



**Appropriate Assessment Screening Report
for Proposed Strategic Housing Development at lands adjacent to
The Grange, Brewery Road/ Stillorgan Road, Stillorgan, Blackrock,
Co. Dublin**

prepared for KW PRS ICAV
acting for and on behalf of its sub-fund KW PRS Fund 10 (Kennedy Wilson).

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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)

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 consists of the demolition of a number of existing buildings on site and the subsequent construction of 287 residential units (in the form of 4 no. apartment blocks), creche facility, residential amenity facility (including café) and car and bicycle parking spaces, all on a site located at lands adjacent to The Grange, Brewery Road/ Stillorgan Road, Stillorgan, Blackrock, Co. Dublin.

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 **Appropriate Assessment of the proposed development is not required in this instance** as it can 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 any European sites.

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).

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.

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).

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 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 (accessed on the 30th July 2019):

- 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.gsi.ie

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.

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.

- 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
- *Dún-Laoghaire – Rathdown County Development Plan 2016-2022* (Dún-Laoghaire – Rathdown County Council, 2016)

The following technical report, outlining the hydrological risks associated with the proposed development was also used to inform this assessment:

- *Hydrological & Hydrogeological Qualitative Risk Assessment for Proposed Residential Development Site at Brewery Road, Stillorgan, Co. Dublin* (AWN Consulting Ltd., 2019).
-

2.4 Baseline Surveys

This section describes the ecological surveys carried out to inform the assessment of likely significant effects on European sites.

A site survey, which involved a habitats and flora survey and a survey for fauna signs, was carried out on site on 6th February 2019. The presence of fauna, including those protected under national and international legislation such as badgers, otters and red squirrel, was determined based on the detection of field signs, such as:

- Droppings;
- Badger setts/otter holts/squirrel dreys or other mammal dens;
- Tracks; and,
- Hair caught on wire fences.

Two dedicated breeding bird surveys were also carried out in summer 2019. An internal and external inspection of all the accessible buildings⁵ on site was undertaken, to assess their potential to support roosting bats and to search for signs of bat activity.

In addition, a number of trees located across the proposed development site were examined from ground level for potential bat roosts. They were assessed based on the presence of features commonly used by bats. Finally, bat activity surveys were carried out at the proposed development site on the following dates; 27th June, 12th July and 25th July 2019, which lies within the optimum survey season for bats..

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 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

⁵ Surveys could not be undertaken in cottages which face out onto the N11 for health and safety reasons as the buildings were not safe to enter.

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

KW PRS ICAV acting for and on behalf of its sub-fund KW PRS Fund 10 intends to apply to An Bord Pleanála for permission for a residential development as part of a Strategic Housing Development on lands adjacent to The Grange, Brewery Road/ Stillorgan Road, Stillorgan, Blackrock, Co. Dublin. The site (c. 1.6 ha) includes 'The Grange Select Marketing Suite', 'Oaktree Business Centre', 'The Gate Lodge' and Nos. 2 and 3 The Grange Cottages.

The proposed development shall provide for the demolition (total c. 1, 398 sq. m GFA) of 'The Grange Select Marketing Suite' (1 storey), 'Oaktree Business Centre' (2 storeys) and 'The Lodge' (2 storeys); and the construction of a new residential scheme of 287 residential units; residential tenant amenity space of 961.5 sq m; a crèche facility of 658 sq m; and a substation of 111.5 sq m in the form of 6 new blocks (Blocks H, J, M, N, P and Q) ranging in height from 1 - 11 storeys as follows:

The residential development provides for 287 no. units (19 no. studio units, 125 no. 1 bed units and 143 no. 2 bed units) in Blocks H, J, M and N as follows:

- Block H (7 - 11 storeys from Brewery Road) comprising 99 no. apartments (6 no. studios, 50 no. 1 bed units and 43 no. 2 beds);
- Block J (5 - 10 storeys from Brewery Road) comprising 75 no. apartments (36 no. 1 bed units and 39 no. 2 bed units);
- Block M (4 - 9 storeys from podium) comprising 73 no. apartments (38 no. 1 bed units and 35 no. 2 bed units); and
- Block N (6 - 7 storeys from Brewery Road) comprising 40 no. apartments (13 no. studios, 1 no. 1 bed units and 26 no. 2 bed units).

