PROVISION OF INFORMATION REGARDING APPROPRIATE ASSESSMENT SCREENING

PROPOSED DATA CENTRE,

GRANGE CASTLE, CO. DUBLIN

CYRUS ONE

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1 Introduction

The information in this report forms part of, and should be read in conjunction with the documentation accompanying the application for planning permission for a proposed data centre located on lands adjacent to Baldonnel Road and Grange Castle South Access Road, Grange Castle Business Park South, Co Dublin.

This report which contains information required for the competent authority (in this instance South Dublin County Council) to undertake a screening exercise for Appropriate Assessment (AA), was prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on and assesses the potential for the proposed development to significantly affect Natura 2000 Sites (hereafter "European Sites"[1]).

It is necessary that the proposal has regard to Article 6 of the *Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (as amended) (hereafter "the Habitats Directive"). This is transposed in Ireland primarily by *the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011)* (hereafter the Birds and Habitats Regulations) and Section 177U of the Planning and Development (Amendment) Act, 2010 as amended.

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. In accordance with the legislation and national guidance, the competent authority issues an AA Screening Determination which will set out their decision and the reasons for it.

Following the preparation of this screening statement it may be objectively concluded that there is no likelihood of any significant effects on any European Sites arising from the proposed development, either alone or in combination with other plans or projects. Therefore it is our view that an Appropriate Assessment is not required in this instance. The information in the tables below provide a summary of the information gathered for this screening exercise and the conclusions made.

2 Methodology

This Screening Statement for Appropriate Assessment was prepared with regard to the following guidance documents, where 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 Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory

[1] Natura 2000 Sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II. 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 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 candidate Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.

- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (EC Environment Directorate-General, updated April 2015); hereafter referred to as MN2000.
- *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence.* Opinion of the European Commission (European Commission, January 2007).
- *Communication from the Commission on the precautionary principle.* European Commission (2000b).

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if Appropriate Assessment is required, documented screening is required. Screening identifies the likely effects on European Sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects.

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 would be no requirement to undertake Appropriate Assessment.

However, even if screening makes a finding of no significant effects, and therefore concludes that Appropriate Assessment is not required, these findings must be clearly documented in order to provide transparency of decision-making, and to ensure the application of the '*precautionary principle*'[2].

Screening for Appropriate Assessment involves the following:

- Determining whether a project or plan is directly connected with or necessary to the conservation management of any European Sites[3];
- Describing the details of the project/plan proposals and other plans or projects that may cumulatively affect any European sites (see Table 1);
- Describing the characteristics of relevant European Sites (Table 2); and,
- Assessing the likelihood and significance of effects on relevant European Sites (see Table 2).

The information that was collected to allow the competent authority to screen the proposal was based on a desktop study and informed by field surveys carried out for previous phases of development. Information relied upon included the following information sources, which included maps, ecological and water quality data:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie;
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie;
- Online data available on European Sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie;
- Information on land-use zoning from the online mapping of the Department of the Environment, Community and Local Government http://www.myplan.ie/en/index.html;
- Information on water quality in the area available from www.epa.ie;

[2] One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Declaration. Principle #15 declaration notes:

"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

[3] In this instance the proposed development is not directly connected with or necessary to the conservation management of any European Sites.

- Information on the Eastern River Basin District from www.wfdireland.ie;
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie;
- Information on the location, nature and design of the proposed development supplied by the applicant's design team;
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2013a & 2013b);
- Information on the conservation status of birds in Ireland (Colhoun & Cummins, 2014).

The following planning and policy documents were relevant to the subject lands, in particular with regard to the assessment of other plans and projects with potential for cumulative effects:

- *National Biodiversity Action Plan 2017 – 2021* (Department of Culture, Heritage and the Gaeltacht, 2017)*;*
- *South Dublin County Development Plan 2016 – 2022* (South Dublin County Council, 2016);
- *South Dublin County Heritage Plan 2010 – 2015;* and,
- *Eastern River Basin District, River Basin Management Plan 2009-2015.*

