

Appropriate Assessment Screening Report For Royal Canal Park Phase 4 at the former Ormond Printworks, Ratoath Road, Dublin 11

prepared for Ballymore RCP Development Services Ltd.

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1 Introduction

This report, which contains information required for the competent authority (in this instance An Bord Pleanála) to undertake a screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on and assesses the potential for the proposed development to impact on the Natura 2000 network (hereafter referred to as European sites)¹. The proposed development is located at the former Ormond Printworks site, Ratoath Road, Pelletstown, Dublin 11. The proposed development is a mixed-use scheme comprising 435 apartments and 4,162sqm of commercial/ retail space in 5 blocks. Three new public open spaces are proposed to the north, south and western sides of the development. All car-parking for the proposed development site is accommodated at ground floor below the residential courtyards.

An AA is required if likely significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

For the reasons set out in detail in this AA Screening Report, it may be objectively concluded that an <u>Appropriate Assessment of the proposed development is required in this instance</u> as it cannot be concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, will not have a significant effect on the following European site(s): North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

2 Methodology

2.1 Guidance

This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities.
 (Department of Environment, Heritage and Local Government, 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.
 Circular NPW 1/10 & PSSP 2/10;
- 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 (European Commission, 2001);
- Communication from the Commission on the precautionary principle (European Commission, 2000); and,
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2018).

In Ireland these sites are designed as *European sites* - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

¹ The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.



2.2 Assessment Methodology

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).

Significant effects on a European site are those that would negatively undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).

Screening for Appropriate Assessment involves the following steps:



If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.

In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)²), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

The identification of source-pathway-receptor connection(s) between the proposed development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (ZoI) of the proposed development, and therefore potentially at risk of significant effects. The ZoI is the area over which the proposed development could affect the receiving environment such that it could potentially have significant

² The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.



effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives³.

The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs/SCIs). Where uncertainty exists, the precautionary principle⁴ is applied.

2.3 Desktop Data Review

The desktop data sources used to inform the assessment presented in this report are as follows:

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie, including conservation objectives documents
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.epa.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie
- Information on the location, nature and design of the proposed development supplied by the applicant's design team

2.4 Baseline Surveys

A site walkover was carried out on 9th April 2019 to document the habitats and species present or likely to be present within the lands, and to inform the assessment of likely significant effects on European sites.

3 Provision of Information for Screening for Appropriate Assessment

The following sections provide information to facilitate the Appropriate Assessment screening of the proposed development to be undertaken by the competent authority.

A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of

³ As defined in the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018)

⁴ The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document Communication from the Commission on the Precautionary Principle (European Commission, 2000) notes that the precautionary principle "covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are possible and AA must be carried out.



ecological impacts where they may highlight potential pathways for impacts associated with the proposed development to affect the receiving ecological environment (e.g. hydrogeological and hydrological data).

The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed development will result in likely significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Development

The proposed development is located at the former Ormond Printworks site, Ratoath Road, Pelletstown, Dublin. The surrounding area is largely comprised of residential and industrial buildings. The site is bounded to the south by the Royal Canal tow path. Tolka Valley Park is located c. 70m north of the proposed development site and comprised of grassland and woodland habitat. The River Tolka flows through the park and lies c. 145m north of the proposed development site.

The proposed development is a mixed-use (residential and commercial) scheme, accommodated in 5no. buildings (Blocks A to E inclusive) ranging in height from 4 to 13 storeys and incorporating an undercroft level, at a site measuring c.1.88ha. Residential use accommodated in 435 no. dwellings (218 no. 1-bed and 217 no. 2-bed apartments), with ancillary private and private communal amenity spaces. Employment uses (c.4,162 sq.m) include a primary healthcare centre (including a café), a pharmacy, own door offices, and a fitness centre (including a juice bar). Ancillary and associated site development works include 2 no. new vehicular site entrances at Hamilition View; ancillary undercroft and on-street car parking spaces, including visitor/drop-off and car sharing scheme; bicycle parking spaces at surface and undercroft levels; ancillary plant, bin storage, ESB substations; public open space / plazas (c. 10,770 sq.m in total) at entrances to the scheme to the north, south and west.