Each residential unit has associated private open space in the form of a balcony/terrace/roof terrace.

The following residential tenant amenity space, crèche facility and substation proposals are also delivered:

- Blocks H (7 - 11 storeys) also contains a Tenant Amenity Space of 961.5 sq m. This area includes a gym space, male and female changing areas, accessible changing areas, a cinema room, entrance lobby, lounge areas, kitchen/dining areas, games area, management suite, 4 no. meeting rooms, co-working space, security/parcels area, storage areas, tea station, toilets, letter box area and all associated extraneous areas, all of which are areas dedicated to use by future tenants.
- Block P (3 storeys) provides for a crèche facility of c.658 sq m and associated outdoor play area in the form of a roof terrace of c.222.9 sq m.
- Block Q (1 storey at basement level/level 00) provides for an ESB substation of 111.5 sq m.

A basement area (total c. 3,317.9 sq m) is also proposed below Blocks H, J & M at Level 00. A total of 100 car parking spaces (16 at surface level and 84 at basement level), 596 bicycle spaces (518 at basement level and 78 at surface level) and 5 motorcycle spaces (all at basement level) are proposed. Waste Management areas and plant areas are also located at basement level.

Public open space is also proposed in the form of external residential amenity spaces, play areas, courtyards, gardens and trim trails (c.10,465 sq m). Provision is also made for pedestrian connections to the adjoining park to the south west and the existing 'The Grange' development to the south east.

Nos. 2 and 3 The Grange Cottages (single storey) are retained within the current proposal and works to these residential dwellings relate solely to landscape proposals. No works are proposed to the structure or layout of these units.

The development shall be accessed via the existing vehicular access point from Brewery Road. It is proposed to reconfigure the alignment of this vehicular access point to facilitate the proposed development and provide for improved access and egress for the overall 'The Grange' development.

The associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works; boundary treatment; internal roads and footpaths; and electrical services.

It is not envisaged that the development will require any blasting or piling. It is proposed to deliver the proposed development in a single phase with a construction duration of c. 30 months.

The existing site drains surface water, unrestricted, to a culverted section of Brewery Stream which lies along Brewery Road. It is proposed that the proposed development will attenuate the surface water on site before discharging it, at a restricted rate, via two outfalls, to the same culverted section of the Brewery Stream.

Dun-Laoghaire – Rathdown County Council requires that post-development run-off rates are limited to greenfield run-off rates for the site. The greenfield run-off rate for the whole site has been calculated as 5.65 l/s (Qbar).

Therefore, it is proposed to limit the discharge from the site to 5.65l/s by providing Sustainable Urban Drainage System (SUDs), connected to two outfalls each served by a Hydrobrake. This will greatly reduce the run-off from site, and reduce the risk of the public sewer surcharging during high storm events reducing the impact of the proposed development on the surrounding environment.

The SUDs techniques to be employed across the proposed development site are set out below:

- **Green Roofs:** Green roofs have been incorporated into the development proposals (please see Waterman Moylan SUDs Drawing 18-093- P205 for the proposed locations of green roofs).
- **Permeable Paving:** Permeable paving will be used on both the podium levels and creche carpark. In the car parking area, instead of infiltrating, the permeable paving sub-base will be used for attenuation purposes. A perforated pipe will be included in the sub- base to convey surface water to the attenuation tank via a swale.
- **Attenuation Tank:** It is proposed to provide attenuation in a concrete tank below the basement carpark for the apartment blocks to the north-east of the access road and a portion of the access road and pavement. In addition, a modular attenuation tank will be provided to the south-west of the access road in front of Block N, to serve the creche, realigned access road and Block N.
- **Swales:** A number of swales will be created on site. Please see Waterman Moylan Drainage Layout Level 01 Drawing 18-093 P201 for the locations of the proposed swales.
- **Petrol Interceptor:** In the basement carpark area, any rainwater entering the system as a result of snow melt or raindrops from cars will pass through a petrol interceptor prior to release to the wider surface water system. Another petrol interceptor will be provided before the attenuation tank.

