



Appropriate Assessment Screening

Kilcarbery Substation and Transmission Lines

24/11/2021



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Neo Environmental Ltd	
<p>Head Office - Glasgow: Wright Business Centre, 1 Lonmay Road, Glasgow. G33 4EL T 0141 773 6262 E: info@neo-environmental.co.uk</p>	
<p>Warrington Office: Cinnamon House, Crab Lane, Warrington, WA2 0XP. T: 01925 661 716 E: info@neo-environmental.co.uk</p>	<p>Rugby Office: Valiant Suites, Lumonics House, Valley Drive, Swift Valley, Rugby, Warwickshire, CV21 1TQ. T: 01788 297012 E: info@neo-environmental.co.uk</p>
<p>Ireland Office: Johnstown Business Centre, Johnstown House, Naas, Co. Kildare. T: 00 353 (0)45 844250 E: info@neo-environmental.ie</p>	<p>Northern Ireland Office: 83-85 Bridge Street, Ballymena, Co. Antrim BT43 5EN T: 0282 565 04 13 E: info@neo-environmental.co.uk</p>

Prepared For:


Ramboll

Prepared By:

Dara Dunlop BSc (Hons)

Louis Maloney BSc (Hons), MSc



	Name	Date
Edited By:	Dara Dunlop	24/11/2021
Checked By:	Louis Maloney	24/11/2021
	Name	Signature
Approved By	Paul Neary	

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1. EXECUTIVE SUMMARY

- 1.1. A Stage 1 Appropriate Assessment has been undertaken for a proposed substation and transmission lines on lands within Profile Park, Clondalkin, Dublin. The aim of the Appropriate Assessment Screening is to assess the potential for connectivity between the Proposed Development and any Natura 2000 site.
- 1.2. Within the Zone of Influence (“ZOI”) surrounding the Site, there are ten Natura 2000 designated sites, comprising six Special Areas of Conservation (“SACs”) and four Special Protection Areas (“SPAs”).
- 1.3. The existing surface water infrastructure comprises two pipes, ultimately discharging into the Griffen River north of the site, this discharges into the River Liffey, approximately 7km from the Application Site. The River Liffey stretches approximately 30km before entering into the Dublin Bay. Therefore, it is considered that there is a very limited hydrological connection between the Application Site and the designated sites within the Dublin Bay (South Dublin Bay and River Tolka SPA, North Bull Island SPA, South Dublin Bay SAC and North Dublin Bay SAC) via surface water drainage.
- 1.4. To provide a current baseline for the Application Site, an ecological site visit was undertaken in August 2021 by Dylan Donoghue BSc (Hons). During this site visit habitats were assessed for their potential to support protected/notable species. No evidence of any qualifying species was observed within or adjacent to the Application Site during the site visit and habitats on site are considered to be sub-optimal.
- 1.5. It was found that no ecological or ornithological connectivity exists between the Proposed Development and any Natura 2000 Site within the ZOI.
- 1.6. There are no watercourses within the Application Site, and therefore the possibility of contamination reaching the river is very low. Additionally, the distance from the Natura 2000 Sites will result in the dissolution of contamination. It is considered that there will be no contamination of the designated sites within the Dublin Bay as a result of the Proposed Development.
- 1.7. This Appropriate Assessment Screening has concluded that the Proposed Development is **not likely to have a significant effect** on any Natura 2000 designated site. Therefore, the next stage of the Appropriate Assessment (Natura Impact Statement (“NIS”)) is not required.

2. INTRODUCTION

Background

- 2.1. Neo Environmental Ltd has been appointed by Ramboll on behalf of Vantage Data Centers Dub 11 Limited (the “Applicant”) to undertake an Appropriate Assessment (AA) Screening for a proposed 110kV GIS Substation and associated compound and site infrastructure (the “Proposed Development”) located on lands within Profile Park, Clondalkin, Dublin (the “Application Site”).
- 2.2. The aim of this screening document is to determine whether a Natura Impact Statement (NIS) is required for the Proposed Development.

Development Description

- 2.3. The project will support the power demand for the Data Center site to the north. The project includes the Kilcarbery 110kV GIS Substation, 3 no. transformer bays, and associated compound and site infrastructure.

Site Description

- 2.4. The site is located in Profile Park, centred around Irish grid reference O 03647 30493.
- 2.5. The site is an irregular parcel of land, extending to approximately 3.19 ha in area and is occupied by agricultural fields. Falcon Avenue runs along the northern boundary of the site.
- 2.6. The site’s immediate boundaries are defined by the following:
 - Falcon Avenue to the north, beyond which is undeveloped land, proposed to be developed into a Data Center;
 - Agricultural fields to the east, beyond which is Grange Castle Golf Club;
 - Barnakyle Substation to the southwest and Digital Reality Profile Park to the southeast, beyond which lies Casement Aerodrome; and
 - A data center development on agricultural fields to the west and Castlebaggot Substation.
- 2.7. The wider context of the site is characterised by a mix of industrial and agricultural development with a fragmented mixture of commercial, industrial and residential uses.

Ecological Site Visit

- 2.1. A Fossit habitat survey was undertaken in August 2021 by Dylan Donoghue BSc (Hons) which identified the following habitats:
- Buildings and artificial surfaces (BL3)
 - Recolonising bare ground (ED3)
 - Improved Agricultural Grassland (GA1)
 - Treelines (WL2)
- 2.2. No evidence of protected species was noted on site during this survey.