Foul effluent from the proposed development will drain to the existing 225mm foul sewer on Ratoath Road and will be pumped to Ringsend WWTP for treatment. Surface waters from the proposed development site will pass through a range of SuDS (Sustainable Drainage Systems) including green roofs, permeable paving and tree pits/bio-retention systems. Waters from green roofs and permeable paving (as necessary) will be attenuated in a Stormtech detention/infiltration system. All surface waters will pass through a hydrocarbon interceptor before discharge to the surface water network. These waters will ultimately drain to Dublin Bay via the Tolka River.

3.2 Overview of the Receiving Environment

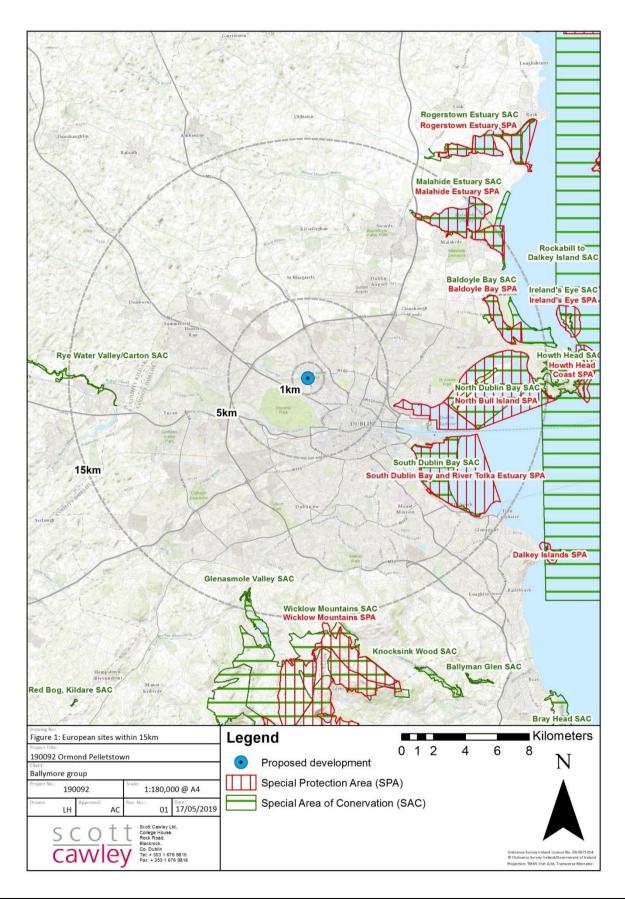
3.2.1 European sites

There are no European sites within the proposed development boundary. Surface and foul waters from the proposed development ultimately drain to Dublin Bay, which contains the following European sites: North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and Rockabill to Dalkey Island SAC.

All of the European sites present in the vicinity of the proposed development are shown on Figure 1 below. The QIs/SCIs of the European sites in the vicinity of the proposed development are provided in Appendix I.



Figure 1 European sites in the vicinity of the proposed development





3.2.2 Habitats

The proposed development site is the site of a former printing plant and is currently being used as a construction compound by Ballymore group. Approximately half of the site is comprised of buildings and artificial surfaces and the other half is spoil and bare ground/recolonising bare ground habitat. There are also some small patches of amenity grassland and scrub/ hedgerow habitat. The buildings and artificial surfaces on the site are currently being demolished under a recent permission (DCC Reg. Ref. 3568/19).

The surrounding area is largely comprised of residential and industrial buildings. Tolka Valley Park is located c. 70m north of the proposed development site and comprised of grassland and woodland habitat. The River Tolka flows through the park and lies c. 145m north of the proposed development site. The Royal Canal is located c. 20m south of the proposed development site. The Royal Canal Greenway is located directly adjacent to the southern boundary of the site which is used as a walking trail and cycleway.

3.2.3 Flora and Fauna Species

No flora or fauna species for which European sites have been designated were recorded during the field surveys. There are no non-native invasive plant species listed on the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations 2011* (as amended) present on the proposed development site.

3.2.4 Hydrology

There are no surface water features located within the proposed development site. The nearest watercourse is the Royal Canal which is located directly south of the proposed development site. However, the proposed development site does not drain to the canal as it is uphill from the site. Currently, surface waters from the proposed development site drain to the River Tolka, which is located c. 145m north. The River Tolka flows in a south-easterly direction and enters Dublin Bay via the Tolka Estuary approximately 5.4km south-east of the proposed development site. Surface waters from the site will pass through a range of SuDS (Sustainable Drainage Systems) prior to discharging to the River Tolka.