It is proposed that the surface water run-off from the proposed development will drain via gravity to the culverted Brewery Stream, located on Brewery Road. Strict separation of surface water and wastewater will be implemented within the development.

An existing 225mm diameter foul sewer is located on Brewery Road which drains the residential properties along this road. There is also an existing private foul sewer within the site which serves the existing Grange development to the south of the proposed development. The proposed development will result in an increase in foul loadings generated on site. The predicted Population Equivalent (P.E.) following completion of the proposed development is 912.9 P.E. It is proposed that all foul waters generated by the proposed development will drain by gravity to the existing on-site private drainage system, or directly to the public foul sewer located on Brewery Road. The on-site foul water drainage also discharges to the public sewer on Brewery Road. Foul

waters from the proposed development will be directed to the West Pier Pumping Station, from which it is pumped to Ringsend WWTP for treatment, prior to ultimate discharge into Dublin Bay.

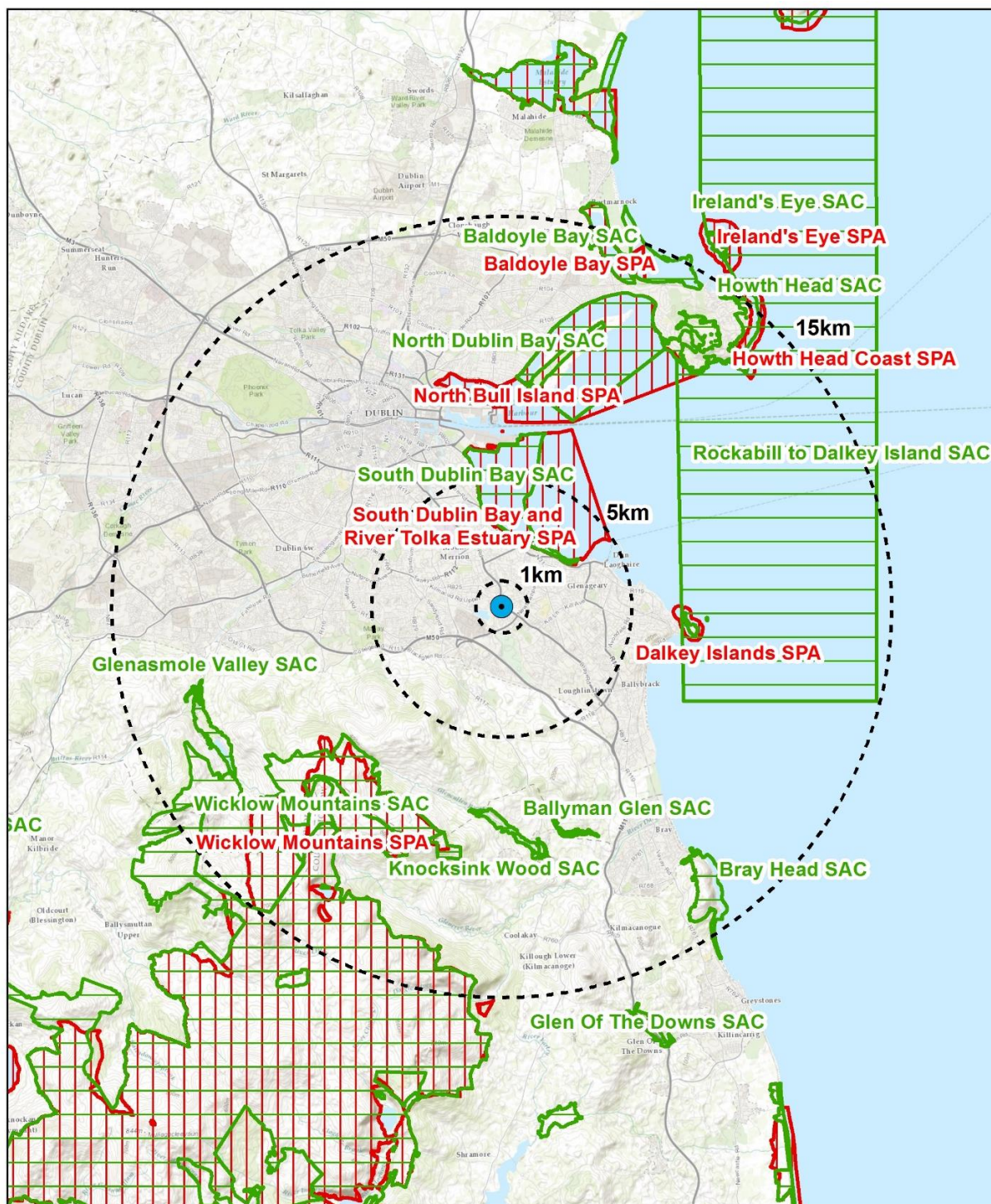
3.2 Overview of the Receiving Environment