Table 1 Overview of the Proposed Development and its Receiving Environment	
Brief Site Description	The proposed development site is located in Grange Castle Business Park South, Co. Dublin and is adjacent to Baldonnel Road along the western and southern periphery and Grange Castle South Access Road to the northern periphery of the site. The proposed site is centred on grid reference O 02997 30648. The site includes three dwellings and their associated outbuildings and gardens, a large grass field, previously under agricultural management and currently largely occupied by archaeological investigations, and a smaller field heavily grazed by horses. The southern area of the site contains a number of boundary treelines while to the north and west a fenceline marks the field boundary. The subject lands area zoned '*to provide for enterprise and employment related uses'* under the South Dublin County Development Plan 2016-2022, zoning which also encompasses lands immediately surrounding the site, some of which have been or are currently under development and others to the south and west remain in agricultural use.
Features of the Surrounding Environment	The desktop study found no records of any species or habitats for which European sites listed in Table 2 are designated within the subject lands or environs. Black-headed Gull (*Larus ribidundus*) was the only species (for which European Sites listed in Table 2 are designated) recorded within 2km of the proposed development site[4] (Bird Atlas 2007 – 2011). The proposed development site is located within the Liffey and Dublin Bay catchment and River Liffey sub-catchment. According to the EPA Envision Map Viewer, the Milltown stream emerges close to the proposed development site on the far side of the adjacent road Grange Castle South Access Road and converges with the River Griffeen *c*. 520m downstream to the north of the proposed development site. The drainage ditch located in the east of the site and culverted under Grange Castle South Access Road outfalls to the Milltown stream and consequently River Griffeen. The River Griffeen converges with the River Liffey *c*. 5.5km downstream of the proposed development site. The River Liffey discharges into a complex of marine and intertidal European Sites in Dublin Bay. According to EPA online Envision Maps, the water quality of the surface, transitional and coastal water is as follows: • The River Liffey is classified as of 'Good' water quality status *c.* 5.5km downstream of the proposed site; • The Upper Liffey Estuary is classified as 'Eutrophic' transitional water; • The Lower Liffey Estuary is classified as 'Unpolluted' transitional water; and, • Dublin Bay is classified as 'Unpolluted' coastal water. The Liffey is classified as "at risk of not achieving good status" under the Water Framework Directive (WFD) risk scoring system. The groundwater body at the proposed development site is within the '*Dublin Urban'* ground waterbody and is described as '*Poorly productive bedrock*' and is '*Expected to achieve good status*'. According to the GSI Map Viewer, the level of vulnerability to groundwater contamination

[4] According to NBDC online data www.biodiversity.ie accessed 27th March 2018.

Table 1 Overview of the Proposed Development and its Receiving Environment	
	from human activities in the immediate area is deemed to be '*Extreme'* and the site is located on an area of *"rock at or near the surface or karst"*. It is also described as '*Locally Important Aquifer – Bedrock which is moderately productive only in local zones*'. Foul effluent generated from the proposed development will be discharged to the existing public foul sewer on Grange Castle South Access Road and will be treated at Ringsend Wastewater Treatment Works (WWTW) prior to discharge into Dublin Bay. Surface water will runoff will be treated by the proposed SuDS before discharging to the existing public surface water drainage system on Grange Castle South Access Road which ultimately discharges into the River Liffey and leads to Dublin Bay. According to the EPA Envision Map Viewer Dublin Bay's coastal waters are "Unpolluted". Under the "Trophic Status Assessment Scheme" classification of the EPA, "Unpolluted" means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present (EPA, 2015). The most recently available water quality data for the Irish Sea indicates that it is of '*Unpolluted*' status.
Description of Proposed Development	Full details of the proposed development are provided in the applicant's planning documentation. In brief, the proposed development comprises: • Construction of a two-storey data centre server facility of 31,785sqm that will be separated into four main data halls over two floors, service space; and two no. two storey loading bays to the east and west; and with a three storey office block of 2,882sqm integrated along its western façade; • 32 no. generators located at ground floor level, with eight within each of four compounds to the northern side of the data centre; • 32 no. acoustically attenuated chillers to be located on the upper level plant gantries; with eight within each of four compounds to the northern side of the data centre; and • A single storey 110kV electricity substation with associated transformer compound (4,720sqm) and building (125sqm); • Permission is also sought for all site development works including updated infrastructure to service the development; including 70 no. car parking spaces plus cycle parking on a part greenfield site, and the site of three existing residential properties of Erganagh, Kent Cottage, and Weston Lodge, Baldonnel Road, Dublin 22. No works are proposed to Kent Cottage and Weston Lodge as part of this application; and • Demolition of existing dwelling known as Erganagh, Baldonnel Road, Dublin 22. A new private foul sewer network will carry foul effluent generated from the proposed development to the existing public foul sewer network on Grange Castle South Access Road from where it will ultimately be discharged to Ringsend WWTW and treated prior to discharge into Dublin Bay. The Population Equivalent (P.E.) of the proposed development is expected to be 92. Surface water run-off arising from the proposed development will drain to a new private surface water sewer system and will be treated by the proposed SuDS measures before discharging to the existing public surface water sewer network on Grange Castle South Access Road. Prior

