1: Habitat Map

#### BL3 - Buildings and artificial surfaces

A rectangular area of concrete and hardcore substrate was located at the entrance to the site off Sword's Road. Another entrance off Sword's Road was located to the south of the site, where a gravelled roadway/path ran across the southern section of the site.

### GS1/ WS1 - Dry calcareous and neutral grassland /Scrub

Since its use as a construction site (2000-2006 for the Dublin Port Tunnel), the site has largely reverted to semi-natural grassland. Dry neutral grassland habitat (Figure 3-2) and scrub comprises most of the site. Plants include Cock's Foot *Dactylis glomerata*, Perennial Rye Grass *Lolium perenne*, Ragwort *Senecio Jacobea*, Willowherb *Ephelobium* spp., Thistle *Cirsium* spp., Speedwell *Veronica* spp., Dock *Rumex* spp., Creeping Buttercup *Ranunculus repens*, Cow Parsley *Anthriscus sylvestris*, Plantain *Plantago lanceolata*, Wild Carrot *Daucus carota*, Oxeye Daisy *Leucanthemum vulgare*, Meadow Vetchling *Lathyrus pratensis*, Shaggy Hawkweed *Hieracium villosum*, Black Medick *Medicago lupulina*, Creeping cinquefoil *Potentilla reptans*, Marsh Woundwort *Stachys palustris* and Common Knapweed *Centaurea nigra*.

A wetter area of grassland/scrub occurred near the site entrance. Willow, Sharp Rush *Juncus acutus*, Horsetail *Equisetum* spp. and Pendulous Sedge *Carex pendula* were common here.

Scrub and young tree saplings were scattered throughout the site including Willows *Salix* spp., Silver Birch *Betula pendula*, Hawthorn *Crataegus monogyna*, Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Blackthorn *Prunus spinosa*, Butterfly-bush *Buddleja davidii*, Bramble *Rubus fruticosus* agg., and Scot's Pine *Pinus sylvestris*. A few young Ash saplings, some covered with Ivy *Hedera hibernica* occurred along the south boundary. Many young Palm (Cabbage palm) *Cordyline australis* were scattered near the entrance to the site. Virginia Creeper *Parthenocissus quinquefolia* grows along the wall in the south eastern end of the site.

There were some cut tree trunks along the western boundary, evidence of trees having been there in the past.

A number of mature trees were located outside the site boundary, with Holm Oak to the south of the site, and two single mature specimens of Ash and Sycamore located just outside the boundary fence at the north of the site, near the site entrance on Sword's Road. These two trees were heavily covered in Ivy and the Ash had been previously topped.

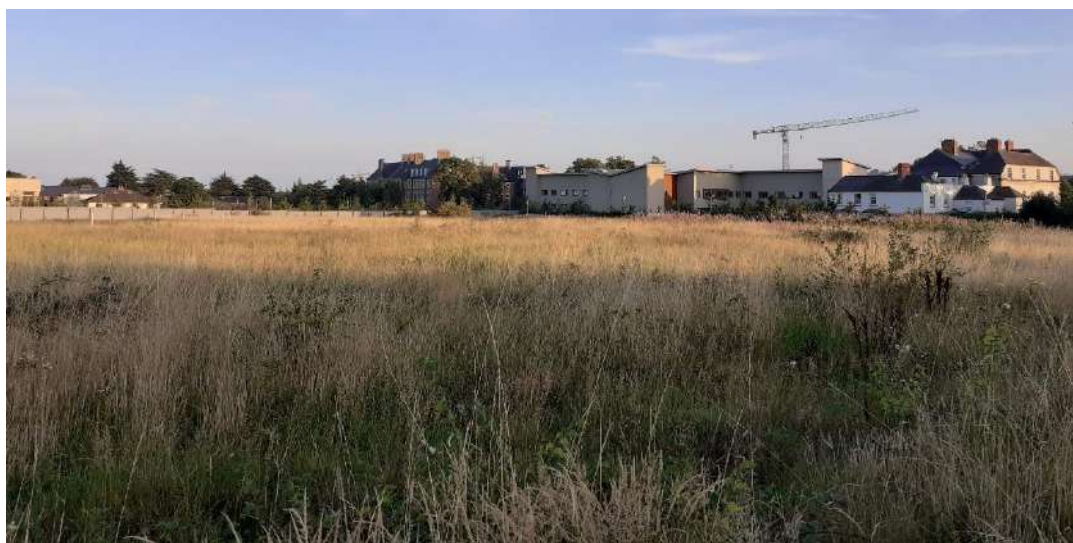


Figure 3-2: Grassland within the site (2021).

### ED3 - Recolonising bare ground

Since its use as a construction site for the Dublin Port Tunnel the site has largely reverted to semi-natural grassland, but revegetated earth banks and partially recolonised bare ground were recorded along the western boundary of the site, evidence of previous construction works.

Previous excavated areas and soil heaps on the site have revegetated with Winter Heliotrope *Petasites pyrenaicus*, Red Dead Nettle *Lamium purpureum*, Mustard *Sisymbrium* spp., Fumitory *Fumitaria* spp., Charlock *Sinapis arvensis*, Colt's-foot *Tussilago farfara*, Alexanders *Smyrniolum olusatrum*, Nettle *Urtica dioica*, Dandelion *Taraxacum* spp., Thistle, False Oat-grass *Arrhenantherum elatius*, Ragwort, Cock's Foot, Yorkshire Fog *Holcus lanatus*, Creeping Buttercup, Docks *Rumex* spp., Creeping Bent *Agrostis stolonifera*, Hogweed *Heracleum sphondylium*,



Willowherb, with Privet *Ligustrum* spp. and *Cotoneaster* spp. in places. Mosses and Stonecrop *Sedum rupestris* occurred on areas of concrete at the south east of the site.

**ED2 - Spoil and bare ground**

Adjacent to the southern access road there is an area of spoil and bare ground bound by a couple of spoil heaps which are revegetated. There is some vegetation occurring in this area, including Willowherb, Dandelion, Red Clover *Trifolium pratense* and Ribwort Plantain.

Along the northern boundary is a strip of bare ground across the site from east to west.

**WS2 - Immature woodland**

There is an area of immature woodland, consisting of Elm *Ulmus* spp., next to the eastern boundary. These trees were recorded during the survey in September 2021 and are about one year old as they were not present during the survey undertaken in February 2020.

**3.1.2 Wintering Birds**

Light-bellied Brent Goose are known to frequent large parks in Dublin to graze on short turf grass during the latter half of the winter months. However, the grassland at the proposed development site was considered unsuitable foraging habitat due to the unmanaged rough grass and scrubby habitat of the site. Brent Goose favour close cropped amenity grassland. The history of the site as a Dublin Port Tunnel construction site (2000-2006) and then as unmanaged grassland/scrub over the last number of years, would tend to preclude such birds. North of the site is a GAA pitch which would be more suitable habitat for the Brent Goose (Figure 3-3). Neither of the grasslands were recorded to be used by the Brent Goose or any other wintering bird during the wintering bird flight line survey carried out between December 2021 and February 2022.



Figure 3-3: Proposed development site (a) and GAA pitch north of site (b).

During the flight line surveys, Brent Goose were observed flying over the site on a number of occasions, though most of the observations recorded the geese flying further south of the site. Of a total of 19 observations of Brent Goose movement over the whole period, five of these were over the proposed site on three separate survey dates. On five survey dates (01/12/2021, 15/12/2021, 05/01/2022, 18/01/2022 and 10/02/2022) no geese were observed flying over the site and on three of these dates (01/12/2021, 15/12/2021 and 05/01/2022) no geese were recorded flying at all during the observation period. When the geese were observed, they were seen flying either in a westerly direction or easterly direction, which is in line with existing knowledge of their behaviour, geese from the population at North Bull Island fly to inland grasslands to feed. The geese observed during the

surveys tend to land at DCU sport grounds and Erin’s Isle GAA located further west from the site, which was confirmed by observers at these locations. During the last survey, 23/02/2022, Brent Goose flying over the site were observed to land on the grounds of Clonturk Community College which was also confirmed by a spot check after completing the survey. This was the only time Brent Goose were noted at Clonturk Community College during these surveys. At St. Vincent’s GAA sports fields one Brent Goose and nine Oystercatchers *Haematopus ostralegus* were noted during one of the spot checks, 09/12/2021.

A summary of the results of Light-bellied Brent Goose flying over the proposed development site is provided in Table 3-2 below and the full flight line survey results are provided in Appendix C.

Table 3-2: Summary of results of Brent Goose flight line survey with observations of in-flight over the proposed site.

Date and time of day	Count	Number of flocks	Estimated height over site
09-12-2021 dawn	20	1	15m
02-02-2022 dawn	50	1	15m
23-02-2022 dawn	7	1	25m
23-02-2022 dawn	80	2	20m
23-02-2022 dawn	23	1	20-25m

Brent Goose were observed flying over the site on three out of eight survey occasions (37.5% of the surveys). For two of these three occasions, only one flock was observed. More frequent observations were made on the 23rd of February where flocks were observed several times during the 2-hour survey period. During a total of 16 hours of survey, Brent Goose were observed on five separate occasions over the site and the time spent over the site was generally less than 5 seconds on each occasion.

The Light-bellied Brent Goose population at North Bull Island SPA (which is the population that forage inland across north Dublin) was 3,443 for the period 2006/07 – 2010/11 (based on mean peak for the period) (NPWS, 2014a). Recent counts for Dublin Bay (I-WeBS site 0U4040) is 3453, based on mean peak for the five-year period 2015/16 – 2019/20 (Bird Watch Ireland, 2022). This indicates that birds observed flying over the proposed site during the surveys represents less than 3% of the population and the number of individuals is considered to be low.

The estimated flight height recorded during the flight line survey was between 15-25m and the general height of the proposed buildings on site is between 20.37m – 26.75m. This means that the flight height was within the height of the proposed buildings.

### 3.2 Water bodies in proximity of the site

The proposed development site lies within the Water Framework Directive (WFD) Liffey and Dublin Bay Catchment and the sub-catchment Tolka\_SC\_020 (EPA, 2019).

The closest waterbody to the site is the Tolka River, approximately 1.35km south of the site, which flows in a west-east direction and eventually reaches Dublin Bay. Bachelors Stream is located approximately 2.68km west of the site and feeds into Tolka River. Santry River is located approximately 2.55km north of the site and flows in a west-east direction, eventually reaching North Dublin Bay (Figure 3-4).