3.2.1 European sites

The subject lands do not physically overlap with any European sites. The proposed development site is located <20m from the Brewery Stream, which flows along Brewery Road. The Brewery Stream flows in a north-easterly direction towards Blackrock, where it discharges into Dublin Bay. Dublin Bay at this location is designated as part of South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA. In addition, the following European sites are present within the wider Dublin Bay complex; North Dublin Bay SAC, North Bull Island SPA, Howth Head SAC, Howth Head Coast SPA and Rockabill to Dalkey Islands SAC.

All of the European sites present in the vicinity of the proposed development are shown on Figure 1 overleaf. 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



Drawing No: Fig.1. European sites within 15km			
Project Title: The Grange Apartments SHD			
Client: Kennedy Wilson			
Project No.:	180265	Scale:	1:200,000 @ A4
Drawn:	CK	Approved:	PS
Rev. No.:	01	Date:	18/12/2018
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Legend

- Proposed Development Site
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

N

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Projection: TM65 Irish Grid, Transverse Mercator.

3.2.2 Habitats

The proposed development site is largely comprised of disturbed ground, buildings and artificial surfaces, amenity grassland, ornamental planting, small areas of mixed woodland, treelines and hedgerows. According to the *Dún-Laoghaire - Rathdown County Development Plan 2016-2022*, the zoning objectives which apply to the proposed development include “to protect and-or improve residential amenity” and “to preserve and provide for open space with ancillary active recreational amenities”. The surrounding lands are also residential in nature and comprise residential estates and open areas of green space. The N11 lies to the east of the subject lands while the N31 Brewery Road lies to the west.

3.2.3 Flora and Fauna Species

The desktop study found no records of any species or habitats for which European sites listed in Appendix I were designated within the subject lands or environs. There were no records of species (for which European sites listed in Appendix 1 were designated) within 2km of the proposed development site⁶. Based on the findings of field surveys carried out on site, no species protected under the Habitats Directive (1992) are present on site. However, a substantial infestation of Japanese Knotweed *Fallopia japonica*, a species listed on the Third Schedule of the *Birds and Natural Habitats Regulations (2011)*, is present on site.

3.2.4 Hydrology

The proposed development site is located within the Liffey and Dublin Bay catchment and the Dodder sub-catchment. The nearest waterbody is a culverted section of the Brewery Stream which flows <20m to the south of the southernmost part of the proposed development site. The Brewery Stream flows in a north-easterly direction for approximately 3km where it then discharges into Dublin Bay near Blackrock. According to the EPA's online mapviewer, there is no available data regarding the water quality of the Brewery Stream. The coastal waterbody of Dublin Bay is currently regarded as 'Unpolluted'.