Table 1 Overview of the Proposed Development and its Receiving Environment	
	to discharge from the site, surface water will be collected in one of two attenuation ponds and will pass through one of three petrol interceptors before entering the public drainage network. These SuDS measures will ensure no untreated water is discharged from the site. The proposed duration of programme of works including the permitted development is expected to be *c*. 14-18 months. During this period best practice guidance will be applied to protect the receiving hydrological environment.
Other existing or proposed plans or projects nearby which may lead to cumulative effects on European sites.	**Existing habitat loss pressures** The subject lands do not physically overlap with any European Sites. The nearest European Site is 5.6km to the northwest and is not hydrologically linked to the proposed development site. This greenfield site largely comprises of improved grassland, treelines in the east, and hard standing and existing buildings, none of which are habitats listed under Annex I of the Habitats Directive. These habitats are not indirectly connected with any habitats within European Sites (*e.g.* by groundwater). No mobile fauna species for which nearby European Sites are designated are known (or are likely) to use the habitats within the subject lands. There is therefore no potential for cumulative effects relating to habitat loss or direct impacts on species. **Existing pressures on water quality within European Sites in proximity to the site** Several intertidal habitats for which European Sites in Dublin Bay are designated are failing to meet favourable conservation status. For some of these, water pollution is considered to be a threat ranked as being of "*high importance*"[5] (NPWS, 2013a). *Pressures on European sites in Kildare & Dublin Bay from surface waters* There is potential for '*in-combination*' effects of proposed plans and projects within the *South Dublin County Council Development Plan 2016 – 2022, Dublin City Development Plan 2016-2022*, *Dún Laoghaire-Rathdown County Development Plan 2016-2022*, *Fingal Development Plan 2017-2023* and other county-level land use plans which can influence conditions in Dublin Bay via rivers and other surface water features. Dublin Bay is of '*Unpolluted*' water quality status and the pollutant content of future surface water discharges to the Bay is considered likely to be decreased in the long-term. This is because it is an objective of the Greater Dublin Strategic Drainage Study, and all development plans within the catchment of Ringsend WWTW to include Sustainable Urban Drainage Systems in new development. Together these objectives are considered likely to reduce pressures on designated marine and intertidal species and habitats in Dublin Bay. The site lies within 5.6km of the Rye Water Valley/Carton SAC which is designated for Qualifying interests which are directly associated with the calcium rich groundwater of the site (7220 Petrifying springs with tufa formation (*Cratoneurion*)*[6]) and indirectly associated (*Vertigo* snail species, which require calcium rich habitats). According to the GSI Groundwater Data Viewer[7] the proposed site also lies on the groundwater

[5] For example, "tidal mudflats and sandflats" was of "Inadequate" conservation status. This habitat was threatened by water pollution and was a reason for designation of North Dublin Bay SAC, and South Dublin Bay SAC. Under 'wetlands', the habitat was also a Special Conservation Interest of the South Dublin Bay and River Tolka Estuary SPA, and North Dublin Bay SPA.

[6] * = A priority Habitat

[7] http://spatial.dcenr.gov.ie/GeologicalSurvey/Groundwater/index.html Accessed 24/05/2016