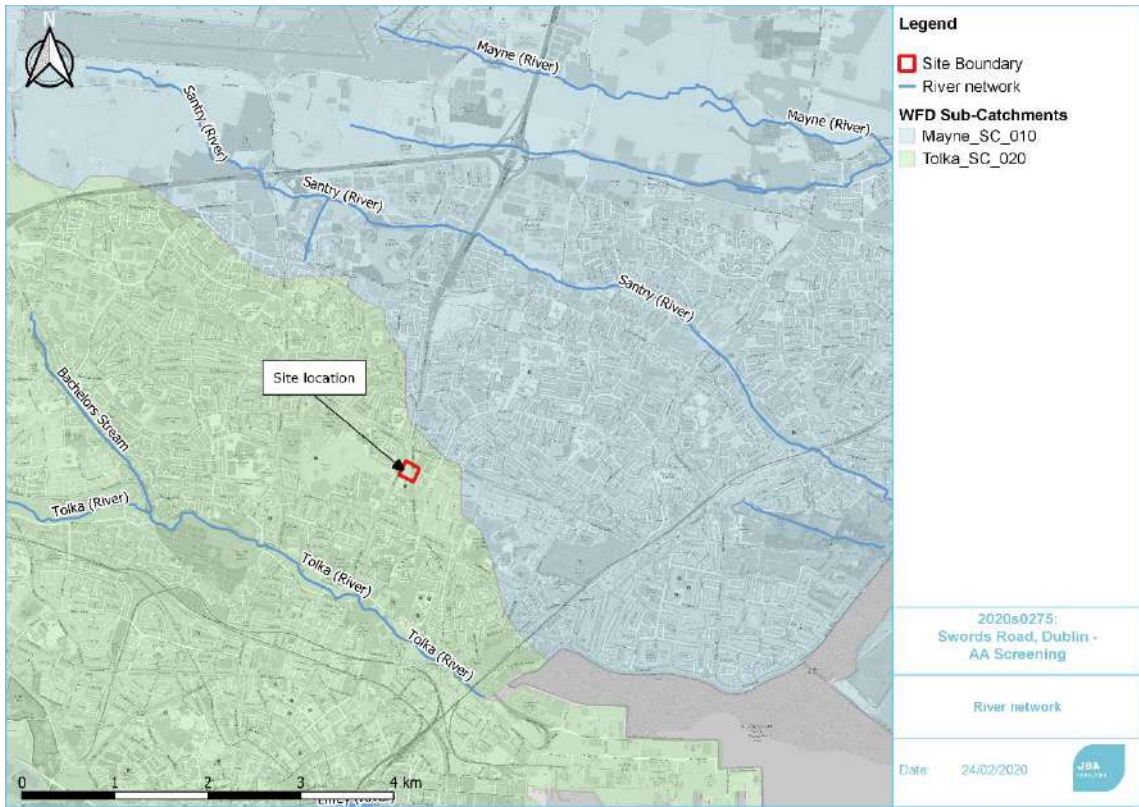


Figure 3-4: Surface water network in vicinity (EPA, 2022).



## 4 Natura 2000 sites

The DoEHLG (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 impact 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 impacted upon, for example, through a hydrological connection

As the scale of proposed works are considered of 'Project' status, and using the source-pathway receptor framework, Natura 2000 sites within a 15km range of the proposed area were examined. A surface water pathway is also present at the Ringsend WWTP outfall and a 15km hydrological range is considered around the outfall too. The Natura 2000 sites within the 15km ZoI, and/or with a hydrological connection are listed in Table 4-1 below and their locations are shown in Figure 4-1.

Table 4-1 Natura 2000 sites located within the 15km ZoI, or with a hydrological connection (15km and 2km transitional water extension)

Natura 2000 site	Site Code	Approximate direct distance from site (closest point)	Distance surface water pathway from Ringsend outfall
South Dublin Bay and River Tolka Estuary SPA	004024	2.4 km	0.2 km
North Bull Island SPA	004006	4.6 km	1.7 km
North Dublin Bay SAC	000206	4.6 km	17.2 km
South Dublin Bay SAC	000210	5.2 km	0.1 km
Baldoyle Bay SAC	000199	7.3 km	7.2 km
Baldoyle Bay SPA	004016	7.9 km	7.2 km
Malahide Estuary SPA	004025	9.3 km	11.8 km
Malahide Estuary SAC	000205	9.3 km	11.0 km
Howth Head SAC	000202	9.7 km	6.5 km
Rockabill to Dalkey Island SAC	003000	10.4 km	6.2 km
Ireland's Eye SPA	004117	11.7 km	10.1 km
Ireland's Eye SAC	002193	12.0 km	10.3 km
Howth Head Coast SPA	004113	12.4 km	8.9 km
Rogerstown Estuary SAC	000208	13.5 km	>15 km
Rogerstown Estuary SPA	004015	13.8 km	>15 km
Dalkey Islands SPA	004172	14.9 km	9.0 km



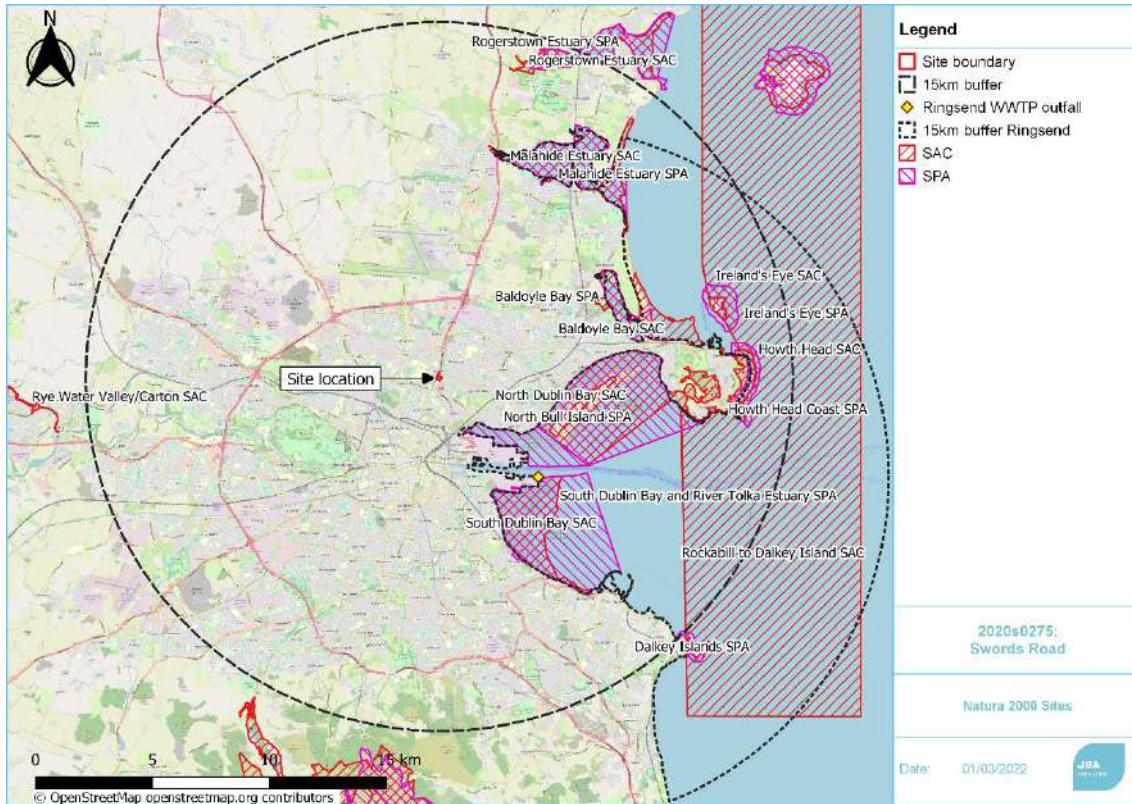


Figure 4-1: Natura 2000 sites within the ZOI (NPWS, 2021)

Not all these sites have the potential to be impacted due to their distance from the site, the existence of pathways to the receptors (qualifying interests), and the nature and sensitivities of these.

The Natura 2000 sites that are within 15km and potentially at risk from pollution via a hydrological pathway are:

- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)
- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- Rockabill to Dalkey Island SAC (003000)
- Howth Head Coast SPA (004113)

The Natura 2000 sites that are within a 10km ZOI and potentially at risk from air pollution are:

- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)
- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- Baldoye Bay SAC (000199)
- Baldoye Bay SPA (004016)
- Malahide Estuary SPA (004025)
- Malahide Estuary SAC (000205)
- Howth Head SAC (000202)

The descriptions of these Natura 2000 sites are outlined in Table 4-2 below. All other Natura 2000 sites were not anticipated to be impacted due to either distance or absence of pathways between the development site and the receiving environment.

Table 4-2 Natura 2000 sites, QIs and threats/pressures within the Zol

Site Name	Brief	Qualifying Interests	Project Relevant Threats / Pressures: Impact (Source)
South Dublin Bay and River Tolka Estuary SPA (004024)	<p>The South Dublin Bay and River Tolka Estuary SPA includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The site is important for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex. An internationally important population of Light-bellied Brent Goose <i>Branta bernicla hrota</i> occurs regularly and the site is of national importance for a further nine wintering bird species. Furthermore, the site supports a nationally important colony of breeding Common Tern <i>Sterna hirundo</i> and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit <i>Limosa lapponica</i>, Common Tern, Arctic Tern <i>Sterna paradisaea</i> and Roseate Tern <i>S. dougallii</i>. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site. (Source: NPWS, 2015a)</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]  Oystercatcher (<i>Haematopus ostralegus</i>) [A130]  Ringed Plover (<i>Charadrius hiaticula</i>) [A137]  Grey Plover (<i>Pluvialis squatarola</i>) [A141]  Knot (<i>Calidris canutus</i>) [A143]  Sanderling (<i>Calidris alba</i>) [A144]  Dunlin (<i>Calidris alpina</i>) [A149]  Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]  Redshank (<i>Tringa totanus</i>) [A162]  Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]  Roseate Tern (<i>Sterna dougallii</i>) [A192]  Common Tern (<i>Sterna hirundo</i>) [A193]  Arctic Tern (<i>Sterna paradisaea</i>) [A194]  Wetland and Waterbirds [A999]  (Source: NPWS, 2015b)</p>	<p>Roads, motorways  Medium (outside)</p> <p>Urbanised areas, human habitation  High (outside)</p> <p>Discharges  High (inside)</p> <p>(Source: (NPWS, 2017a)</p>
North Bull Island SPA (004006)	<p>The site covers all of the inner part of north Dublin Bay. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. The SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose, Black-tailed Godwit <i>Limosa limosa</i> and Bar-tailed Godwit. The site is one of the most important in the country for Light-bellied Brent Goose. A further of 14 species have populations of national importance. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]  Shelduck (<i>Tadorna tadorna</i>) [A048]  Teal (<i>Anas crecca</i>) [A052]  Pintail (<i>Anas acuta</i>) [A054]  Shoveler (<i>Anas clypeata</i>) [A056]  Oystercatcher (<i>Haematopus ostralegus</i>) [A130]  Golden Plover (<i>Pluvialis apricaria</i>) [A140]  Grey Plover (<i>Pluvialis squatarola</i>) [A141]  Knot (<i>Calidris canutus</i>) [A143]  Sanderling (<i>Calidris alba</i>) [A144]  Dunlin (<i>Calidris alpina</i>) [A149]  Black-tailed Godwit (<i>Limosa limosa</i>)</p>	<p>Roads, motorways  Medium (outside)</p> <p>Continuous urbanisation  Medium (outside)</p> <p>Discharges  Medium (both)</p> <p>(Source: NPWS, 2017b)</p>