3.2.5 Hydrogeology

The groundwater body at the proposed development site is classified as 'Kilcullen' and is described as 'Poorly productive bedrock' and 'not at risk' of failing to meet its requirements under the Water Framework Directive. According to the GSI Map Viewer, the level of vulnerability to groundwater contamination from human activities ranges from 'Extreme' to 'Rock at or near Surface or Karst'. It is also described as a 'Poor Aquifer- Bedrock which is Generally Unproductive except for Local Zones'. The bedrock of the area is classified as 'Granite with microcline phenocrysts' with the southernmost portion of the site described as 'Pale grey fine to coarse- grained granite'.

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 Zol 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.

⁶ According to NBDC online data www.biodiversity.ie accessed 30th July 2019 (this excludes NBDC records with a resolution greater or equal to 1km²).

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. The proposed development site does not support populations of any fauna species linked with the QI/SCI populations of any European site(s).

As the proposed development will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

3.3.2 *Habitat degradation as a result of hydrological impacts*

Surface water run-off generated from the proposed development will drain via the surface water sewer to the culverted section of the Brewery Stream, located on Brewery Road. Foul waters from the proposed development will be discharged to Ringsend WWTP for treatment, via the existing foul water drainage network, prior to discharge into the Liffey Estuary/Dublin Bay. Therefore, the Zone of Influence (Zoi) of potential effects on water quality from the proposed development could extend to Dublin Bay.

Surface Water

Whilst there are potential source-receptor pathways between the proposed development and the European sites located in Dublin Bay (via the surface water network which discharges into the culverted Brewery Stream which in turn discharges into the coastal waters of Dublin Bay) no significant effects are predicted.

Potential impacts which could occur during the construction stage, and which have been identified and highlighted in a technical report prepared by AWN Consulting (2019), include:

- Leakage of oils/hydrocarbons from construction machinery;
- Discharge to ground of run-off water with high pH from cement process; and;
- Surface water run-off could contain a high concentration of suspended solids during earthworks.

In addition, the following potential impacts, which could occur during the operation stage, were also highlighted in the same technical report:

- Risk of a short-term release of oil from a small life safety generator which will be placed in the basement, contained in an effectively bunded tank with skid
- Leakage of oils/hydrocarbons from cars in parking areas.

Full details of the assessment of these impacts on water quality arising from the both the construction and operation stages are provided in a technical report, prepared by AWN Consulting Ltd (2019). This assessment developed a conceptual site model and concluded that there is no perceptible risk to water quality in Dublin Bay.

Factors relied on to conclude that there will be no perceptible risk include:

- If any silt-laden run-off from construction enters the surface water sewer and culverted section of Brewery Stream which runs under Brewery Road, the suspended solids will naturally settle within the drainage pipes by the time the stormwater reached any open watercourse (South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA lie >2.5km away). Settlement is considered to occur within a distance of <0.5km.
- In the event of a 300 litre (worst case scenario) hydrocarbon leak fully discharging into the stormwater sewer during low flow conditions without mitigation, there is potential for some impact on surface water in the receiving Brewery Stream prior to dilution in the stream. This would be a short-term event. Due to dilution and attenuation the impact would not be measurable >1km from the site i.e. there would be no likely exceedance above statutory guidelines within Dublin Bay. Based on the possible loading of any hazardous material during construction and operation there is subsequently no potential for impact on Dublin Bay water quality status from an accidental discharge to stormwater which will discharge to the Brewery Stream.

Foul Water

In addition, potential source-receptor pathways also exist between the proposed development and the European site through the foul water network (which also ultimately discharges into Dublin Bay, post treatment at Ringsend WWTP). No significant effects, as a result of additional foul water loadings, are predicted.

The discharge of foul effluent from the proposed development site was highlighted as a potential impact which could occur in the operational stage of the proposed development (AWN Consulting, 2019). The technical report concluded that there is no perceptible risk to water quality in Dublin Bay, as a result of additional foul loadings, due to the following:

