



Appropriate Assessment Screening Report
for a Proposed Data Centre, Grange Castle South Business Park,
Clondalkin, Dublin 22.

UBC Properties LLC

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1 Introduction

This report, which contains information required for the competent authority (in this instance South Dublin County Council) 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 site is located in Grange Castle Business Park South, Co. Dublin (Central Grid Reference O 03206 30881). The proposed development consists of the demolition of an existing two-storey farmhouse and associated buildings and the construction of 3 no. two-storey data centres and associated ancillary development that will have a gross floor area of 80,269sqm on an overall site of 16.5 hectares.

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, 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, 2019).

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 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 18th December 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

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.

- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.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
- The Environmental Impact Assessment Report (Marston Consulting, 2020) accompanying this application

2.4 Consultations

The National Parks and Wildlife Service was contacted on 15th January 2020 and a response was received on 2nd April 2020. No recommendations were made in relation to Appropriate Assessment.

2.5 Baseline Surveys

This section describes the ecological surveys carried out to inform the assessment of likely significant effects on European sites. A range of ecological baseline surveys were carried out on the proposed development site by Scott Cawley Ltd. in 2019. Relevant habitat surveys which assessed hydrological connectivity between the proposed development site and Dublin Bay were carried out on 28th July and 3rd December 2019. Wintering bird surveys were carried out on a fortnightly basis between September and December 2019, the dates the surveys were undertaken are as follows: 26th September; 9th October; 23rd October; 8th November; 19th November; and 3rd December.

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. geological, 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 will consist of the demolition of an existing two storey farmhouse and associated farm buildings and the construction of 3 no. two storey data centres (Buildings A, B and C) and associated ancillary development that will have a gross floor area of 80,269sqm on an overall site of 16.5 hectares. It is proposed that construction work will begin in late 2020 and all phases of the development will be completed in 2028.

Each of the three data storage facilities will include data halls, associated electrical and mechanical plant rooms, loading bays, maintenance and storage spaces, office administration areas, and plant at roof level as well as a separate house generator for each facility that will provide emergency power to the admin and ancillary spaces. Each data storage facility will also include a diesel tank and a refuelling area to serve the proposed emergency generators.

Foul waters for the development will outfall to the existing foul network and will ultimately be treated at Ringsend Wastewater Treatment Plant. The population equivalent (P.E.) for this development is 150. Effluent from water-based cooling systems will also drain to the foul sewer. All storm water generated on site will be retained and released into the Baldonnel Stream at a controlled rate of 2l/sec/Ha or the natural

greenfield runoff rate, whichever is greater. There are 4 no. attenuation storage areas proposed for this development. The storm water drainage system will take water runoff from hardstanding locations, roofs/ paths & roads and outfall into the attenuation areas via oil separators. Prior to entering attenuation areas, storm water will be directed into 'forebays' which will allow any detritus material to be removed from the water and will increase the water quality prior to disposal.

The landscape plan accompanying this application proposes heavy landscaping throughout and particularly to the north, south and west of the overall site. The landscaping will be completed as phase 1 of this development and will be in place prior to the construction of Building B. The landscape plan incorporates a range of ecological enhancement measures. Extensive native tree planting is proposed throughout the site to serve as screening from the surrounding roads and to enhance biodiversity. Native wildflower meadows and sections of native woodland are also proposed for incorporation within the development. A wetland area and several attenuation ponds will be created within the proposed development site. The wetland area has been designed to promote biodiversity within the proposed development site. It will have shallow sloping areas and be planted with native wetland species. The Baldonnel Stream will be enhanced with riparian planting and connected to the surrounding landscape.