Table 1	Overview of the Proposed Development and its Receiving Environment
	aquifer and *Dinantian Upper Impure Limestone* bedrock that is also associated with this SAC site. Although, the subject lands are located *c.* 5.6km from the SAC and both converge with the River Liffey, the proposed site lies within a different river sub-basin to the SAC, so linkages between the two locations are deemed extremely unlikely. There are a number of proposed developments nearby[8] this site which are considered to have the potential to produce '*in combination*' effects to water quality within the Kildare and Dublin areas. However, as the site lies a significant distance downstream of the Rye Water Valley/Carton SAC and >15km upstream of North Dublin Bay and South Dublin Bay it is anticipated that the likelihood of this development having a significant impact on any European Sites is negligible, even in combination with those surrounding the site. This is due to the location of the subject lands and the proposed SuDS (as described above in the development description) which will attenuate and treat surface water runoff on site prior to discharge. There may be a risk that construction-related contamination (e.g. through surface run off) could flow overland into the local drainage network. However, such overflows are deemed unlikely to result in significant effects on water quality in the Rye Water Valley/Carton SAC (which lies *c.* 5.6km upstream), or within Dublin Bay. Any pollution events will only occur during the construction period over a short period of time (i.e. anticipated to be *c.* 14-18 months); are likely to be infrequent (i.e. limited to storm flows) where best practice guidelines for construction sites have been adhered to; and, due to the distance of the proposed development site from European Sites, any pollution events that occur are likely to result in small concentrations of contaminants reaching Dublin Bay following, dilution, adsorption and mixing in the local drainage network and the Dublin Bay waters. As such, the risk of significant adverse impacts upon any of the European Sites within 15km of this development is considered to be negligible. *Pressures on European sites in Kildare and Dublin Bay from effluent* The Greater Dublin Area including the subject lands and satellite towns in counties bordering Dublin, fall within the catchment of the Ringsend Waste Water Treatment Works (WWTW). During operation, foul effluent generated from the proposed development will be carried by the public sewerage network to the Ringsend WWTW for treatment prior to discharge to Dublin Bay. Foul water comprising sewage and industrial effluent (and some surface water run-off) from the Dublin area has historically, and will continue to be treated at Ringsend WWTW prior to discharge to Dublin Bay. Ringsend WWTW has historically operated at or above capacity, with a contributing residential population in the order of 1.1 million and a total load (including non-domestic load) of 1.7 million P.E. on average, with significant fluctuations from day to day. In 2016 the plant was non-compliant with several parameters as set under the EPA discharge licence. Any existing or proposed projects discharging to the plant have the potential to act cumulatively to reduce water quality in Dublin Bay, affecting European Sites therein. Despite

[8] SDCC Planning Maps Online http://sdublincoco.maps.arcgis.com/apps/Solutions/s2.html?appid=b83a115566bd43648a4b9fa3bb3a4cae

Table 1 Overview of the Proposed Development and its Receiving Environment	
	Ringsend WWTW historically operating at or above capacity, no significant effects from discharge arising from the proposed development are predicted due to the following: • There was no proven link between WWTW discharges and nutrient enrichment of sediments in Dublin Bay based on analyses of dissolved and particulate Nitrogen signatures (Wilson and Jackson, 2011); and, • Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005). *Conclusion for potential in-combination effects from surface and/or foul waters* It is our professional opinion that there will be no likelihood of significant effects on any European Sites during the construction or operation of the proposed development, in combination with other plans or projects. This judgement was reached on the basis that: • The coastal waters in Dublin Bay are classed as '*Unpolluted*' by the EPA; • It is an objective of all development plans within the catchment of Ringsend WWTW to include Sustainable Urban Drainage Systems for all new development; • In the unlikely event of a pollution event during construction, this would not be of such a magnitude that it would have a significant adverse effect on water quality in Dublin Bay; • There is a commitment by Irish Water to upgrade the plant to meet EU standards and expand the facility to deal with the equivalent of 400,000 people's waste (*i.e.* the equivalent expansion as previously planned by Dublin City Council). This is likely to maintain the "*Unpolluted*" water quality status of coastal waters despite potential pressures from future development; • There was no proven link between WWTW discharges and nutrient enrichment of sediments in Dublin Bay based on analyses of dissolved and particulate Nitrogen signatures (Wilson and Jackson, 2011); and, • Enriched water entering Dublin bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of the bay water (O'Higgins and Wilson, 2005).

European sites within 1km, 5km and 15km of the proposed development site are shown in Figure 1 overleaf.

Table 2 Analysis of European sites within 15km.