	<p>Wildfowl Sanctuary. (Source: NPWS, 2014a)</p>	<p>[A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]</p> <p>(Source: NPWS, 2015c)</p>	
<p>North Dublin Bay SAC (000206)</p>	<p>The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment which forms the island is predominantly glacial in origin and siliceous in nature. Between the island and the mainland there occurs two sheltered intertidal areas. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site.</p> <p>Site possesses an excellent diversity of coastal habitats. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented, and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual <i>Salicornia</i> species.</p> <p>The site has five Red Data Book vascular plant species and four Red Data Book bryophyte species and is one of the most important sites for wintering waterfowl in Ireland. It is also an important site for some invertebrates of national importance. (Source: NPWS, 2017c)</p>	<p>Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]</p> <p>(Source: (NPWS, 2013a)</p>	<p>Urbanised areas, human habitation High (outside)</p> <p>Discharges High (inside)</p> <p>(Source: NPWS, 2017c)</p>
<p>South Dublin Bay SAC (000210)</p>	<p>This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. At their widest, the intertidal flats extend for almost 3 km. The seaward</p>	<p>Tidal Mudflats and Sandflats [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonising</p>	<p>Urbanised areas, human habitation High (outside)</p>



	<p>boundary is marked by the low tide mark, while the landward boundary is now almost entirely artificially embanked. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes. The site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate fauna exists. The bay has the largest stand of <i>Zostera</i> on the east coast and supports part of the important wintering waterfowl populations of Dublin Bay. It regularly has an internationally important population of Light-bellied Brent Goose, plus nationally important numbers of at least a further 6 species, including Bar-tailed Godwit. The bay is a regular autumn roosting ground for significant numbers of <i>Sterna</i> terns, including Roseate Tern. (NPWS, 2018a)</p>	<p>mud and sand [1310] Embryonic shifting dunes [2110]</p> <p>(Source: NPWS, 2013b)</p>	<p>Marine water pollution Medium (both)</p> <p>Roads, motorways Low (outside)</p> <p>Discharges Medium (both)</p> <p>Accumulation of organic material High (inside)</p> <p>(Source: NPWS, 2018a)</p>
Baldoyle Bay SAC (000199)	<p>The site comprises a relatively small estuarine and bay system in north Co. Dublin. A typical eastern estuarine system with fairly extensive intertidal sand and mud flats. Salt marshes are well represented and are at least of moderate quality. Important for wintering waterfowl, with an internationally important population of Light-bellied Brent Goose and nationally important populations of a further 6 species including Golden Plover and Bar-tailed Godwit (NPWS, 2018b).</p>	<p>Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] (NPWS, 2012a)</p>	<p>Urbanised areas, human habitation: High impact (outside)</p> <p>Discharges: Medium impact (inside)</p> <p>Walking, horse-riding and non-motorised vehicles: High impact (inside)#</p> <p>(NPWS, 2018b)</p>
Baldoyle Bay SPA (004016)	<p>As per the Baldoyle Bay SAC description.</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Wetland and Waterbirds [A999] (NPWS, 2013c)</p>	<p>Walking, horse riding and non-motorised vehicles: Medium impact (inside)#</p> <p>Urbanised areas, human habitation: High impact (outside)</p> <p>(NPWS, 2020a)</p>

<p>Malahide Estuary SPA (004025)</p>	<p>The site comprises the estuary of the River Broadmeadow. It is of high importance for wintering waterfowl and supports a particularly good diversity of species. It has an internationally important population of <i>Branta bernicla hrota</i> (4.8% of national total), and nationally important populations of a further 12 species. Of particular note are the populations of <i>Tadorna tadorna</i> (3.0% of national total), <i>Anas acuta</i> (2.9% of national total), <i>Mergus serrator</i> (2.8% of national total), <i>Pluvialis squatarola</i> (2.7% of national total) and <i>Calidris canutus</i> (3.7% of national total). The site is one of the few in eastern Ireland where substantial numbers of <i>Bucephala clangula</i> occur (NPWS, 2020b).</p>	<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]          Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]          Shelduck (<i>Tadorna tadorna</i>) [A048]          Pintail (<i>Anas acuta</i>) [A054]          Goldeneye (<i>Bucephala clangula</i>) [A067]          Red-breasted Merganser (<i>Mergus serrator</i>) [A069]          Oystercatcher (<i>Haematopus ostralegus</i>) [A130]          Golden Plover (<i>Pluvialis apricaria</i>) [A140]          Grey Plover (<i>Pluvialis squatarola</i>) [A141]          Knot (<i>Calidris canutus</i>) [A143]          Dunlin (<i>Calidris alpina</i>) [A149]          Black-tailed Godwit (<i>Limosa limosa</i>) [A156]          Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]          Redshank (<i>Tringa totanus</i>) [A162]          Wetland and Waterbirds [A999]          (NPWS, 2013d)</p>	<p>Urbanised areas, human habitation: High impact (outside)</p> <p>Walking, horse-riding and non-motorised vehicles: Medium impact (inside)#</p> <p>Fertilisation: Medium impact (outside)</p> <p>(NPWS, 2020b)</p>
<p>Malahide Estuary SAC (000205)</p>	<p>The site is situated in north Co. Dublin, between the towns of Malahide and Swords. It comprises of the River Broadmeadow estuary. The site has an important example of intertidal sand and mud flats. Salt marshes are well represented, particularly Atlantic salt meadows and Salicornia flats. It is of high importance for wintering waterfowl, with an internationally important population of Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) and nationally important populations of a further 14 species, including Golden Plover (<i>Pluvialis apricaria</i>). It also supports a regionally important population of Bar-tailed Godwit (<i>Limosa lapponica</i>) (NPWS, 2020c).</p>	<p>Mudflats and sandflats not covered by seawater at low tide [1140]          Salicornia and other annuals colonising mud and sand [1310]          Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]          Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]          Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]          Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2130]          (NPWS, 2013e)</p>	<p>Fertilisation: Medium impact (outside)</p> <p>Urbanised areas, human habitation: High impact (outside)</p> <p>Roads, motorways: Medium impact (outside)</p> <p>Walking, horse-riding and non-motorised vehicles: Medium impact (inside)# (NPWS, 2020c)</p>
<p>Howth Head SAC (000202)</p>	<p>The flora is very diverse with several Red data book species and species of very restricted Irish distribution. The dry heath and sea cliff vegetation is extensive and well developed. A wide variety of seabirds nest on the marine cliffs (Source: NPWS,</p>	<p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]          European dry heaths [4030]</p>	<p>Urbanised areas, human habitation: Medium impact (inside and outside)</p>

	2018b).	(Source: NPWS, 2016)	Walking, horse riding and non-motorised vehicles#: High impact (inside)  (Source: NPWS, 2018b)
Rockabill to Dalkey Island SAC (003000)	The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. The area represents a key habitat for the Annex II species - Harbour Porpoise <i>Phocoena phocoena</i> , within the Irish Sea. The Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms (Source: NPWS, 2017d).	Reefs [1170] Harbour Porpoise ( <i>Phocoena phocoena</i> ) [1351]  (Source: NPWS, 2013a)	Discharges High (outside)  (Source: NPWS, 2018c)
Howth Head Coast SPA (004113)	Howth Head has important colonies of breeding seabirds, with nationally important populations of <i>Rissa tridactyla</i> , <i>Alca torda</i> and <i>Cephus grylle</i> , and a regionally important population of <i>Uria aalge</i> . The cliffs also support a breeding pair of <i>Falco peregrinus</i> , a species listed on Annex I of the E.U. Birds Directive (Source: NPWS, 2020d).	Kittiwake ( <i>Rissa tridactyla</i> ) [A188]  (Source: NPWS, 2021b)	Walking, horse riding and non-motorised vehicles # High (inside)  Source: NPWS, 2020d)

\* = priority Annex I habitat

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



## 5 Potential Cumulative Impacts

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 impacts must also be considered at this stage.

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

- Fingal County Council Development Plan 2017-2023
- River Basin Management Plan for Ireland 2018-2021
- Planning Applications

### 5.1 Plans

#### 5.1.1 Dublin City Development Plan 2016-2022

Dublin City Development Plan 2016-2022 sets out aims policies and objectives for the proper planning and sustainable development in the city. The Plan seeks to develop and improve, in a sustainable manner, the social, economic, cultural and environmental assets of the city (Dublin City Council, 2016).

All Natura 2000 sites within the considered zone of influence of the Plan, must be assessed for potential to be impacted by the Plan and for there to potentially be in-combination impacts as a result of the Plan. The City Development Plan is designed to be taken in conjunction with other similar plans and programmes, to have the overall effect of strengthening the management of and enhancing the protection and conservation of Natura 2000 sites. Specific statements, policies and objectives are formulated within the Plan to allow the Council to take appropriate steps to avoid the deterioration of Natura 2000 sites.

Prior to any works commencing on a project that may impact the Natura 2000 network, the project shall be subject to a full Natura Impact Assessment in accordance with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC). This requirement is made explicit in the Plan.

A Natura Impact Report (NIR) was carried out on the plan (Dublin City Council, 2016b). That report determined that, assuming the successful implementation of the mitigatory objectives contained within the plan, there will be no adverse effects on the integrity of European sites arising from the development plan in isolation or in combination with other plans and projects.

#### 5.1.2 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, 2018). 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 Clonsaugh, 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, the works for increased capacity of 400,000 PE are completed and in operation (flows for treatment were accepted in November 2021). Further works for capacity of 2.1 million PE in the second half of 2023 are under way and the ultimate capacity of 2.4 million PE is expected to be in operation by 2025 (Irish Water, 2021).

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, 2018).

#### 5.1.3 River Basin Management Plan for Ireland 2018-2021

The 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 RBMP 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.

The River Basin Management Plan for Ireland 2018-2021 is not anticipated to contribute to cumulative or in-combination effects.

Ireland's third River Basin Management Plan 2022-2027 is due to be published in 2022; the draft Management Plan was published in September 2021 for public consultation. 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 catchment, including status and risk categories, significant threats and pressures, details on protected areas and a comparison cycle 2 and cycle 3. The draft Catchment Report for Liffey and Dublin Bay Catchment identifies an overall improvement of 5 waterbodies across the catchment since the cycle 2 assessment (Catchment Science & Management Unit, 2021). The significant pressures of River Tolka are urban runoff and urban wastewater where the impacts are a combination of nutrient and organic pollution and Ringsend agglomeration. The transitional and coastal waterbodies meet the requirements for the habitats and species of the SACs, including the Dublin Bays SACs. Specific water supporting conditions have not been identified for the dependent bird species in the SPAs and so waterbodies associated with SPAs are not included in the assessment, though for Dublin Bay they overlap with the SACs.

## 5.2 Other Projects

The National Planning Application Database (Myplan.ie, 2021) was searched for other projects in the locality of the proposed site which have been granted planning permission and are not retention applications, home extensions and/or internal alterations. Only planning applications granted permission during the past 3 years and which could act in-combination with the proposed development were included in this search.

No projects which could act in-combination with the proposed development were identified.

## 5.3 Summary

The Council Development Plan, Greater Dublin Drainage Strategy and RBMP 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 site identified in Section 4 above.

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

The Natura 2000 sites to be assessed are:

- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)
- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- Baldoyle Bay SAC (000199)
- Baldoyle Bay SPA (004016)
- Malahide Estuary SPA (004025)
- Malahide Estuary SAC (000205)
- Howth Head SAC (000202)
- Rockabill to Dalkey Island SAC (003000)
- Howth Head Coast SPA (004113)

### 6.2 Assessment criteria

Potential adverse impacts that could cause a likely significant effect on the qualifying interests of the Natura 2000 sites, or the sites as a whole, during the construction and operational phases of the project, are considered using three main pathways; surface water, groundwater and land and air pathways. Surface water pathways can result in impacts where material entering the surface water drainage are carried in this water to sites that are connected downstream and can therefore impact surface water bodies themselves, and surface water dependent species and habitat that rely on them. Groundwater pathways can transmit impacts where there is contamination of water entering the groundwater body which is then discharged (sometimes over periods of several decades) and impacts groundwater dependent habitats and species that rely on them. Land pathways are related to physical disturbance of habitat or species and generally only occur over short physical distance. Air pathways relate to the transport of material, generally dust and atmospheric pollution, via air movements that are subsequently deposited on habitats and species in or connected to the Natura 2000 sites.