3.2 Overview of the Receiving Environment

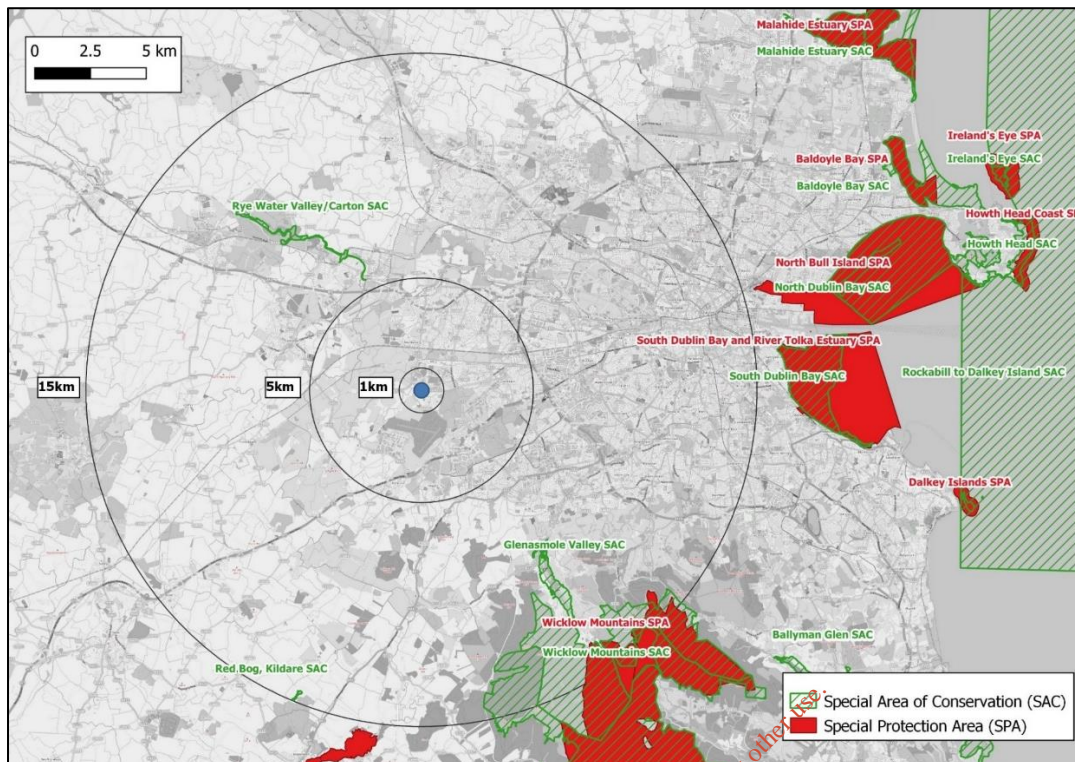
3.2.1 European sites

There are no European sites within the proposed development boundary. The nearest European site to the proposed development is the Rye Water Valley/Cartron SAC; c. 5.2km north-west. A tributary of the Griffeen River flows east-west through the proposed development site and connects it to European sites in Dublin Bay via the surface water network c. 15.5km to the east. The following European sites are located in Dublin Bay: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

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.

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Figure 1 European sites in the vicinity of the proposed development



3.2.2 Habitats

The proposed development is located within Grange Castle South Business Park and surrounding lands are comprised largely of industrial developments and agricultural land. There is a tributary of the Griffeen River running across the northern portion of the site, this stream is classified as a depositing lowland river. The majority of the proposed development site is comprised of improved agricultural grassland which is no longer managed and is dominated by a range of common grass and forb species. Other habitats of ecological value on the lands include hedgerow, treeline and drainage ditch habitat. There are some habitats of low ecological value on the proposed development site such as buildings and artificial surfaces, recolonising bare ground, spoil and bare ground and flower beds and borders/ amenity grassland.

3.2.3 Flora and Fauna Species

The National Biodiversity Data Centre (NBDC) database search returned no records of any Annex II plant species within 2km of the proposed development site. One record of an Annex IV species for which European sites are designated was returned from the database search; otter *Lutra lutra*.

An otter was recorded on the proposed development site during a winter bird survey on 8th November 2019 after a period of heavy rain. Kingfisher *Alcedo atthis*, an Annex I bird species was also recorded within the stream on the proposed development site on several occasions.

A flock of 150 lapwing *Vanellus vanellus* was recorded feeding on the proposed development site on 14th January 2020.

The site walkover surveys confirmed that one non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended was present on the lands; Spanish bluebell *Hyacinthoides hispanica*.