Site name and code	Distance from Proposed Development (approximate)	Reasons for designation[9] (*= Priority Habitat) (Sourced from NPWS online Conservation Objectives Generic Version 3.0 for SACs and 4.0 for SPAs, unless otherwise stated).	Relevant source-pathway-receptor links between proposed development and European site? No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[10] exists).
Special Areas of Conservation			
Rye Valley/Carton SAC (001398)	Located *c.* 5.6km northwest	**Conservation Objectives Version 4.0 (13/02/15)** **Annex I Habitats:** • Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Annex II Species:** • Narrow-mouthed Whorl Snail *Vertigo angustior* [1014] • Desmoulin's Whorl Snail *Vertigo moulinsiana* [1016]	No, there is no linkage between the proposed development and the European site. The SAC site lies *c.* 5.6km northwest of the proposed site and is within a separate river sub basin. The subject lands are not connected to the European site by semi-natural habitats or by water features.
Glenasmole Valley SAC (001209)	Located *c.* 8.6km southeast	**Conservation Objectives Generic Version 4.0 (13/02/15)** **Annex I Habitats:** • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Petrifying springs with tufa formation (Cratoneurion) [7220]	No, there is no linkage between the proposed development and the European site, due to distance and the absence of a hydrological or any other pathway between the proposed development and the European Site.

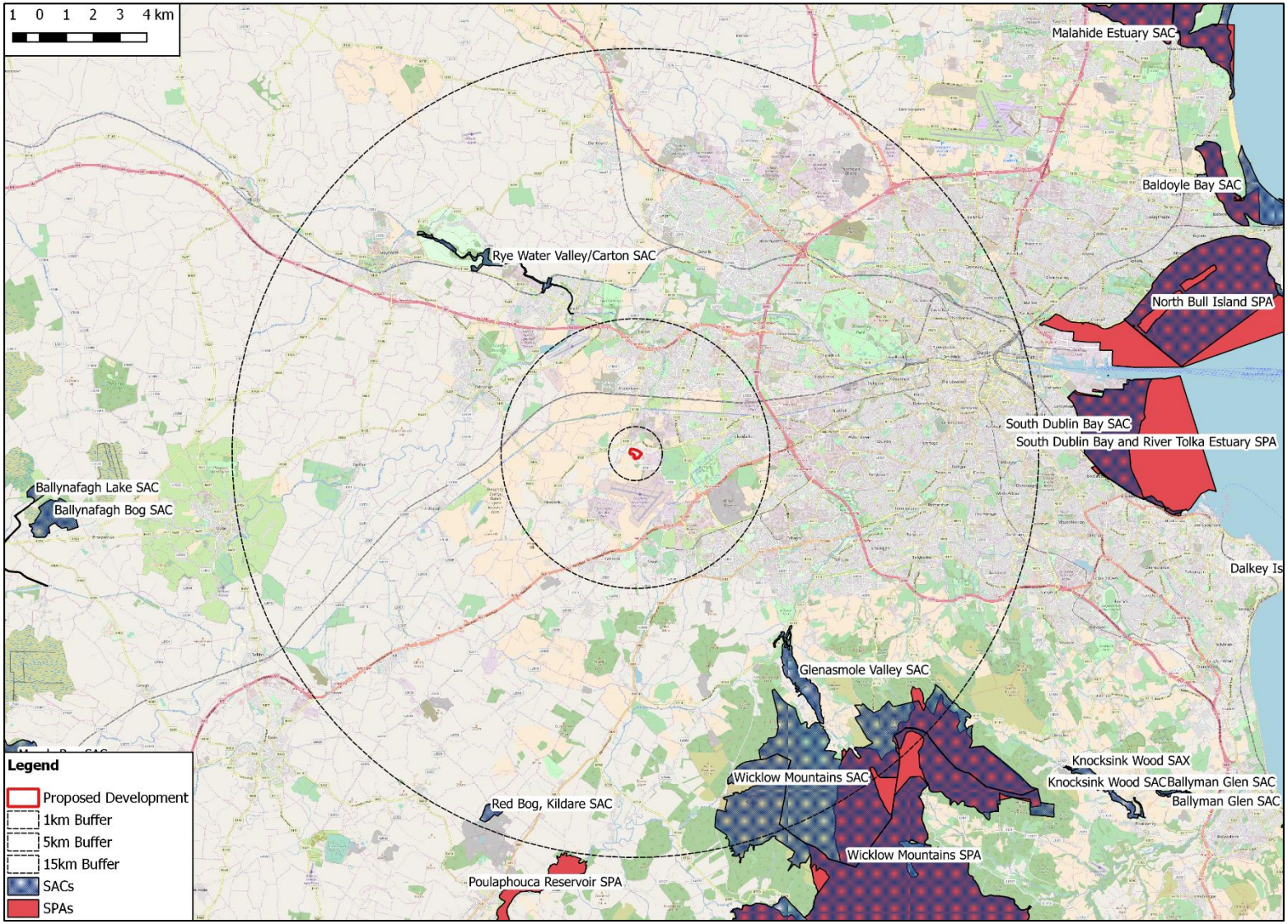
[9] "Qualifying Interests" for SACs and "Special Conservation Interests" for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from www.npws.ie.