According to the EPA Envision MapViewer the proposed development site is located within the River Tolka catchment and Tolka sub-basin. The water quality status of the River Tolka in this area is 'poor' and it has a Water Framework Directive (WFD) risk status of 'at risk'. The Tolka Estuary has a water quality status of 'potentially eutrophic' and a WFD status of 'at risk'. Dublin Bay however, has a water quality status of 'good' and a WFD status of 'not at risk'.

The most recent water quality data on the Royal Canal indicates that its biological quality is 'good' in the Dublin area⁵.

3.2.5 Hydrogeology

Geological Survey of Ireland (GSI) data indicates that the site is underlain by a Locally Important Bedrock Aquifer (LI), which is described by the GSI as 'Moderately productive only in local zones.' The proposed development site is within the Dublin groundwater body which is currently classified by the EPA as having 'Good Status', and being 'Not at risk' of not achieving good status under the Water Framework Directive (2000/60/EC).

Boreholes carried out at the site show boulder clay in excess of 2.5m below ground level and the water table in excess 2.7m.

⁵ EPA (2018). Water Quality in 2017. An Indicators Report. Available from: https://www.epa.ie/pubs/reports/water/waterqua/Water%20Quality%20in%202017%20-%20an%20indicators%20report.pdf



3.2.6 Soils & Geology

Ground investigations found that one out of four samples taken showed results of elevated Total Organic Carbon. However, as outlined in the Construction Demolition Waste Management Plan report the material is considered to be suitable for reuse on site⁶. It is therefore not considered to result in any likely significant effects on European sites.

3.3 Assessment of Likely Significant Effects on European Sites

This section identifies the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a likely significant effect on any European site, either alone or in combination with other plans or projects.

In assessing the potential for the proposed development to result in a likely significant effects on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

3.3.1 Habitat loss and fragmentation

The proposed development does not overlap with the boundary of any European sites. Therefore, there are no European sites at risk of direct habitat loss impacts.

As the proposed development does not traverse any European sites there is no potential for habitat fragmentation to occur.

3.3.2 Habitat degradation as a result of hydrological impacts

Contaminated surface water run-off, or an accidental pollution event during construction, or operation, has the potential to affect water quality in Dublin Bay and fauna that use intertidal and marine habitats within Dublin Bay.

Contaminated surface water run-off or a pollution event, of a sufficient magnitude, has the potential to affect the receiving aquatic and marine environments (either alone or in combination with other pressures on water quality) to an extent that undermines the conservation objectives of Dublin Bay, and other hydrologically connected European sites.

Internationally important numbers of wintering birds use intertidal and estuarine habitats in Dublin Bay for feeding and roosting. These species would be vulnerable to an accidental pollution incident either directly e.g. through direct contact with oil or other polluting chemicals, or indirectly by affecting the habitats and food supply on which they rely for feeding and roosting.

Measures will be required to ensure that the proposed development does not negatively affect water quality in the receiving environment and Dublin Bay.

3.3.3 Habitat degradation as a result of hydrogeological impacts

The proposed development will have an imperceptible effect on groundwater as there is underlying boulder clay in excess of 2.5m below ground level and the water table is in excess of 2.7m. There are no groundwater dependent habitats or species for which European sites have been designated in the same groundwater body as the proposed development. Therefore, there will be no groundwater impacts on European sites as a result of the proposed development.

⁶ AWN Consulting (2019). Construction and Demolition Waste Management Plan for the 8th Lock Royal Canal Development at the Former Ormond Printworks, Ratoath Road, Dublin 11, D11 HY83.



Therefore, there is no possibility of any other plans or projects acting in combination with the proposed development to undermine the conservation objectives of any of the qualifying interests or special conservation interests of the European sites as a result of groundwater effects.

3.3.4 Habitat degradation as a result of introducing/spreading non-native invasive species

The proposed development site does not support any non-native invasive species which could be accidentally spread or introduced to habitats within European sites.

As there is no risk of the proposed development spreading non-native invasive species to European sites, there is no potential for in-combination effects to occur in that regard.

3.3.5 Disturbance and displacement impacts

Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m⁷. For birds, disturbance effects would not be expected to extend beyond a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance. There are no European sites within the disturbance ZoI; the nearest European site to the proposed development is c. 5.6km away.

As the proposed development will not result in the disturbance/displacement of the qualifying/special conservation interest species of any European site, there is no potential for any in combination effects to occur in that regard.