The proposed project is not anticipated to impact on the qualifying interests of any of the identified SACs or SPAs. The rationale for excluding impacts via the main pathways is given in more detail in the following sections.

#### 6.2.1 Surface water pathways

Surface water from the site will reach Dublin Bay via storm water and foul water routes, thus potentially impacting on the Natura 2000 sites within the bay: South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Bull Island SPA, North Dublin Bay SAC, Rockabill to Dalkey Island SAC and Howth Head Coast SPA.

While Malahide Estuary SAC, Malahide Estuary SPA, Baldoyle Bay SAC and Baldoyle Bay SPA are coastal Natura 2000 sites with surface water dependent QIs, they are not within a surface water pathway of the proposed site. They are located further north along the coast, north of Howth Head, and any water from Ringsend WWTP outfall will not reach these sites. Howth Head SAC is designated for terrestrial habitats, Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030], which will not be impacted via surface water pathway.



**During construction**, any runoff from the site will be collected in attenuation systems which will be located along the east and south of the boundary before passing through a petrol interceptor and entering the existing surface water pipes at Swords Road. This will prevent any excess water load during heavy rainfall events.

The construction phase may produce pollutants (e.g. hydrocarbon spillages) and silt runoff from the site. Given the distance to the nearest watercourse (River Tolka 1.35km south), any potential runoff would enter the existing surface water sewer system. During heavy rainfall, untreated water may enter the surface water system and reach Dublin Bay. However, any suspended solids will settle naturally within the drainage pipes and potential pollutants will be diluted within the sewer systems and surface water bodies before reaching any of the Natura 2000 sites in Dublin Bay.

Therefore, given the temporary nature of the construction phase of the project, the limited amount of silt/pollutants that could potentially enter the surface water, as well as the distance to any Natura 2000 site, a significant impact on any of the QIs is not expected for South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Bull Island SPA, North Dublin Bay SAC, Rockabill to Dalkey Island SAC or Howth Head Coast SPA.

**During operation**, the foul water will discharge to DCC foul sewer system and be treated at Ringsend WWTP. In June 2018 Irish Water applied for (and subsequently received) planning permission for upgrade works to the Ringsend WWTP facility. These are currently on-going and will increase the capacity of the facility from 1.6 million PE to 2.4 million PE. This plant upgrade will result in an overall reduction in the final effluent discharge of several parameters from the facility including Biological Oxygen Demand (BOD), suspended solids, ammonia, Dissolved Inorganic Nitrogen (DIN) and Molybdate Reactive Phosphate (MRP). An Environmental Impact Assessment Report (EIAR) was submitted by Irish Water as part of this application. The EIAR contains sections relating to Marine Biodiversity and Terrestrial Biodiversity, and each contains a section on the 'do-nothing scenario'. These review the effects of the WWTP on biodiversity in Dublin Bay in the absence of the upgrade works and so are relevant to this report.

The EIAR report acknowledges that under the do-nothing scenario "the areas in the Tolka Estuary and North Bull Island channel will continue to be affected by the cumulative nutrient loads from the river Liffey and Tolka and the effluent from the Ringsend WWTP", which could result in a decline in biodiversity and the deterioration of the biological status of Dublin Bay (Irish Water, 2018b). Nevertheless, these negative impacts of nutrient over-enrichment are considered "unlikely" (Irish Water, 2018b). This is because historical data suggests that pollution in Dublin Bay has had little or no effect on the composition and richness of the benthic macroinvertebrate fauna. The EIAR notes that "although a localised decline could occur, it is not envisaged to be to a scale that could pose a threat to the shellfish, fish, bird or marine mammal populations that occur in the area." Furthermore, the EIAR notes that significant impacts on waterbird populations foraging on invertebrates in Dublin Bay due to nutrient over-enrichment are "unlikely" to occur (Irish Water, 2018b). What is important in the context of this AA screening report is that the do-nothing scenario predicts that nutrient and suspended solid loads from the WWTP will "continue at the same levels and the impact of these loadings should maintain the same level of effects on marine biodiversity" and that "if the status quo is maintained there will be little or no change in the majority of the intertidal faunal assemblages found in Dublin Bay which would likely continue to be relatively diverse and rich across the bay". There is no evidence that operations from the WWTP are affecting the conservation objectives of the European sites in Dublin Bay.

Therefore, it can be concluded that effects on marine biodiversity and the Natura 2000 sites within Dublin Bay from the current operation of Ringsend WWTP are unlikely. Importantly, this conclusion is not dependent upon any future works to be undertaken at Ringsend. Thus, in the absence of any upgrading works, significant effects to Natura 2000 sites are not likely to arise.

Furthermore, the anticipated average flow from the proposed development is calculated to 2.32l/s from the residential blocks and creche and 0.012l/s from businesses, which has been approved by Irish Water in a feasibility letter (JOR, 2022).

In summary it is assessed that surface water impacts during construction and operation are not anticipated to have a significant impact on any of the Natura 2000 sites. Table 6-1 provides a

summary of the screening rationale for the surface water pathway. Surface water pathways to Natura 2000 sites are seen in Figure 6-1.

Table 6-1: Surface water pathway screening summary for Natura 2000 sites

Natura 2000 sites	Screening outcome for Surface Water Pathway	Rationale
<ul style="list-style-type: none"> <li>• South Dublin Bay and River Tolka Estuary SPA (004024)</li> <li>• South Dublin Bay SAC (000210)</li> <li>• North Bull Island SPA (004006)</li> <li>• North Dublin Bay SAC (000206)</li> <li>• Rockabill to Dalkey Island SAC (003000)</li> <li>• Howth Head Coast SPA (004113)</li> </ul>	No significant effect (Screened out)	Distance / high level of dilution by larger freshwater system and transitional / coastal waters
<p>No surface water pathway:</p> <ul style="list-style-type: none"> <li>• Malahide Estuary SAC</li> <li>• Malahide Estuary SPA</li> <li>• Baldoyle Bay SAC</li> <li>• Baldoyle Bay SPA</li> <li>• Howth Head SAC</li> </ul>		Appropriate operational surface and foul water drainage systems

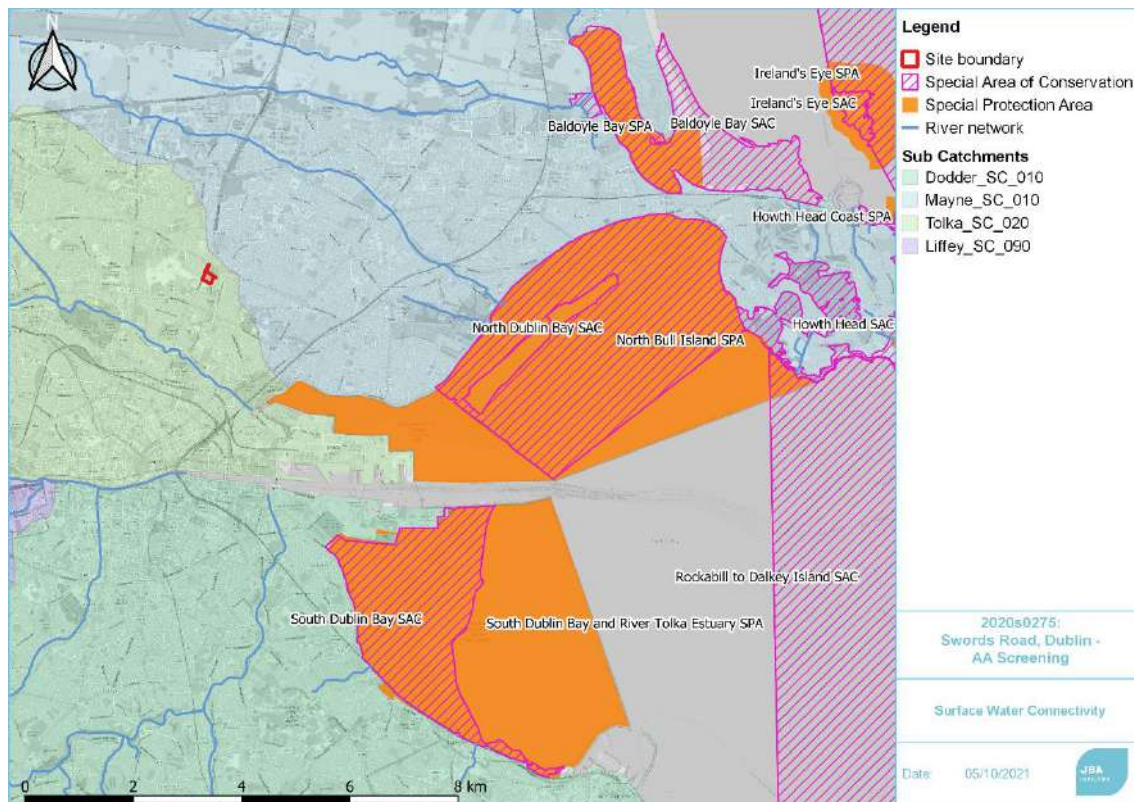


Figure 6-1: Site location and Natura 2000 sites, with surface water sub-catchments (EPA, 2021; NPWS, 2021).



### 6.2.2 Groundwater pathways

The proposed site is located within Dublin groundwater body (IE\_EA\_G\_008) where the bedrock is limestone and the sub-soil is made up of till (EPA, 2022). The sub-soil has low permeability (GSI, 2021). The aquifer vulnerability of the site is low (Figure 6-2) and the Bedrock is Moderately Productive only in local zones. North Dublin Bay SAC and South Dublin Bay SAC have qualifying interests (QI) which are groundwater dependent, namely Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] and Mediterranean salt meadows (*Juncetalia maritim*) [1410]. These habitats are also associated with the QIs of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA, as these are important habitats for many of the birds. However, given that the proposed site is located in an urban setting at a distance of 2.4km from the closest Natura 2000 site (South Dublin Bay and River Tolka Estuary SPA) where the sub-soil permeability of the site and the surrounding is low and the aquifer vulnerability is low, negative impacts on the Natura 2000 sites are not anticipated.

During the operation phase, potential pollutants will enter the existing sewer system and will not be able to infiltrate the groundwater, therefore, adverse impacts to any Natura 2000 site are not anticipated during the operational phase.

Adverse impacts on any Natura 2000 sites are not expected via a groundwater pathway. Table 6-2 gives a summary of the screening rationale for the groundwater pathway.