[10] For significant effects to arise, there must be a risk enabled by having a 'source' (*e.g.* construction works at a proposed development site), a 'receptor' (*e.g.* a SAC), and a pathway between the source and the receptor (*e.g.* a watercourse connecting a proposed development site to a SAC). The identification of a pathway does not automatically mean significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (*e.g.* duration of construction works), the characteristics of the pathway (*e.g.* water quality status of watercourse receiving run-off from construction) and the characteristics of the receptor (*e.g.* the ecology including conservation status of the SAC reason for designation). When expert judgment determines, that significant effects are likely to arise, both the pathway, and the European site are considered "Relevant", and an Appropriate Assessment is triggered.

Table 2 Analysis of European sites within 15km.			
Wicklow Mountains SAC (002122)	Located *c.* 10.2km southeast	**Conservation Objectives Generic Version 4.0 (13/02/15)** **Annex I Habitats:** • Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Natural dystrophic lakes and ponds [3160] • Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] • Blanket bogs (* if active bog) [7130] • Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] • Calcareous rocky slopes with chasmophytic vegetation [8210] • Siliceous rocky slopes with chasmophytic vegetation [8220] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] **Annex II Species:** • *Lutra lutra* (Otter) [1355]	No, there is no linkage between the proposed development and the European site, due to distance and the absence of a hydrological or any other pathway between the proposed development and the European Site.
Red Bog Kildare SAC (000397)	Located *c.* 14km southwest	**Conservation Objectives Generic Version 5.0 (15/08/2016)** **Annex I Habitats:** • Transition mires and quaking bog [7140]	No, there is no linkage between the proposed development and the European site, due to distance and the absence of a hydrological or any other pathway between the proposed development and the European Site.
Special Protection Areas (SPA)			

Table 2 Analysis of European sites within 15km.			
Wicklow Mountains SPA (004040)	Located *c.* 13.4km southwest	**Conservation Objectives Generic Version 4.0 (13/02/15)** • Merlin *Falco columbarius* [A098] • Peregrine *Falco peregrinus* [A103]	No, there is no linkage between the proposed development and the European site, due to distance and the absence of a hydrological or any other pathway between the proposed development and the European Site.

Figure 1. European sites within 15km of the proposed development



3 Conclusions of the Screening Assessment

Following an examination, analysis and evaluation of the relevant information, including in particular, the nature of the proposed works and their potential relationship with European sites, 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 possibility of any significant effects on all European sites. The judgement has been reached for the reasons outlined below:

Surface Water

No significant adverse effects are possible due to the following:

- On-site treatment of surface water run-off during the construction phase;
- The temporary nature of any discharges related to construction of the site;
- The distance between the site and Dublin Bay and potential for mixing of pollution in the drainage network;
- The known potential for waters in Dublin Bay to rapidly mix and assimilate pollutants (Wilson and Jackson, 2011); and,

Foul Water

Foul waters generated on site during operation will be treated at Ringsend WWTP before being discharged into Dublin Bay. No significant adverse effects are possible due to the following:

- The Ringsend WWTP extension is likely to be completed in the short-medium term to ensure statutory compliance with the Water Framework Directive. This is likely to maintain the "Unpolluted" water quality status of coastal waters despite potential pressures from future development;
- There was no proven link between WWTP discharges and nutrient enrichment of sediments in Dublin Bay based on analyses of dissolved and particulate Nitrogen signatures (Wilson and Jackson, 2011);
- Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005); and,
- Marine modelling for Ringsend WWTP indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe (Dowly & Bedri 2007).

For these reasons, it is the professional opinion of the authors of this report that the application for planning permission for the proposed development does not require an Appropriate Assessment.

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

a) 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;

b) 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.

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