3.2.4 Hydrology

The Baldonnell stream, a tributary of the Griffeen River runs along the northern boundary of the proposed development site from east to west. This stream has been heavily modified in recent years to allow the construction of the new Nangor Road and it enters a culvert and joins the Griffeen River, adjacent to the

north-west of the proposed development site. The River Griffeen flows in a northerly direction before entering the River Liffey c. 4.3km north which flows into Dublin Bay c. 15.5km east.

The Griffeen river has a Water Framework Directive (WFD) status of 'good' and a WFD risk status of 'at risk'. The River Liffey has a WFD status of 'good' where the Griffeen joins which decreases to 'moderate' as it flows closer to Dublin Bay. The Liffey has a WFD risk status of 'at risk'. Dublin Bay has a WFD status of 'good' and a WFD risk status of 'at risk'.

3.2.5 Hydrogeology

The proposed development site is underlain by the Dublin groundwater body which is described as 'poorly productive bedrock'. The groundwater body has a WFD status of 'good' and a WFD risk status of 'not at risk'. Results of ground investigations show that groundwater is present below the proposed development site at a depth of between 2m and 2.5m.

3.2.6 Soils & Geology

Site investigations concluded that there is no evidence of contaminated soil present on the proposed development site.

3.2.7 Air Quality

As outlined in the Air and Climate chapter (Chapter 10) of the Environmental Impact Assessment Report accompanying this application, there will be no perceptible air quality impacts as a result of the proposed development.

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 Zone of Influence (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 site. 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.

Some habitats on the proposed development site were considered to be suitable to support populations of fauna species linked with the QI/SCI populations of European sites.

The Baldonnel Stream on the proposed development site was found to support otter *Lutra lutra*, an Annex IV mammal species. The individual recorded on the proposed development site is not considered to be associated with the QI populations of any European site. The nearest SAC to the proposed development site for which otter has been designated is Wicklow Mountains SAC which is located c. 10km south-east. While otter territories can range up to 20km, there is no connectivity of habitat between the proposed development site and the Wicklow Mountains SAC, therefore it is not considered likely that the otter recorded within the proposed development site is associated to an SAC population; and,

The Baldonnel Stream on the proposed development site was found to support kingfisher *Alcedo atthis*, an Annex I bird species. The individuals recorded were not considered to be associated with the SCI populations of any European site. Kingfisher territories can extend over 3-5km of river. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA which is located c. 36.5km

away, therefore it is not considered likely that the kingfisher recorded onsite is associated with an SPA population.

Ringed plover *Charadrius hiaticula*, a species for which South Dublin Bay and River Tolka Estuary SPA and Baldoyle Bay SPA have been designated was recorded on the proposed development site on 28th June 2019. An individual was recorded feeding on an area of spoil and bare ground habitat that had been cleared for archaeological surveys. There is no potential for significant impacts on European sites as a result of this development as a single individual was recorded during the summer months and the relevant European sites are designated for wintering populations of ringed plover. No ringed plover were recorded during winter bird surveys on the proposed development site.

A flock of 150 lapwing *Vanellus vanellus* were recorded feeding on the proposed development site on 14th January 2020. The nearest SPA for which lapwing are an SCI species is Boyne Estuary SPA located c. 45km north of the proposed development site. Due to the significant distance between the proposed development site and SPAs which are designated for lapwing, it is not considered that the flock recorded on the proposed development site are associated with any SPA population.

The proposed development will therefore not result in the loss of habitat that supports populations of wintering bird species, kingfisher or otter 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 and discharges from the proposed development will drain to the Baldonnel Stream via attenuation ponds located on the proposed development site. These waters will eventually drain to Dublin Bay via the Griffeen River and the River Liffey. 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

Surface water run-off and discharges from the proposed development will enter the downstream receiving environment via the Baldonnel Stream.

Full details of potential impacts on surface water quality are outlined in the Hydrology chapter (Chapter 9) of the Environmental Impact Assessment Report accompanying this application. In summary, considering the following, the proposed development will not have any measurable effects on water quality in Dublin Bay or the Irish Sea:

- the relatively low volume of any surface water run-off or discharge events relative to the receiving surface water and marine environments; and
- the level of mixing, dilution and dispersion of any surface water run-off/discharges in the receiving watercourses, Dublin Bay and the Irish Sea.