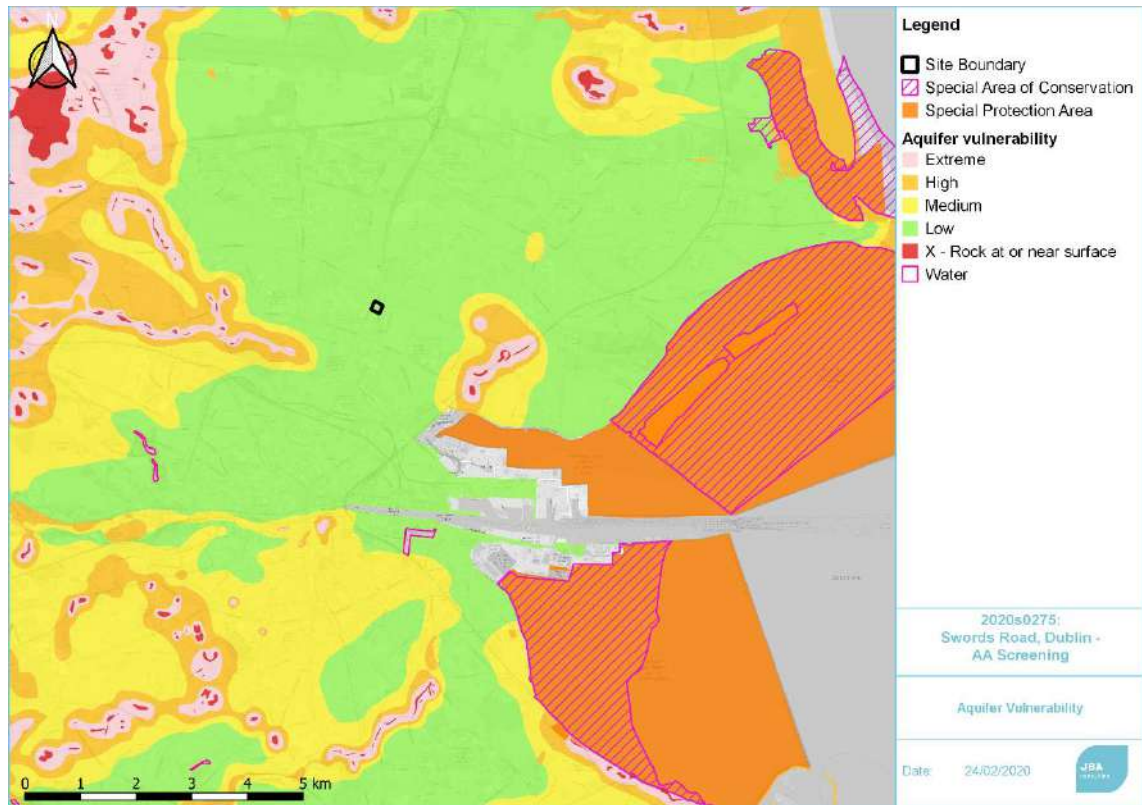


Figure 6-2: Aquifer vulnerability (Source: GSI, 2020)



Table 6-2: Ground water pathway screening summary for Natura 2000 sites

Natura 2000 sites	Screening outcome for Groundwater Pathway	Rationale
<ul style="list-style-type: none"> <li>• South Dublin Bay and River Tolka Estuary SPA (004024)</li> <li>• South Dublin Bay SAC (000210)</li> <li>• North Bull Island SPA (004006)</li> <li>• North Dublin Bay SAC (000206)</li> <li>• Malahide Estuary SAC</li> <li>• Malahide Estuary SPA</li> <li>• Baldoyle Bay SAC</li> <li>• Baldoyle Bay SPA</li> <li>• Howth Head SAC</li> <li>• Rockabill to Dalkey Island SAC (003000)</li> <li>• Howth Head Coast SPA (004113)</li> </ul>	No significant effect (Screened out)	<p>Low sub-soil permeability and low aquifer vulnerability</p> <p>Appropriate operational surface and foul water drainage systems.</p>

### 6.2.3 Land and Air pathways

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

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

Direct physical impacts and indirect impacts, such as visual and noise impacts, do not have the potential to physically disturb habitats as well as the floral and faunal species within the Natura 2000 sites due to the distance from the site to the Natura 2000 sites within the ZoI.

The proposed site is not considered to provide suitable ex-situ foraging habitat for wintering birds from the Natura 2000 sites. There are QI birds of the coastal SPAs that use terrestrial habitats as well, such as Light-bellied Brent Goose *Branta bernicla hrota* Black-tailed Godwit *Limosa limosa*, Bar-tailed Godwit *Limosa lapponica* and Black-headed Gull *Chroicocephalus ridibundus*. Light-bellied Brent Goose tend to feed on amenity grasslands in for example Dublin city parks. Brent Goose were not recorded within the site during the site visits or bird surveys and the grassland on site was deemed to not be of suitable quality for Brent Goose. The grassland on site is not regularly maintained, thus overgrown and with last year sward occurring. Due to lack of maintenance scrub and trees are emerging on the site. This type of habitat is not of ideal quality for the Light-bellied Brent Goose as they prefer well maintained fields with low cut grass sward. Black-tailed Godwit and Bar-tailed Godwit generally stay closer to the estuaries. Due to unsuitable habitat on site, the foraging and roosting behaviour of these species, impacts via land pathways in terms of ex situ supporting habitats are not anticipated to have a significant impact on any of the Natura 2000 sites.

#### Bird flight lines

Light-bellied Brent Goose are known to feed on sites in the vicinity of the proposed development. Several of these sites are of high and major importance for Light-bellied Brent Goose (Scott Cawley, 2017), including Whitehall/Pairc Imeartha located west of N1 ca 150m south west of the subject site and Glasnevin/DCU Sports Grounds ca 1.5km west of the subject site.

The Light-bellied Brent Goose is a QI of North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle SPA and Malahide Estuary SPA. However, it is the population at North Bull Island that tend to use inland grassland sites in north Dublin.

The conservation objectives for the Light-bellied Brent Goose are "to maintain the favourable conservation condition" defined by population trend and distribution (NPWS, 2013c, 2013d, 2015c,

2015b). The condition of the Light-bellied Brent Goose is considered 'Favourable' and long-term trend is increasing (NPWS, 2014a, 2013f, 2012b).

The proposed development has been identified to be within the flight lines of Brent Goose to/from roost/feeding sites and has the potential to impact on their flight lines due to the introduction of proposed 6-8 story buildings within the site.

However, survey results indicate that the Brent Goose did not fly over the site on a regular basis, the majority of the observations recorded the birds flying further south of the site and the number of birds flying over the site was low (less than 3% of the North Bull Island SPA population).

The estimated flight height over the site varied between 15-25m which is within the height of the proposed buildings (20.37-26.75m). The buildings may impact on Brent Goose trying to land on grasslands close to the proposed site, which is mainly lands of Clonturk Community College, as they fly lower when they prepare to land on a site. However, given the limited use of the fields at Clonturk Community College (Brent Goose were only observed to forage on one occasion) and the low buildings to south of the site and open fields (GAA grounds) and low buildings to the north, the proposed development is not anticipated to have a significant impact on the QI Light-Bellied Brent Goose of any of the Natura 2000 sites.

### Air Pollution

Dust release and vehicle emissions can travel considerable distances and could potentially affect the QIs for which the following Natura 2000 sites are designated: South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Bull Island SPA, North Dublin Bay SAC, Malahide Estuary SAC, Malahide Estuary SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Howth Head SAC, Rockabill to Dalkey Island SAC and Howth Head Coast SPA.

The distance and direction of travel is dependent upon wind speed and direction. The prevailing wind in the area is west south-west (based on measurements carried out between 1942-2014 at Dublin Airport (Met Éireann, 2020)). As the Natura 2000 sites are located to the east, north-east and south east of the proposed site, this means that on average winds will blow in the direction of most of the SACs and SPAs, only South Dublin Bay and River Tolka Estuary SPA and South Dublin Bay SAC are outside of the general wind direction. The closest Natura 2000 sites within the general wind direction are 4.6km away (North Dublin Bay SAC and North Bull Island SPA). The urban setting of the proposed development provides barriers towards the SPAs/SACs, 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 impact the QIs of the SACs or SPAs due to the relatively small size and temporary nature of proposed works and distance between proposed site and Natura 2000 sites. Furthermore, the QIs of these Natura 2000 sites are not sensitive to dust pollutions. Table 6-3 summarises the screening rationale for Land and Air pathways.

Table 6-3: Land and air pathway screening summary for Natura 2000 sites

Natura 2000 sites	Screening outcome for Land and Air Pathway	Rationale
<ul style="list-style-type: none"> <li>• South Dublin Bay and River Tolka Estuary SPA (004024)</li> <li>• South Dublin Bay SAC (000210)</li> <li>• North Bull Island SPA (004006)</li> <li>• North Dublin Bay SAC (000206)</li> <li>• Malahide Estuary SAC</li> <li>• Malahide Estuary SPA</li> <li>• Baldoyle Bay SAC</li> <li>• Baldoyle Bay SPA</li> <li>• Howth Head SAC</li> <li>• Rockabill to Dalkey Island SAC (003000)</li> <li>• Howth Head Coast SPA (004113)</li> </ul>	No significant effect (Screened out)	<p>No physical, visual or noise disturbance due to the distances between the site and the Natura 2000 sites</p> <p>In terms of flight line, there is a low number of Light-bellied Brent Goose flying over the site, limited use of fields nearby for foraging and low height on surrounding buildings.</p> <p>Presence of barriers preventing dispersal of dust particles</p> <p>The site offers no suitable supporting habitat for any QIs of the Natura 2000 sites</p> <p>Respective QIs are not sensitive to dust-based pollution</p>

#### 6.2.4 Cumulative Impact

In assessing plans and projects outlined in Section 5, the proposed development is not anticipated to act in-combination with these plans and projects on any of the Natura 2000 sites.

The listed county development and catchment plans have been subject to Stage 2 Appropriate Assessment. The conclusion from these assessments is that the projects will have a negligible impact on the QIs/Species of Conservation Interests (SCI) of any Natura 2000 site with the implementation of proposed mitigation measures. As the proposed development is unlikely to affect the QIs/SCIs or conservation objectives of any European site, there is no potential for other plans or projects to act in combination with it to result in likely significant effects on European sites.

### 6.3 Summary

Due to the location of the proposed site, the small scale nature of the works, low number of QI birds flying over the site and its distance to the Natura 2000 sites within the ZoI, the proposed project is not anticipated to have a significant impact via surface water, groundwater and land and air pathways to any Natura 2000 site.