- The fact that the development will be fully serviced with separate foul and surface water sewers which will have adequate capacity. Discharge will be licenced by Irish Water and the sewage will be transferred to Irish Water's Ringsend WWTP. This WWTP is required to be operated under an EPA licence and to meet environmental legislative requirements. Ringsend WWTP has received planning (2019) and will be upgraded with increased treatment capacity over the next 5 years. Even without treatment at Ringsend WWTP, the peak effluent discharge, calculated from the proposed development, would equate to 0.084% of the licenced discharge at Ringsend WWTP and would not impact on the current Water Body Status of the receiving waters (as defined within the Water Framework Directive) This assessment is supported by hydrodynamic and chemical modelling within Dublin Bay which has shown that there is a significant dilution for contaminants of concern (DIN and MRP) available quite close to the outfall for the treatment plants (WWTP 2012 EIS, WWTP 2018 EIAR). Recent water quality assessment of Dublin Bay also shows that Dublin Bay on the whole, currently has an 'Unpolluted' water quality status (EPA, 2019).

Considering the above, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Dublin Bay as a result of surface water run-off or foul effluent discharges.

In Combination

There is potential for "*in-combination*" effects on water quality in Dublin Bay from any other projects carried out within the functional areas of the *Dublin City Development Plan 2016-2022* (Dublin City Council, 2016), the *Dún Laoghaire-Rathdown County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016), the *Fingal Development Plan 2017-2023* (Fingal County Council, 2017), *South Dublin County Council Development Plan 2016-2022* (South Dublin County Council, 2016), or any other county level land use plans which can influence conditions in Dublin Bay via rivers and other surface water features.

As noted under the surface water and foul water sections above, Dublin Bay is currently unpolluted and the proposed development will not result in any measurable effect on water quality in Dublin Bay. There are also protective policies and objectives in place at a strategic planning level to protect water quality in Dublin Bay.

The assessment prepared by AWN Consulting Ltd. (2019) also considered the potential for cumulative impacts in relation to surface and foul waters e.g. the effect of cumulative events, such as release of sediment-laden water combined with a hydrocarbon leak on site. As there is adequate assimilation and dilution between the site and South Dublin Bay SAC and South Dublin Bay and River Tolka SPA, it is concluded that no perceptible impact on water quality would occur. It can also be concluded that the cumulative or in-combination effects of effluent arising from the proposed development with that of other developments discharging to Ringsend WWTP will not be significant having regard to the size of the calculated discharge from the proposal.

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 in, or associated with, Dublin Bay as a result of water quality effects.

3.3.3 Habitat degradation as a result of hydrogeological impacts

The proposed development will include significant excavation of rock on site. Rock is encountered at c. 0.8m-2m below ground level. Groundwater monitoring found there to be groundwater at 1.25-2.8m below ground

level. Therefore, it is anticipated that groundwater will be encountered during excavation on site. However, any groundwater effects that may arise during construction or operation would be restricted to the immediate local area. The nearest European site for which groundwater dependent habitats are listed as Qualifying Interests is Knocksink Woods SAC which is located c. 7.8km south of the proposed development site. Knocksink Woods SAC is deemed to be beyond the hydrogeological ZoI of the proposed development. Therefore, there is no possibility of the proposed development undermining the conservation objectives of any European as a result of groundwater impacts, either alone or in combination with any other plans or projects.

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

A significant infestation of Japanese Knotweed is present within the proposed development site. This invasive species often spreads via surface water features. There are no surface water features contained within the proposed development site and the nearest surface water feature is the Brewery Stream which is <20m away. However, the Brewery Stream is culverted beneath Brewery Road and therefore there is no potential for invasive plant materials to enter this surface water feature and subsequently be transferred via this network to downstream European sites.

As the surface water network is the only connection with downstream European sites, which could possibly aid the spread of non-native species, and the possibility of spread via this means has been excluded, there is no potential for invasive species to be transferred to downstream European sites.

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.2.5km 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 do not have the potential to affect the receiving environment and, consequently, do not have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of any European sites. Therefore, the proposed development is not likely to have significant effects on any European sites.

As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, there is no potential for any other plan or project to act in combination with it to result in likely significant effects on any European sites.

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.

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.