3.3.6 Summary

The potential impacts associated with the proposed development have the potential to affect the receiving environment and, as a result, the conservation objectives supporting the qualifying interest/special conservation interests of four European sites: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

The potential impacts of the proposed development on the receiving environment, their ZoI, and the European sites at risk of likely significant effects are summarised in Table 1 below.

Table 1 Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects	Are there any European sites within the ZoI of the proposed development?
Habitat loss	No
Habitat loss will be confined to the lands within the proposed development boundary.	There are no European sites within the proposed development boundary
Habitat degradation as a result of hydrological impacts	Yes
Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.
Habitat degradation as a result of hydrogeological impacts	No

⁷ This is consistent with Transport Infrastructure Ireland (TII) guidance (*Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes* and *Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes*) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual ZoI of construction related disturbance likely to be much less in reality.



Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	Are there any European sites within the ZoI of the proposed development?
Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	There are no European sites at risk of hydrogeological effects associated with the proposed development
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the proposed development site.	No There are no non-native invasive species present on the proposed development site and, therefore, no risk associated with the proposed development to any European sites from the spread/introduction of non-native invasive species
Disturbance and displacement impacts Potentially up to several hundred metres from the proposed development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the proposed development, in conjunction with the sensitivity of the qualifying interest species to disturbance effects	No There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the proposed development

4 Conclusions of Screening Assessment Process

Following an examination, analysis and evaluation of the relevant information, including in particular, the nature of the project and its potential relationship with European sites and their conservation objectives, as well as considering other plans and projects, and applying the precautionary principle, it is the professional opinion of the authors of this report that there is the potential for likely significant effects on the following European sites, for the reasons set out in Section 3.3 above: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development requires an Appropriate Assessment and the preparation of a Natura Impact Statement (NIS).

However, the authors of this report acknowledge that it is for the competent authority to carry out a screening for AA and to reach one of the following determinations:

- AA of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites;
- 2 AA of the proposed development is not required if it can be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites.



Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s)	Location Relative to the Proposed Development
(*Priority Annex I Habitats)	Site
Special Area of Conservation (SAC)	
Rye Water Valley/Carton SAC [001398]	Located c. 12km west of the
[7220*] Petrifying springs with tufa formation (Cratoneurion)	proposed development site
[1014] Narrow-mouthed Whorl Snail <i>Vertigo angustior</i>	
[1016] Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i>	
NPWS (2018) Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.8	
North Dublin Bay SAC [000206]	Located c. 8.6km south-east
[1140] Mudflats and sandflats not covered by seawater at low tide	of the proposed
[1210] Annual vegetation of drift lines	development site
[1310] Salicornia and other annuals colonising mud and sand	
[1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	
[1395] Petalwort <i>Petalophyllum ralfsii</i>	
[1410] Mediterranean salt meadows (Juncetalia maritimi)	
[2110] Embryonic shifting dunes	
[2120] Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	
[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)	
[2190] Humid dune slacks	
NPWS (2013a) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
South Dublin Bay SAC [000210]	Located c.7.7km south-east
[1140] Mudflats and sandflats not covered by seawater at low tide	of the proposed
[1210] Annual vegetation of drift lines	development site
[1310] Salicornia and other annuals colonising mud and sand	
[2110] Embryonic shifting dunes	
NPWS (2013b) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	

⁸ The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing



Proposed Development Site	European Site Name [Code] and its	Location Relative to the
Located c. 11.6km north-east of the proposed development site	Qualifying interest(s) / Special Conservation Interest(s)	Proposed Development
1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritima)	(*Priority Annex I Habitats)	Site
[1310] Salicornia and other annuals colonizing mud and sand [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows (Juncetalia maritimi) NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht Malahide Estuary SAC [000205] [140] Mudflats and sandflats not covered by seawater at low tide [1310] Salicornia and other annuals colonising mud and sand [1320] Spartina swards (Spartinion maritimae) [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows (Juncetalia maritimi) [2120] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Howth Head SAC [000202] [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. Rogerstown Estuary SAC [000208] [1130] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other annuals colonising mud and sand [1310] Salicornia and other	Baldoyle Bay SAC [000199]	Located c. 11.6km north-
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[1140] Mudflats and sandflats not covered by seawater at low tide [1310] Salicornia and other annuals colonising mud and sand [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows (Juncetalia maritimi) [2120] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise Phocoena phocaena	Rogerstown Estuary SAC [000208]	
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[1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows (Juncetalia maritimi) [2120] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise Phocoena phocaena Site	·	development site
[1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) NPWS (2013) <i>Conservation Objectives: Rogerstown Estuary SAC 000208</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocaena</i> Site		
[2120] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise Phocoena phocaena Located c. 14.5km east of the proposed development site		
NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise Phocoena phocaena	· · · · · · · · · · · · · · · ·	
Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise Phocoena phocaena Site	[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)	
Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocaena</i> Located <i>c.</i> 14.5km east of the proposed development site		
[1170] Reefs [1351] Harbour porpoise <i>Phocoena phocaena</i> the proposed development site		
[1351] Harbour porpoise <i>Phocoena phocaena</i> site		
[1351] Harbour porpoise Phocoena phocaena		
NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1.	[1351] Harbour porpoise <i>Phocoena phocaena</i>	
National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.		