#### 6.3.1 Description of likely direct, indirect or secondary impacts 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 will consist of the construction of 7 no. blocks in heights up to 8 storeys (over single level basement) comprising 472 no. apartment units, a creche, café unit, and internal residential amenity space. The proposal also includes car, cycle, and motorcycle parking, public and communal open spaces, landscaping, bin stores, plant areas, substations, switch rooms, and all associated site development works and services provision. Access is provided from the development from Swords Road with associated upgrades to the existing public road and footpaths.
Land-take	There will be no direct land take from any of Natura 2000 sites.
Distance from	South Dublin Bay and River
	004024
	2.4 km



Natura 2000 site or key features of the site	Tolka Estuary SPA		
	North Bull Island SPA	004006	4.6 km
	North Dublin Bay SAC	000206	4.6 km
	South Dublin Bay SAC	000210	5.2 km
	Baldoyle Bay SAC	000199	7.3 km
	Baldoyle Bay SPA	004016	7.9 km
	Malahide Estuary SPA	004025	9.3 km
	Malahide Estuary SAC	000205	9.3 km
	Howth Head SAC	000202	9.7 km
	Rockabill to Dalkey Island SAC	003000	10.4 km
	Howth Head Coast SPA	004113	12.4 km
Resource requirements (water abstraction etc.)	All blocks apart from Block F and G will have basements and it is uncertain if these developments will require water abstraction. Any potential dewatering process will be temporary during the basement construction works. However, since the site has a low aquifer vulnerability and the bedrock is Moderately Productive only in local zones, potential water abstraction is not anticipated to have a significant impact on the Natura 2000 sites.		
Emissions (disposal to land, water or air)	<p>Construction Phase:</p> <p>Water</p> <p>Any surface water discharge will be collected in an attenuation system and passed through a petrol interceptor, thus is not anticipated to have a significant impact on the Natura 2000 sites. Potential pollutants will be utilised at the site, including diesel and engine/hydraulic oils. These could potentially spill or leak into the groundwater, however given the ground conditions, where the aquifer vulnerability is low and sub-soil permeability is low, it is not anticipated to have a significant impact on any QIs of the Natura 2000 sites.</p> <p>Air</p> <p>Excavations at the site will produce loose top and sub soil, and emissions may arise from working machinery. However, this is not anticipated to have a significant impact on habitats or species of any Natura 2000 site.</p> <p>In the absence of any mitigation, the emissions from the project would not result in a negative impact on the Natura 2000 sites.</p> <p>Operation phase:</p> <p>Storm water will be discharged to an attenuation system and passed through a petrol interceptor before entering the storm sewer network. Foul water will connect to the NDDS sewer and Ringsend WWTP. There is no evidence that the Ringsend WWTP is having any impact on the conservation objectives of the Natura 2000 sites within Dublin Bay under its current operation. Further, there are planned upgrade works to improve capacity at the WWTP, as discussed in Section 6.2.1 above. Therefore, there will be no permanent impacts on any Natura 2000 site.</p>		
Excavation requirements	<p>Required depth of excavation for the part of the development that has a basement carpark will be 4.2-5.4m in depth, apart from the western boundary where it will be 5.4-6.1m in depth.</p> <p>The following excavation depths are for the buildings that does not</p>		

	<p>have a basement carpark: Block F – 0.9-1.2m Block G – 1.6-2.75m</p>
Transportation requirements	<p>Temporary Impacts: 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>Permanent Impacts: Traffic to and from the proposed project will be on pre-existing roads. 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.	<p>The duration of the construction phase expected to take 36 months to complete.</p> <p>The operation is estimated to be permanent.</p>
Other	None

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

Potential Impact	Comments
Reduction of habitat area	There will be no temporary or permanent reduction in habitat area for any of the Natura 2000 sites.
Disturbance to key species	<p><i>Temporary Impacts:</i> The construction works will temporarily increase the noise level and disturbance locally. However, no significant impacts are anticipated to key species given scale and temporary nature of the construction phase and distance from the Natura 2000 sites.</p> <p><i>Permanent Impacts:</i> The height of the buildings may interrupt the flight line of Light-bellied Brent Goose. However, this is not anticipated to have a significant effect on the QI given the low number of birds flying over the site, low usage of nearby sites for foraging and the presence of low buildings surrounding the site.</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

### 6.3.3 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	Indicators
Loss (Estimated percentage of lost area of habitat)	No Natura 2000 sites will experience a direct loss in habitat area.
Fragmentation	There will be no fragmentation of habitat and/or species.
Disruption & disturbance	There is potential for disruption of flight lines of Light-bellied Brent Goose due to the proposed development. However, this is not anticipated to have a significant effect on the QI given the low number of birds flying over the site, low usage of nearby sites for foraging and the presence of low buildings surrounding the site.
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.

**6.3.4 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is unknown**

Based upon best scientific knowledge available, no significant impacts are expected from the elements mentioned above and there are no elements where the scale or magnitude of impacts is unknown.

**6.4 Concluding Statement**

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded that the possibility of any significant impacts on any European Sites, 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.



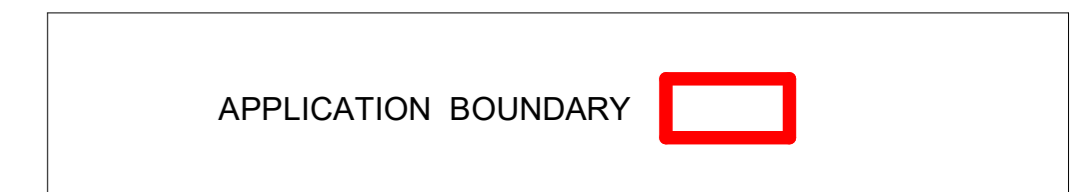
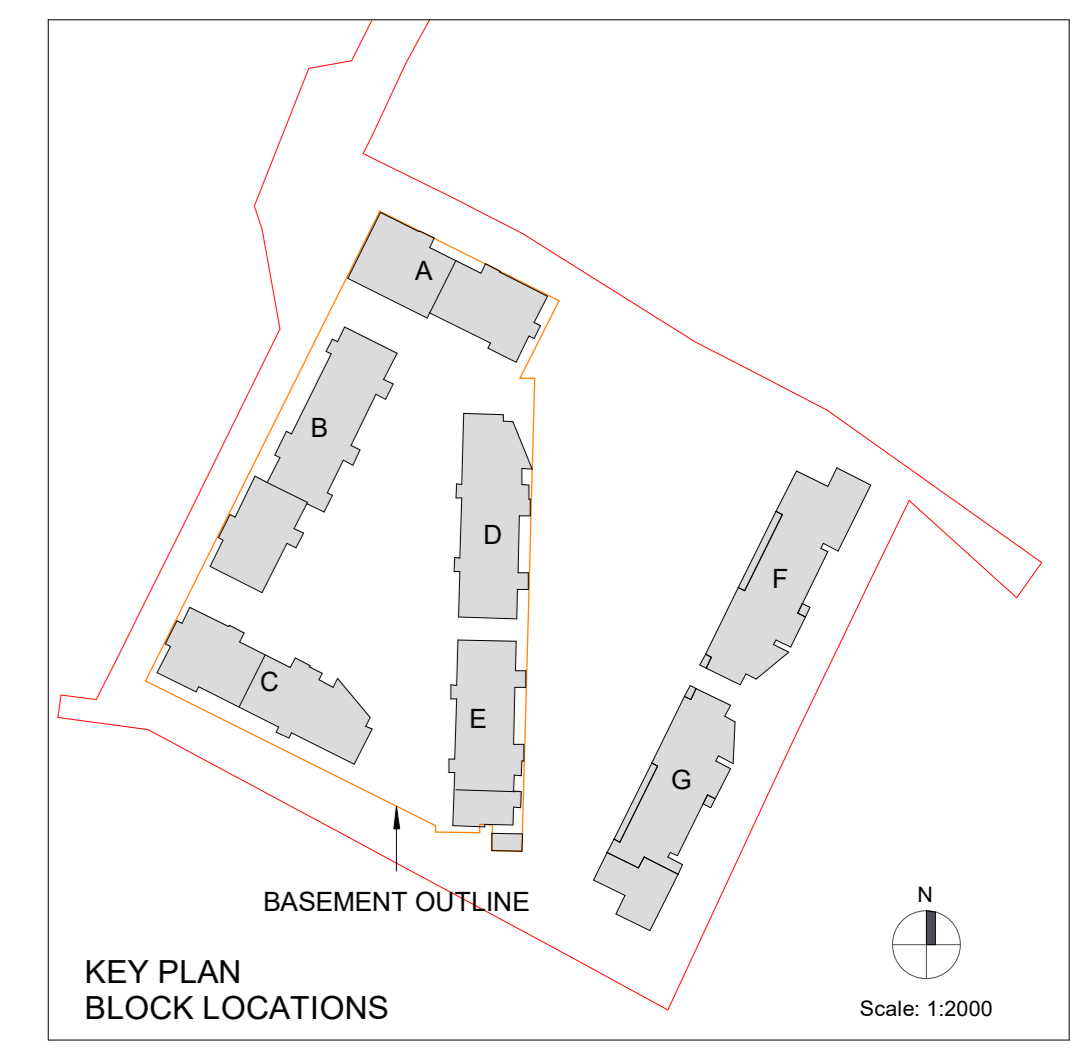
## Appendices

### A Proposed Site Plan



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 FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. DO NOT SCALE.  
 ALL CONTRACTORS MUST VISIT THE SITE AND BE RESPONSIBLE FOR CHECKING ALL SETTING OUT DIMENSIONS AND NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY MANUFACTURE OR CONSTRUCTION WORK.

**DESIGN INTENT DRAWING**



**TOTAL PROPOSED CAR PARKING SPACES**

**BASEMENT:**

- no. 249 RESIDENTS PARKING (5 of them are for electric vehicles)
- no. 5 CRECHE STAFF
- no. 18 ACCESSIBLE PARKING
- no. 5 CAR SHARE / CAR CLUB

**SURFACE LEVEL:**

- no. 37 RESIDENTS PARKING
- no. 4 ACCESSIBLE PARKING
- no. 19 VISITORS PARKING (5 of them are drop-off parking)

**A TOTAL OF 317 CAR PARKING SPACES PROVIDED**  
**313 OF WHICH FOR RESIDENTS**

- no. 14 MOTORCYCLE PARKING
- no. 732 SECURE CYCLE SPACES
- no. 238 VISITOR CYCLE SPACES
- no. 14 CARGO BIKE SPACES

**A TOTAL OF 962 CYCLE SPACES PROVIDED**



**1 SITE PLAN**  
1:500

Rev	Date	Description	Issued By
Project Stage			
<b>PLANNING</b>			
Client			
Eastwise Construction Swords Limited			
Project			
Hartfield Place Swords Road, Whitehall, Dublin 9 D09 C7F8			
Drawing Title			
SITE PLAN			
Drawn	Checked	Paper Size	Scale
DP	CM	A0	As Indicated
Date			
Mar. 2022			
Project No.	Drawing No.	Classification	Revision
HARTPL	000502		
File Name			
HARTPL-CWO-SM-00-DR-A-000502			
Status			
S2-Suitable For Information			