Therefore, 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 discharges.

Foul Water

Foul water, comprising sewage and industrial effluent (and some surface water run-off), from the Dublin area has historically been, and will continue to be, treated at Ringsend WWTP prior to discharge to Dublin Bay. The most recent information from Irish Water indicates that the plant is operating above its capacity of 1.64 million P.E. (Irish Water, 2017), with a current operational loading of c.2.2 million P.E. Ringsend WWTP operates under a discharge licence from the EPA (D0034-01) and must comply with the licence conditions.

Despite the capacity issues associated with the Ringsend WWTP, the Liffey Estuary Lower and Dublin Bay are currently classified by the EPA as being of 'Unpolluted' water quality status⁵. The Tolka Estuary is currently classified by the EPA as being "Potentially Eutrophic". The pollutant content of future surface water discharges to Dublin Bay is considered likely to decrease in the long-term for the following reasons:

- An Bord Pleanála granted planning permission for an upgrade to the Ringsend WWTP in April 2019⁶, which will increase capacity at the plant; and,
- Irish Water has submitted a planning application⁷ for the Greater Dublin Drainage (GDD) Project to An Bord Pleanála. The GDD will involve the construction of a new regional wastewater treatment facility in Clonsaugh in North County Dublin, the development of which will help alleviate capacity issues at Ringsend WWTP.

It is also an objective of the Greater Dublin Strategic Drainage Study, and all development plans within the catchment of Ringsend WWTP, to include Sustainable Urban Drainage Systems (SUDS) within new developments. The relevant development plans also have protective policies/objectives in place to protect water quality in the receiving freshwater and marine environments, and to implement the Water Framework Directive in achieving good water quality status for Dublin Bay.

Therefore, 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 foul water 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.

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 Rye Water/ Carton Valley SAC is designated for groundwater dependent habitats and is within the same groundwater body as the proposed development however, the proposed development site is

⁵ Transitional and Coastal Surface Water Quality data (2010-2012) accessed from the EPA Envision Mapviewer www.gis.epa.ie/Envision (accessed May 2019)

⁶ An Bord Pleanála Case Reference PL29S.301798 – *10-year permission for development of the Ringsend wastewater treatment plant upgrade project including a regional bio solids storage facility*, Available online at www.pleanala.ie/casenum/301798.htm. Accessed 5th June 2019.

⁷ An Bord Pleanála Case Reference PL06F.301908 - *Greater Dublin Drainage Project consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional bio solids storage facility*. Available online at www.pleanala.ie/casenum/301908.htm, Accessed 5th June 2019.

considered to be outside of the zone of influence of the Rye Water/ Carton Valley SAC for the following reasons:

- The SAC is approximately 5.2km from the proposed development site and is buffered from the development by significant infrastructure including the N4 motorway, industrial buildings in Grange Castle Business Park and residential developments; and,
- The presence of waterbodies between the proposed development site and the SAC including the River Liffey and the Grand Canal.

It is anticipated that groundwater will only be encountered during short-term excavations in the construction phase of the proposed development. There is no piling proposed as part of this development and building foundations will sit on the upper bedrock, above the groundwater table.

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

The proposed development site is hydrologically connected to European sites in Dublin Bay, however, it is not considered likely that Spanish bluebell could spread to coastal or marine habitats for which South Dublin Bay SAC or North Dublin Bay SAC are designated via the surface water network as a result of the proposed development.

There is therefore no risk of invasive species spreading to European sites as a result of the proposed development.

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 150m⁸. 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 Zol; the next nearest European site to the proposed development is c.5.2km away. The proposed development site was not found to support populations of any QI/SCI species associated with European sites (see Section 3.3.1 above). Therefore, the proposed development will not result in the disturbance/ displacement of the QI/SCI species of any European site

As the proposed development will not result in the disturbance/displacement of the QI/SCI 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 Zol, and the European sites at risk of likely significant effects are summarised in Table 1 below.

⁸ 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 Zol 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 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 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 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).