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 Zol of the proposed development?
Habitat loss Habitat loss will be confined to the lands within the proposed development boundary.	No There are no European sites within the proposed development boundary
Habitat degradation as a result of hydrological impacts Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	No As per the reasons outlined in Section 3.3.2, there are no European sites at risk of hydrological effects associated with the proposed development
Habitat degradation as a result of hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	No 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 Whilst the invasive species Japanese Knotweed is present within the proposed development site, there is no potential for it to be spread to downstream European sites.
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 As the proposed development site is located c. 2.5km from the nearest European site, which is beyond the potential disturbance Zol, there is no risk of disturbing any QI/ SCI fauna species during 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 no potential for likely significant effects on any European sites, for the reasons set out in Section 3.3 above.

Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development does not require an Appropriate Assessment or 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:

- 1 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) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Special Area of Conservation (SAC)	
<p>South Dublin Bay SAC [000210] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] <i>Salicornia</i> and other annuals colonising mud and sand [2110] Embryonic shifting dunes</p> <p>NPWS (2013b) <i>Conservation Objectives: South Dublin Bay SAC 000210</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c.2.5km north-east of the proposed development</p>
<p>Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocaena</i></p> <p>NPWS (2013) <i>Conservation Objectives: Rockabill to Dalkey Island SAC 003000</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 6.9km east of the proposed development site</p>
<p>Wicklow Mountains SAC [002122] [3110] Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3160] Natural dystrophic lakes and ponds [4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4030] European dry heaths [4060] Alpine and Boreal heaths [6130] <i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i> [6230] Species-rich <i>Nardus</i> 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 (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8210] Calcareous rocky slopes with chasmophytic vegetation [8220] Siliceous rocky slopes with chasmophytic vegetation [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [1355] <i>Lutra lutra</i> (Otter)</p> <p>NPWS (2017) <i>Conservation Objectives: Wicklow Mountains SAC 002122</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>The proposed development lies c. 7.7km south-west of the proposed</p>
<p>Knocksink Wood SAC [000725] [7220] Petrifying springs with tufa formation (Cratoneurion)* [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)*</p>	<p>The proposed development lies c. 7.8km south of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>NPWS (2018) <i>Conservation objectives for Knocksink Wood SAC [000725]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	
<p>Ballyman Glen SAC [000713] [7220] Petrifying springs with tufa formation (Cratoneurion)* [7230] Alkaline fens</p> <p>NPWS (2018) <i>Conservation objectives for Ballyman Glen SAC [000713]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 8.4km south of the proposed development site</p>
<p>North Dublin Bay SAC [000206] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] <i>Salicornia</i> and other annuals colonising mud and sand [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1395] Petalwort <i>Petalophyllum ralfsii</i> [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2110] Embryonic shifting dunes [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2190] Humid dune slacks</p> <p>NPWS (2013a) <i>Conservation Objectives: North Dublin Bay SAC 000206</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 8.7km north of the proposed development site</p>
<p>Howth Head SAC [000202] [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths</p> <p>NPWS (2016) <i>Conservation Objectives: Howth Head SAC 000202</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>The proposed development lies c. 11.7km north-east of the proposed development site</p>
<p>Bray Head SAC [000714] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]</p> <p>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</p>	<p>The proposed development lies c. 11.8km south-east of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>Glenasmole Valley SAC [001209] [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [7220] Petrifying springs with tufa formation (<i>Cratoneurion</i>)</p> <p>NPWS (2018) <i>Conservation objectives for Glenasmole Valley SAC [001209]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 12.1km west of the proposed development site</p>