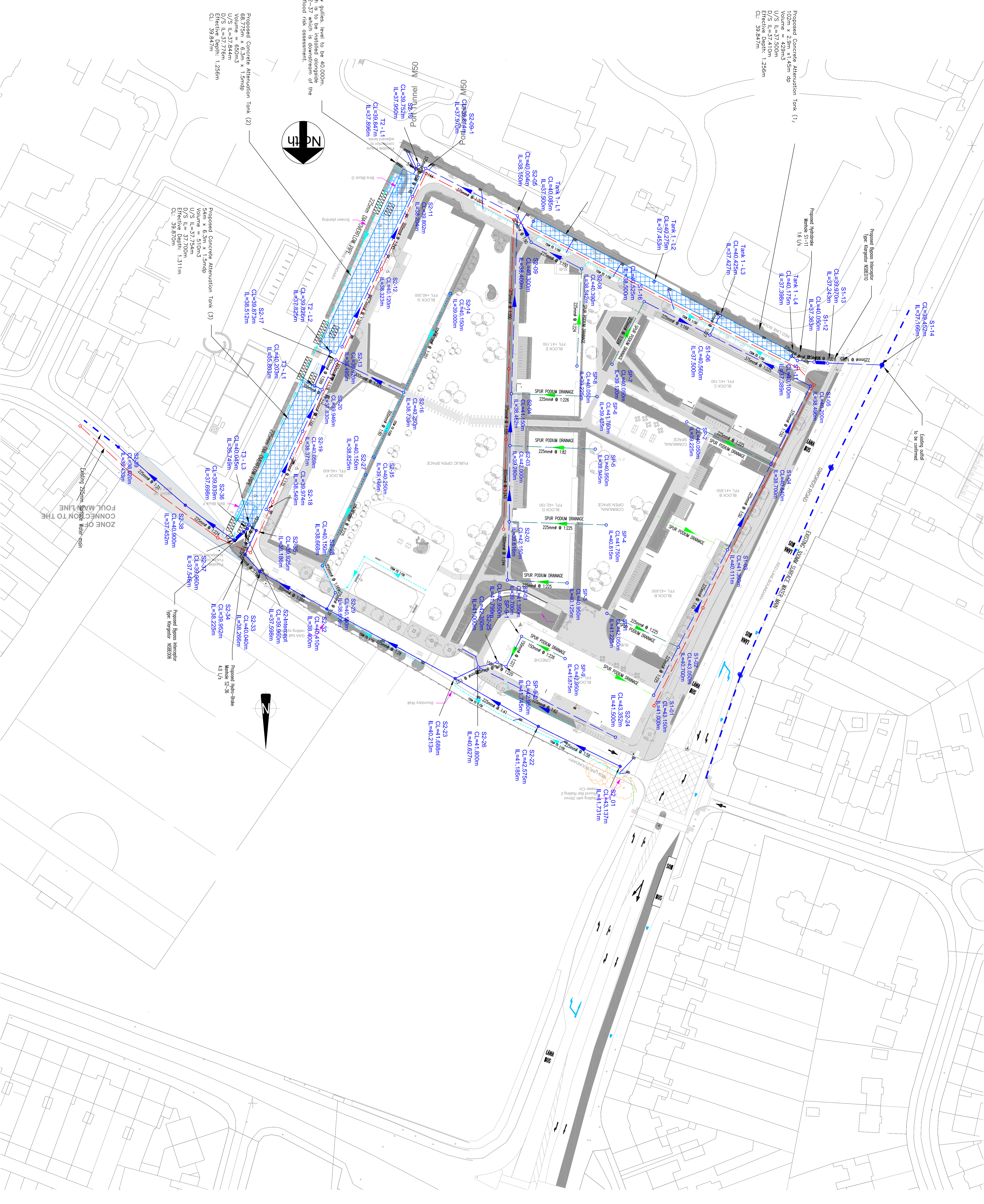


## B Proposed Drainage Layout

### B.1 Surface Water Drainage Layout



- NOTES
1. LAYOUT IS INDICATIVE ONLY. FINAL POSITION
  2. ALL WASTEWATER WORKS TO BE IN ACCORDANCE WITH IRISH WATER WASTEWATER CODE OF PRACTICE
  3. ALL SURFACE WATER WORKS TO BE IN ACCORDANCE WITH GREATER DUBLIN REGIONAL CODE OF PRACTICE
  4. WHERE 12M COVER CANNOT BE ACHIEVED THE PIPE SHALL HAVE A CONCRETE SURROUND AS PER IRISH WATER WASTEWATER CODE OF PRACTICE MINIMUM COVER OF 750MM TO BE KEPT BETWEEN NEW FOUNDATIONS AND EXISTING SURFACE WATERPPOOL MAINS
  5. MINIMUM OF 500mm SEPARATION BETWEEN EXISTING SERVICES AND NEW SERVICES BARRIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS
  6. PROPOSED SUDS FEATURES TO BE IN ACCORDANCE WITH APPROVED PLANNING DCC REG. REF:269/10 & DRAINAGE DESIGN MANUAL 2006
  7. PERMEABLE PAVING TO BE INCORPORATED INTO CARPARKING BAYS AND FOOTPATHS
  8. GREEN ROOFS TO BE USED WHERE APPLICABLE
  9. INTERMEDIATE SUDS SPACES WHERE APPLICABLE
  10. LEVELS OF SUDS DRAINAGE TO BE CONFIRMED PRIOR TO COMMENCEMENT OF WORKS
  11. BACKFILL MATERIAL AROUND UNDERGROUND MAINS TO BE COMPACTED IN LAYERS.
  12. SIMILARLY APPROVED
  - 13.



- NOTES
- Existing Surface Water Main
  - Proposed Surface Water Drainage
  - Proposed Surface Water Manhole
  - Proposed Surface Water Manhole
  - Proposed Stung Surface water Drainage
  - See drawing C003 for details
  - Proposed Bypass Interceptor
  - Proposed Filter Drain (Landscape Design)
  - Proposed Gully & Connection
  - Proposed Concrete Attenuation Tank

REV	DATE	DETAILS
C01	23/02/22	Issued for SHD Application
C02	11/03/21	Issued for SHD Application

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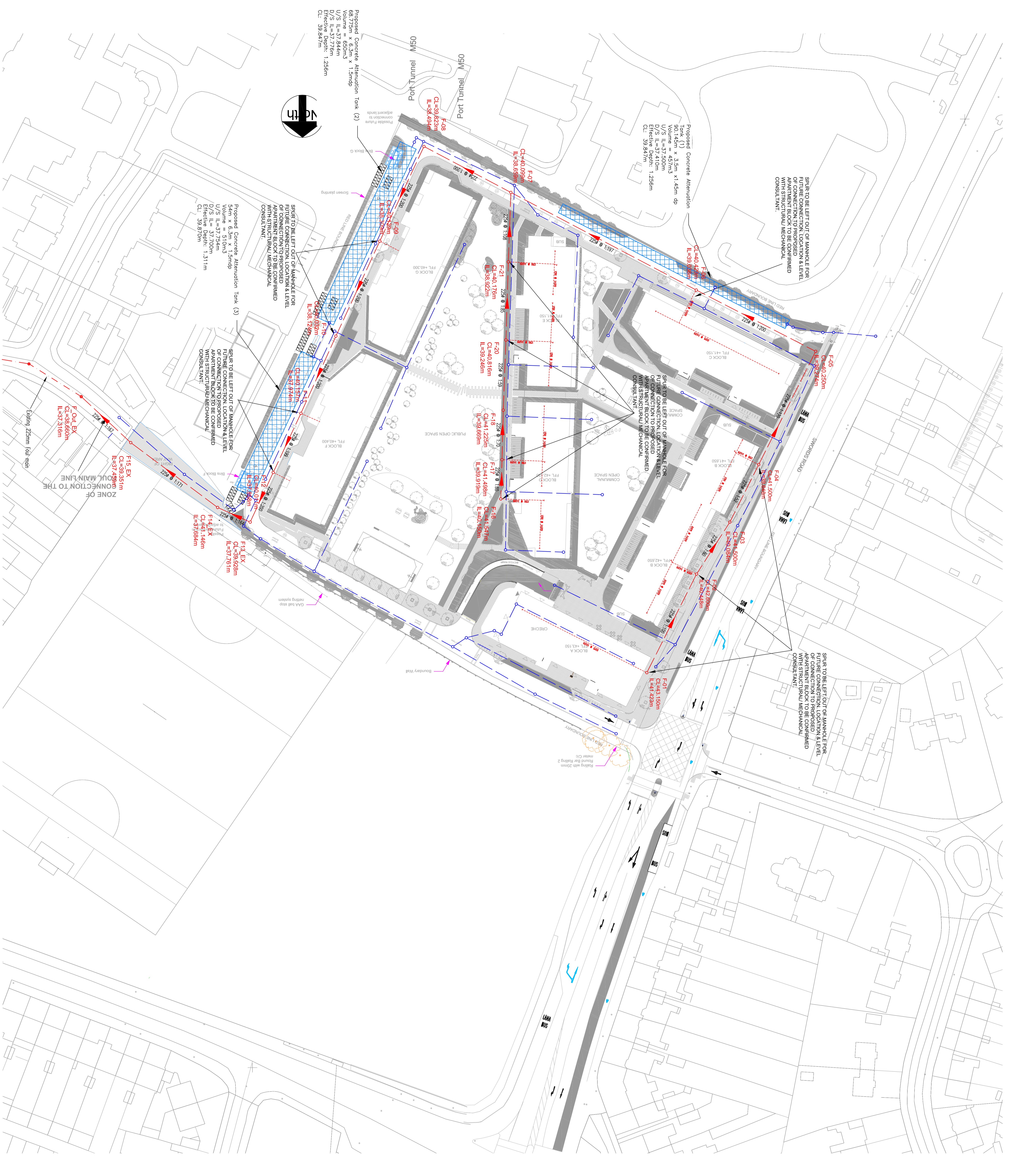
CLIENT	Eastwise Construction Ltd
PROJECT	Hartfield Place SHD
ADDRESS	Surface Water Drainage Layout
SCALE	1:500 @ A3
DATE	02/03/2021
DRAWING NO.	HARTFL-LOR-SM-ZZ-DR-C-0002
ISSUED FOR	PLANNING
REV	C04



## B.2 Foul Water Drainage Layout



- NOTES:
1. THIS PLAN IS NOT THE FINAL POSITION OF SERVICES TO BE CONFIRMED ON SITE.
  2. ALL WASTEWATER WORKS TO BE IN ACCORDANCE WITH IRISH WATER WASTEWATER CODE OF PRACTICE AND IRISH WATERS WASTEWATER INFRASTRUCTURE STANDARD DETAILS.
  3. GREATER DUE DILIGENCE SHALL BE OBSERVED WITH REGARD TO THE WASTEWATER CODE OF PRACTICE FOR DRAINAGE WORKS.
  4. FOLI PIPE MATERIALS TO BE UPVC MAIN PIPE AS PER SECTION 3.13 IN THE IRISH WATER WASTEWATER CODE OF PRACTICE.
  5. WHERE 75mm COVER CANNOT BE ACHIEVED THE PIPE SHALL HAVE A CONCRETE SURROUND AS PER IRISH WATER WASTEWATER CODE OF PRACTICE.
  6. ALL PUMP CHAMBERS AND RISING MAINS TO BE DESIGNED BY A REGISTERED CIVIL ENGINEER.
7. LOCAL FOLI DRAINAGE LAYOUT WHICH WILL CONNECT THE APARTMENT BLOCKS TO THE FOLI LEAN TO BE CONFIRMED BY THE MAIN CONTRACTOR.
  8. LOCAL FOLI DRAINAGE LAYOUT WHICH WILL CONNECT THE ONE INTERNAL BUILDING DRAINAGE IS CONFIRMED.