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>Rye Water Valley/ Carton SAC [001398] [7220] Petrifying springs with tufa formation (<i>Cratoneurion</i>)* [1014] Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> [1016] Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i></p> <p>NPWS (2018) <i>Conservation objectives for Rye Water Valley/Carton SAC [001398]</i>. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 5.2km north-west of the proposed development</p>
<p>Glenasmole Valley SAC [001209] [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6410] <i>Molinia</i> 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>Located c. 8.3km south-east of the proposed development</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. Version 1</i>. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Located c. 10km south-east of the proposed development</p>

<p>Red Bog, Kildare SAC [000397] [7140] Transition mires and quaking bogs</p> <p>NPWS (2019) <i>Conservation Objectives: Red Bog, Kildare SAC 000397</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 14.2km south of the proposed development</p>
<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>Located c. 15.6km east of the proposed development</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 maritimae</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 (2013) <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>Located c. 18.2km east of the proposed development</p>
<p>Malahide Estuary SAC [000205] [1140] Mudflats and sandflats not covered by seawater at low tide [1310] <i>Salicornia</i> and other annuals colonising mud and sand [1320] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [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)*</p> <p>NPWS (2013) <i>Conservation Objectives: Malahide Estuary SAC 000205</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 22.9km south-east of the proposed development</p>
<p>Baldoyle Bay SAC [000199] [1140] Mudflats and sandflats not covered by seawater at low tide [1310] <i>Salicornia</i> 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>Located c. 22.5km north-east of the proposed development</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>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>Located c. 24km north-east of the proposed development</p>
<p>Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocoena</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>Located c. 23.8km east of the proposed development</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>Located c. 27km north-east of the proposed development</p>
<p>Ballyman Glen SAC [000713] [7220] Petrifying springs with tufa formation (<i>Crotoneurion</i>) [7230] Alkaline fens</p> <p>NPWS (2019) <i>Conservation Objectives: Ballyman Glen SAC 000713</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 22.3km south-east of the proposed development</p>
<p>Special Protection Area (SPA)</p>	
<p>Wicklow Mountains SPA [004040] [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>Located c. 13.1km south-east of the proposed development</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></p>	<p>Located c. 15.2km east of the proposed development site</p>

<p>[A179] Black-headed Gull <i>Croicocephalus ridibundus</i> [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 (2015) <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>North Bull Island SPA [004006] [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 (2015) <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>Located c. 18.2km east of the proposed development site</p>
<p>Malahide Estuary SPA [004025] [A005] Great Crested Grebe <i>Podiceps cristatus</i> [A046] Brent Goose <i>Branta bernicla hrota</i> [A048] Shelduck <i>Tadorna tadorna</i> [A054] Pintail <i>Anas acuta</i> [A067] Goldeneye <i>Bucephala clangula</i> [A069] Red-breasted Merganser <i>Mergus serrator</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> [A149] Dunlin <i>Calidris alpina alpina</i> [A156] Black-tailed Godwit <i>Limosa limosa</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A162] Redshank <i>Tringa totanus</i></p>	<p>Located c. 22.9km north-east of the proposed development</p>

<p>[A999] Wetlands</p> <p>NPWS (2013) <i>Conservation Objectives: Malahide Estuary SPA 004025</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Baldoyle Bay SPA [004016]</p> <p>[A046] Brent Goose <i>Branta bernicla hrota</i> [A048] Shelduck <i>Tadorna tadorna</i> [A137] Ringed Plover <i>Charadrius hiaticula</i> [A140] Golden Plover <i>Pluvialis apricaria</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A999] Wetlands</p> <p>NPWS (2013) <i>Conservation Objectives: Baldoyle Bay SPA 004016</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 23km north-east of the proposed development</p>
<p>Ireland's Eye SPA [004117]</p> <p>[A017] Cormorant <i>Phalacrocorax carbo</i> [A184] Herring Gull <i>Larus argentatus</i> [A188] Kittiwake <i>Rissa tridactyla</i> [A199] Guillemot <i>Uria aalge</i> [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>Located c. 26.7km north-east of the proposed development</p>
<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>Located c. 26.6km north-east of the proposed development</p>