European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Glenasmole Valley SAC [001209] [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinian caeruleae) [7220] Petrifying springs with tufa formation (Cratoneurion)	Located c. 13.5km south of the proposed development site
NPWS (2018) <i>Conservation objectives for Glenasmole Valley SAC [001209]</i> . Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	
Ireland's Eye SAC [002193] [1220] Perennial vegetation of stony banks [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks	Located c. 16.3km east of the proposed development site
and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	
Wicklow Mountains SAC [002122] [3110] Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3160] Natural dystrophic lakes and ponds [4010] Northern Atlantic wet heaths with Erica tetralix [4030] European dry heaths [4060] Alpine and Boreal heaths [6130] Calaminarian grasslands of the Violetalia calaminariae [6230] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [7130] Blanket bogs (* if active bog) [8110] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8210] Calcareous rocky slopes with chasmophytic vegetation [8220] Siliceous rocky slopes with chasmophytic vegetation [91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles [1355] Lutra lutra (Otter) NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	Located c. 16km south of the proposed development site
Knocksink Wood SAC [000725] [7220] Petrifying springs with tufa formation (Cratoneurion)* [91E0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* NPWS (2018) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	Located c. 19.4km southeast of the proposed development site
Bray Head SAC [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths	Located c. 24.6km southeast of the proposed development site



European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
NPWS (2017) <i>Conservation Objectives: Bray Head SAC 000714.</i> Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	
Ballyman Glen SAC [000713] [7220] Petrifying springs with tufa formation (Cratoneurion)* [7230] Alkaline fens	Located c. 20.1km south- east of the proposed development site
NPWS (2018) Conservation objectives for Ballyman Glen SAC [000713]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	
Red Bog, Kildare [000397]	
[7140] Transition mires and quaking bogs	
NPWS (2018) Conservation objectives for Red Bog, Kildare SAC [000397]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	
Special Protection Area (SPA)	
North Bull Island SPA [004006]	Located c. 5.6km west of
[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i>	the proposed development
[A048] Shelduck <i>Tadorna tadorna</i>	site
[A052] Teal Anas crecca	
[A054] Pintail <i>Anas acuta</i>	
[A056] Shoveler <i>Anas clypeata</i>	
[A130] Oystercatcher Haematopus ostralegus	
[A140] Golden Plover <i>Pluvialis apricaria</i>	
[A141] Grey Plover <i>Pluvialis squatarola</i>	
[A143] Knot Calidris canutus	
[A144] Sanderling Calidris alba	
[A149] Dunlin <i>Calidris alpina</i>	
[A156] Black-tailed Godwit <i>Limosa limosa</i>	
[A157] Bar-tailed Godwit <i>Limosa lapponica</i>	
[A160] Curlew Numenius arquata	
[A162] Redshank <i>Tringa totanus</i>	
[A169] Turnstone Arenaria interpres	
[A179] Black-headed Gull Croicocephalus ridibundus	
[A999] Wetlands & Waterbirds	
NPWS (2015a) <i>Conservation Objectives: North Bull Island SPA 004006</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
South Dublin Bay and River Tolka Estuary SPA [004024]	Located c. 7.8km south-east
[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i>	of the proposed
[A130] Oystercatcher Haematopus ostralegus	development site
[A137] Ringed Plover Charadrius hiaticula	
[A141] Grey Plover <i>Pluvialis squatarola</i>	
[A143] Knot Calidris canutus	
[A144] Sanderling <i>Calidris alba</i>	
[A149] Dunlin <i>Calidris alpina</i>	
[A157] Bar-tailed Godwit <i>Limosa lapponica</i>	