- NOTES
- - - Existing Foul Main
  - - - Existing Foul Manhole
  - - - Proposed Foul Drainage
  - - - Proposed Foul Manhole
  - - - Proposed Slung Foul Drainage
  - - - Proposed Surface Water Manhole
  - - - Proposed Surface Water Drainage
  - - - Proposed Attenuation tanks

REV	DATE	DETAILS
C05	24/03/22	Issued for SHD Application - Site Layout updated
C04	24/03/22	Issued as part of connections to SHD
C03	11/03/21	Issued for SHD Application

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CLIENT		TITLE	
Eastwise Construction Ltd		Foul Drainage Layout	
PROJECT	SCALE	DATE	DRAWING NO.
Hartfield Place SHD	1:500 (A3)	Oct 2021	HARTFLD-JOR-SM-ZZ-DR-C-001
ADDRESS	CHECKED BY	REV	
57, Hartfield Road, Whitehall, Dublin 9		C05	

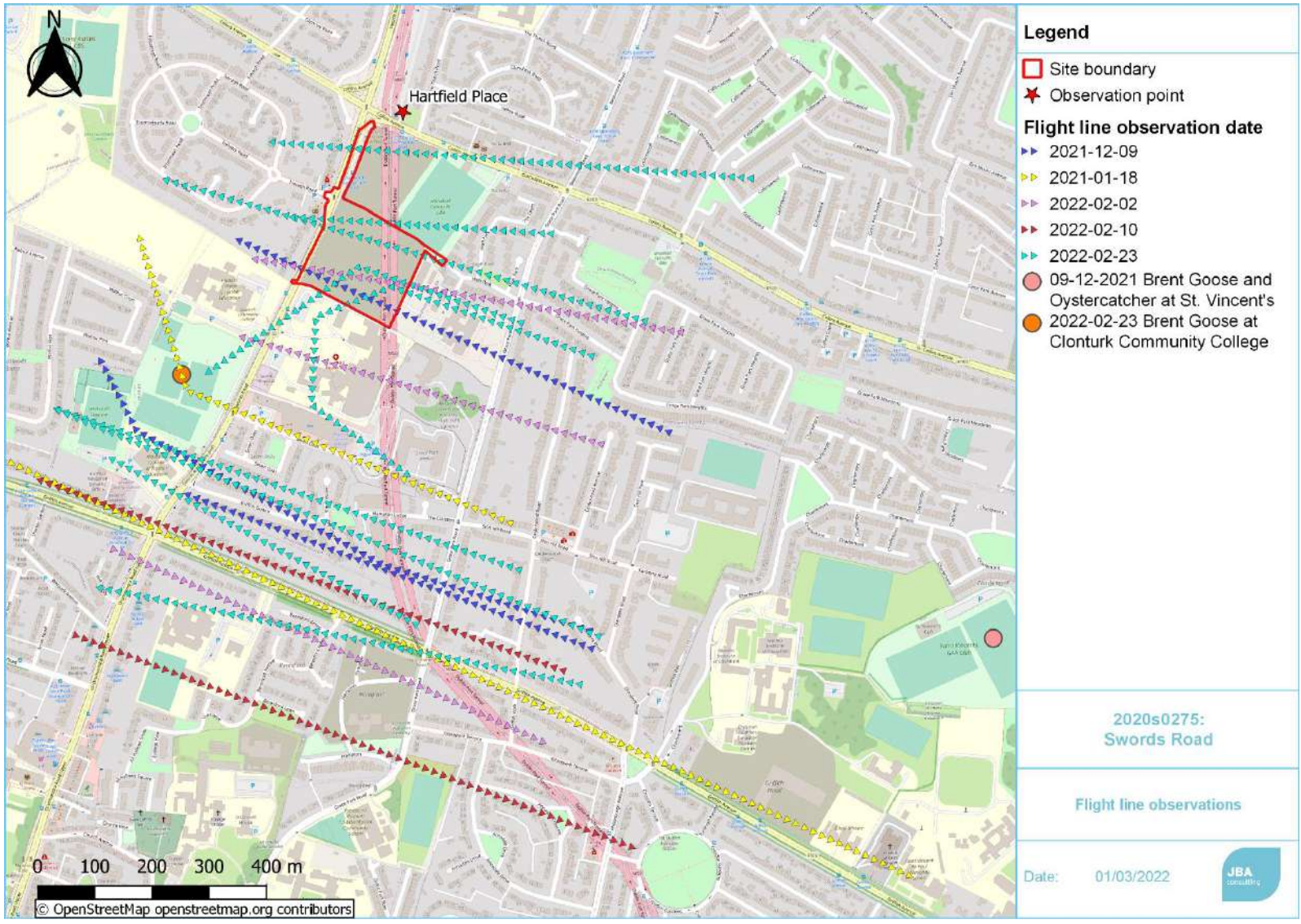
ISSUED FOR PLANNING



## C Results Wintering Bird Flight Line Survey

Species	Date & Time	Count	Estimated height	Flying over proposed development site (yes/no)
Brent Goose	2021/12/09 11:45	11	15m	No
Brent Goose	2021/12/09 11:55	20	15m	Yes
Brent Goose	2021/12/09 11:52	5	35m	No
Brent Goose	2022/01/18 15:05	100	20m	No
Brent Goose	2022/01/18 16:54	149	35m	No
Brent Goose	2022/02/02 09:52	5	35m	No
Brent Goose	2022/02/02 09:58	50	15m	Yes
Brent Goose	2022/02/02 10:01	50	15m	No
Brent Goose	2022/02/10 15:51	80	25m	No
Brent Goose	2022/02/10 17:04	100	20m	No
Brent Goose	2022/02/23 08:42	7	25m	Yes
Brent Goose	2022/02/23 08:44	80	20m	Yes
Brent Goose	2022/02/23 08:59	7	20m	No
Brent Goose	2022/02/23 09:06	20	20m	No
Brent Goose	2022/02/23 09:07	30	20m	Yes
Brent Goose	2022/02/23 09:08	50	20m	Yes
Brent Goose	2022/02/23 09:49	40	25m	No
Brent Goose	2022/02/23 10:18	8	25m	No
Brent Goose	2022/02/23 10:32	23	20-25m	Yes

The map below shows all the recorded observations of Light-Bellied Brent Goose during the flight line surveys undertaken between December 2021 - February 2022.



## References

- Bird Watch Ireland, 2022. The Irish Wetland Bird Survey - summary tables [WWW Document]. URL <https://c0amf055.caspio.com/dp/f4db30005dbe20614b404564be88> (accessed 2.24.22).
- Catchment Science & Management Unit, 2021. 3rd Cycle Draft Liffey and Dublin Bay Catchment Report (HA 09).
- CIEEM, 2018. Guidelines and checklist for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management.
- DoEHLG, 2009. Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government.
- DoHPLG, 2018. River Basin Management Plan for Ireland 2018-2021.
- Dublin City Council, 2016a. Dublin City Development Plan 2016-2022.
- Dublin City Council, 2016b. Dublin City Development Plan 2016-2022 Appropriate Assessment.
- EPA, 2022. EPA Maps [WWW Document]. Next Generation EPA Maps. URL <https://gis.epa.ie/EPAMaps/> (accessed 1.25.22).
- European Commission, 2018. Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC.
- European Commission, 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, 2002. Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.
- Fossitt, 2000. A guide to habitats in Ireland, Heritage Council of Ireland series. Heritage Council/Chomhairle Oidhreachta, Kilkenny.
- Fossitt, J.A., 2000a. A guide to habitats in Ireland, Heritage Council of Ireland series. Heritage Council/Chomhairle Oidhreachta, Kilkenny.
- Fossitt, J.A., 2000b. A guide to habitats in Ireland, Heritage Council of Ireland series. Heritage Council/Chomhairle Oidhreachta, Kilkenny.
- GSI, 2021. Geological Survey Ireland Spatial Resources [WWW Document]. URL <https://dcnr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaa-c3c228> (accessed 1.15.20).
- Irish Water, 2021. Ringsend Wastewater Treatment Plant Upgrade Project [WWW Document]. Irish Water. URL <https://www.water.ie/projects-plans/ringsend/> (accessed 12.10.21).
- Irish Water, 2018a. Greater Dublin Drainage Strategy - Overview & Future Strategic Needs.
- Irish Water, 2018b. Ringsend Wastewater Treatment Plant Upgrade Project Environmental Impact Assessment Report.
- JOR, 2022. Hartfield Place SHD Engineering Services Report for Strategic Housing Development Application at Swords Road, Whitehall. Joseph O'Reilly Consulting Civil & Structural Engineers.
- Met Éireann, 2020. Wind - Met Éireann [WWW Document]. Wind - Wind over Ireland. URL <https://www.met.ie/climate/what-we-measure/wind> (accessed 1.14.20).
- Myplan.ie, 2021. Myplan.ie [WWW Document]. Myplan.ie - Department of Housing, Planning & Local Government. URL <https://viewer.myplan.ie/> (accessed 10.5.21).
- NPWS, 2021. Conservation Objectives: Howth Head Coast SPA 004113.
- NPWS, 2020a. Natura Standard Data Form: Baldoyle Bay SPA 004016.
- NPWS, 2020b. Natura 2000 Standard Data Form Malahide Estuary SPA 004025 [WWW Document]. URL <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004025.pdf> (accessed 8.31.21).
- NPWS, 2020c. Natura 2000 Standard Data Form Malahide Estuary SAC 000205.



- NPWS, 2020d. Natura Standard Data Form: Howth Head Coast SPA 004113.
- NPWS, 2018a. South Dublin Bay SAC 000210 - Natura Standard Data Form.
- NPWS, 2018b. Natura 2000 - Standard Data Form: Baldoyle Bay SAC 000199.
- NPWS, 2018c. Natura Standard Data Form: Dalkey Islands SPA 004172.
- NPWS, 2017a. Natura 2000 Standard Data Form - South Dublin Bay and River Tolka Estuary SPA 004024.
- NPWS, 2017b. Natura 2000 - Standard Data Form: North Bull Island SPA 004006.
- NPWS, 2017c. Natura 2000 - Standard Data Form: North Dublin Bay 000206.
- NPWS, 2017d. Natura 2000 standard data form: Rockabill to Dalkey Island SAC 003000.
- NPWS, 2015a. Site Synopsis: South Dublin Bay and River Tolka Estuary SPA (004024).
- NPWS, 2015b. Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024.
- NPWS, 2015c. Conservation Objectives: North Bull Island SPA 004006. Version 1.
- NPWS, 2014a. North Bull Island SPA (004006) Conservation objectives supporting document - Version 1.
- NPWS, 2014b. Site Synopsis: North Bull Island SPA 004006.
- NPWS, 2013a. Conservation Objectives: North Dublin Bay SAC 000206. Version 1.
- NPWS, 2013b. Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1.
- NPWS, 2013c. Conservation Objectives: Baldoyle Bay SPA 004016.
- NPWS, 2013d. Conservation Objectives Malahide Estuary SPA 004025.
- NPWS, 2013e. Conservation Objectives: Malahide Estuary SAC 000205. Version 1.
- NPWS, 2013f. Malahide Estuary SPA (004025) Conservation Objectives Supporting Document. Version 1.
- NPWS, 2012a. Conservation Objectives: Baldoyle Bay SAC 000199.
- NPWS, 2012b. Baldoyle Bay SPA (004016) Conservation Objectives Supporting Document. Version 1.
- NRA, 2009. Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. National Roads Authority.
- OPR, 2021. OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management.
- Parnell, J., Curtis, T., 2012. Webb's An Irish Flora, 8th ed. Trinity College Dublin.
- Scott Cawley, 2017. Natura Impact Statement - Information for Stage 2 Appropriate Assessment. Proposed Residential Development St. Paul's College, Sybill Hill, Raheny, Dublin 5. Dublin.
- Scottish Natural Heritage, 2017. Recommended bird survey methods to inform impact assessment of onshore wind farms.
- Smith, G.F., O'Donoghue, P., O'Hora, K., Delaney, E., 2011. Best practice guidance for habitat survey and mapping. The Heritage Council: Ireland.
- Tyldesley, D., Chapman, C., 2013. The Habitat Regulations Assessment Handbook, May 2021 edition.

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