<p>Baldoyle Bay SAC [000199] [1140] Mudflats and sandflats not covered by seawater at low tide [1310] Salicornia and other annuals colonizing mud and sand [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>NPWS (2012) <i>Conservation Objectives: Baldoyle Bay SAC 000199</i>. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p>The proposed development lies c. 13.4km north-east of the proposed development site</p>
<p>Ireland's Eye SAC [002193] [1220] Perennial vegetation of stony banks [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>NPWS (2017) <i>Conservation Objectives: Ireland's Eye SAC 002193</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>The proposed development lies c. 16.2km north-east of the proposed development site</p>
<p>Glen of The Downs SAC [000719] [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>NPWS (2018) <i>Generic Conservation Objectives: Glen of the Downs SAC 000719</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 16.2km south-east of the proposed development site</p>
<p>Special Protection Area (SPA)</p>	
<p>South Dublin Bay and River Tolka Estuary SPA [004024] [A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A137] Ringed Plover <i>Charadrius hiaticula</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A143] Knot <i>Calidris canutus</i> [A144] Sanderling <i>Calidris alba</i> [A149] Dunlin <i>Calidris alpina</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A162] Redshank <i>Tringa totanus</i> [A179] Black-headed Gull <i>Croicocephalus ridibundus</i></p>	<p>The proposed development lies c. 2.6km north-east of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>[A192] Roseate Tern <i>Sterna dougallii</i> [A193] Common Tern <i>Sterna hirundo</i> [A194] Arctic Tern <i>Sterna paradisaea</i> [A999] Wetland and Waterbirds</p> <p>NPWS (2015b) <i>Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Dalkey Islands SPA [004172]</p> <p>[A192] Roseate Tern <i>Sterna dougallii</i> [A193] Common Tern <i>Sterna hirundo</i> [A194] Arctic Tern <i>Sterna paradisaea</i></p> <p>NPWS (2018) <i>Conservation objectives for Dalkey Islands SPA [004172]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 6.6km east of the proposed development site</p>
<p>Wicklow Mountains SPA [004040]</p> <p>[A098] Merlin <i>Falco columbarius</i> [A103] Peregrine <i>Falco peregrinus</i></p> <p>NPWS (2018) <i>Conservation objectives for Wicklow Mountains SPA [004040]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 8.1km south-west of the proposed development site</p>
<p>North Bull Island SPA [004006]</p> <p>[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A048] Shelduck <i>Tadorna tadorna</i> [A052] Teal <i>Anas crecca</i> [A054] Pintail <i>Anas acuta</i> [A056] Shoveler <i>Anas clypeata</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A140] Golden Plover <i>Pluvialis apricaria</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A143] Knot <i>Calidris canutus</i> [A144] Sanderling <i>Calidris alba</i> [A149] Dunlin <i>Calidris alpina</i> [A156] Black-tailed Godwit <i>Limosa limosa</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A160] Curlew <i>Numenius arquata</i> [A162] Redshank <i>Tringa totanus</i> [A169] Turnstone <i>Arenaria interpres</i> [A179] Black-headed Gull <i>Croicocephalus ridibundus</i> [A999] Wetlands & Waterbirds</p> <p>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.</p>	<p>The proposed development lies c. 8.7km north-east of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>Howth Head Coast SPA [004113]</p> <p>[A188] Kittiwake (<i>Rissa tridactyla</i>)</p> <p>NPWS (2018) <i>Conservation objectives for Howth Head Coast SPA [004113]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 13km north-east of the proposed development site</p>
<p>Baldoyle Bay SPA [004016]</p> <p>[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i></p> <p>[A048] Shelduck <i>Tadorna tadorna</i></p> <p>[A137] Ringed Plover <i>Charadrius hiaticula</i></p> <p>[A140] Golden Plover <i>Pluvialis apricaria</i></p> <p>[A141] Grey Plover <i>Pluvialis squatarola</i></p> <p>[A157] Bar-tailed Godwit <i>Limosa lapponica</i></p> <p>[A999] Wetland and Waterbirds</p> <p>NPWS (2013) <i>Conservation Objectives: Baldoyle Bay SPA 004016. Version 1</i>. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 13.4km north-east of the proposed development site</p>
<p>Ireland's Eye SPA [004117]</p> <p>A017 Cormorant <i>Phalacrocorax carbo</i></p> <p>A184 Herring Gull <i>Larus argentatus</i></p> <p>A188 Kittiwake <i>Rissa tridactyla</i></p> <p>A199 Guillemot <i>Uria aalge</i></p> <p>A200 Razorbill <i>Alca torda</i></p> <p>NPWS (2018) <i>Conservation objectives for Ireland's Eye SPA [004117]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 16.2km north-east of the proposed development site</p>