European Site Name [Code] and its	Location Relative to the
Qualifying interest(s) / Special Conservation Interest(s)	Proposed Development
(*Priority Annex I Habitats)	Site
[A162] Redshank <i>Tringa totanus</i>	
[A179] Black-headed Gull <i>Croicocephalus ridibundus</i>	
[A192] Roseate Tern Sterna dougallii	
[A193] Common Tern Sterna hirundo	
[A194] Arctic Tern Sterna paradisaea	
[A999] Wetland and Waterbirds	
[ASSS] Wedana and Watershas	
NPWS (2015b) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Baldoyle Bay SPA [004016]	Located c. 12km north-east
[A046] Light-bellied Brent Goose Branta bernicla hrota	of the proposed development site
[A048] Shelduck <i>Tadorna tadorna</i>	development site
[A137] Ringed Plover Charadrius hiaticula	
[A140] Golden Plover <i>Pluvialis apricaria</i>	
[A141] Grey Plover <i>Pluvialis squatarola</i>	
[A157] Bar-tailed Godwit <i>Limosa lapponica</i>	
[A999] Wetland and Waterbirds	
NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Malahide Estuary SPA [004025]	Located c. 13km north-east
[A005] Great Crested Grebe <i>Podiceps cristatus</i>	of the proposed
[A046] Light-bellied Brent Goose Branta bernicla hrota	development site
[A048] Shelduck <i>Tadorna tadorna</i>	
[A054] Pintail <i>Anas acuta</i>	
[A067] Goldeneye Bucephala clangula	
[A069] Red-breasted Merganser Mergus serrator	
[A130] Oystercatcher Haematopus ostralegus	
[A140] Golden Plover <i>Pluvialis apricaria</i>	
[A141] Grey Plover <i>Pluvialis squatarola</i>	
[A143] Knot Calidris canutus	
[A149] Dunlin Calidris alpina	
[A156] Black-tailed Godwit <i>Limosa limosa</i>	
[A157] Bar-tailed Godwit <i>Limosa lapponica</i>	
[A162] Redshank <i>Tringa totanus</i>	
[A999] Wetland and Waterbirds	
NPWS (2013) <i>Conservation Objectives: Malahide Estuary SPA 004025.</i> Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	



European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Wicklow Mountains SPA [004040]	Located c. 16km south of
[A098] Merlin <i>Falco columbarius</i> [A103] Peregrine <i>Falco peregrinus</i>	the proposed development site
NPWS (2018) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	
Ireland's Eye SPA [004117]	Located c. 16.2km east of
[A017] Cormorant <i>Phalacrocorax carbo</i>	the proposed development site
[A184] Herring Gull <i>Larus argentatus</i>	Site
[A188] Kittiwake Rissa tridactyla	
[A199] Guillemot <i>Uria aalge</i>	
[A200] Razorbill <i>Alca torda</i>	
NPWS (2018) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	
Rogerstown Estuary SPA [004015]	Located c. 16.7km north-
[A043] Greylag Goose Anser anser	east of the proposed development site
[A046] Brent Goose Branta bernicla hrota	development site
[A048] Shelduck <i>Tadorna tadorna</i>	
[A056] Shoveler Anas clypeata	
[A130] Oystercatcher Haematopus ostralegus	
[A137] Ringed Plover Charadrius hiaticula	
[A141] Grey Plover Pluvialis squatarola	
[A143] Knot Calidris canutus	
[A149] Dunlin Calidris alpina alpina	
[A156] Black-tailed Godwit <i>Limosa limosa</i>	
[A162] Redshank <i>Tringa totanus</i>	
[A999] Wetlands	
NPWS (2013) <i>Conservation Objectives: Rogerstown Estuary SPA 004015</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Howth Head Coast SPA [004113]	Located c. 17km east of the
[A188] Kittiwake Rissa tridactyla	proposed development site
NPWS (2018) <i>Conservation objectives for Howth Head Coast SPA [004113]</i> . Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	



European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Dalkey Islands SPA [004172] [A192] Roseate Tern Sterna dougallii [A193] Common Tern Sterna hirundo [A194] Arctic Tern Sterna paradisaea	Located c. 17.7km east of the proposed development site
NPWS (2018) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.	