Statement of Authority

- 2.3. The assessment has been conducted by an ecologist registered with the Chartered Institute of Ecology and Environmental Management (CIEEM). All work has been carried out in line with the relevant professional guidance, namely CIEEM's Guidelines for Report Writing¹ and the Environment, Heritage and Local Government Guidance on Appropriate Assessments².
- 2.4. Louis Maloney has four years of professional ecological experience. This includes terrestrial habitat and marine ecology surveys, and the management of Environmental Impact Assessment ("EIA") and Natura Impact Statement ("NIS") reports in Ireland. He holds a BSc in Marine Science from the National University of Ireland, and an MSc in Conservation Behaviour – Marine and Terrestrial Science.
- 2.5. Dara Dunlop is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with circa 3 years' experience in the ecology sector. This includes working for an ecological consultancy, undertaking a range of protected species surveys and extended phase 1 habitat surveys for residential schemes and land management of designated sites. Dara has co-authored a number of reports for various developments including Ecological Impact Assessments and Protected Species Reports.
- 2.6. Dylan Donoghue is an Ecologist in the process of receiving membership with the Chartered Institute of Ecology and Environmental management (CIEEM). Dylan has 2 years' experience in the Ecology Sector, including working for an ecological consultancy, undertaking bird and bat surveys.

¹ CIEEM (2017) Guidelines for Ecological Report Writing. Available at www.cieem.net

² Environment, Heritage and Local Government (2009) Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities. Available at www.npws.ie

3. LEGISLATION & GUIDANCE

REQUIREMENT FOR APPROPRIATE ASSESSMENT

- 3.1. The requirement for Appropriate Assessment of plans or projects originates from Article 6 (3) and (4) of European Union (EU) Habitats Directive. This is implemented in Ireland through the European Communities (Natural Habitats) Regulations of 1997, and the European Communities (Birds and Natural Habitats) Regulations 2011 – 2015 (as amended) and in particular, in relation to the planning consent process, in Part XAB of the Planning and Development Act 2000 – 2015 (as amended) where Section 177U sets out the requirements for Screening for AA.
- 3.2. This Appropriate Assessment Screening Report has been prepared in accordance with the above and the European Commission Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (European Commission 2002), the European Commission Guidance Managing Natura 2000 Sites (European Commission 2000) and with reference to the Department of the Environment and Heritage and Local Government guidance on Appropriate Assessment of plans and projects in Ireland (DEHLG 2009) and Natura 2000 (European Commission 2010).
- 3.3. The EU Habitats Directive (92/43/EEC) provides the framework for legal protection for habitats and species of European importance. The directive provides the legislative means to establish a network of sites (known as the Natura 2000 network) throughout the EU with the objective of conserving habitats and species deemed to be of International Importance. These sites include Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive (formally known as the Conservation of Wild Birds Directive 79/409/EEC).
- 3.4. The wording of Article 6 (3) of the Directive is as follows:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”
- 3.5. The relevant wording of Section 177U (4) of the Planning and Development Act is as follows:

“The competent authority shall determine that an appropriate assessment of a [...] 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 a European site. As outlined in the European Commission document 'Assessment of plans and projects significantly affecting Natura 2000 sites', any project that is not directly connected with or necessary to the management of a Natura 2000 site, but likely to have a significant effect upon it, either individually or cumulatively will be subject to Appropriate Assessment.

Where significant effects are uncertain or unknown at the screening stage an AA will be required, due to the need to apply the precautionary principle. Conversely, if a project will have impacts on a site, but these impacts will clearly not affect or undermine those conservation objectives, it is not considered that it will have a significant effect on the site concerned.

As part of the assessment consideration is afforded to 'in combination' effects with other plans or projects on the integrity of Natura 2000 sites. Where adverse impacts are identified, mitigation measures can be proposed that would avoid reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to proceed to Stage 3 'Alternative Solutions'.

- 3.6. If the assessment cannot exclude significant impacts either alone or in combination with other plans or projects, then the process must proceed to Stage 2.
- 3.7. The following legislation was used to inform the Article 6 assessments within this report:
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, 1992³;
 - Council Directive 2009/147/EC on the Conservation of Wild Birds, 2009⁴;
 - The Planning and Development Acts 2000 (as amended)⁵.
 - NPWS, The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments, Unpublished Report, 2013⁶.

GUIDANCE

- 3.8. The following guidance has been compiled and reviewed to inform the Article 6 assessments within this report:

³ European Commission (2001) 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. Available at: http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

⁴ Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

⁵ Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147>

⁶ Available at: <http://www.irishstatutebook.ie/eli/2017/act/20/enacted/en/html>

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, 2009 (as amended)⁷;
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10⁸ & PSSP 2/10, 2008⁹;
- 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, 2001¹⁰;
- CIEEM, Guidelines for Ecological Report Writing, 2017¹¹.

⁷ Available at: https://www.npws.ie/sites/default/files/publications/pdf/Article_17_Print_Vol_3_report_species_v1_1_0.pdf

⁸ Available at: https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

⁹ Available at: <https://www.npws.ie/sites/default/files/general/Circular%20NPW1-10%20%26%20PSSP2-10%20Final.pdf>

¹⁰ Available at: <https://www.npws.ie/sites/default/files/general/circular-npws-02-08.pdf>

¹¹ CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.

4. ASSESSMENT METHODOLOGY

STAGES OF APPROPRIATE ASSESSMENT

4.1. The Appropriate Assessment process comprises of four stages in order to identify whether proposals have the potential to impact significantly upon Natura 2000 designations. The stages are as follows:

- **Stage 1 Screening:** To determine the likelihood of significant impacts.
- **Stage 2 Natura Impact Statement:** To assess the impact of proposals on the integrity of the Natura 2000 site, considering the conservation objectives of the site and its ecological structure and function.
- **Stage 3 Assessment of alternatives:** Where significant impacts are anticipated despite mitigation measures, the proposal should progress to Stage 3 or no longer proceed.
- **Stage 4 Assessment where no alternative exists and where adverse impacts remain:** The final stage involves examining whether there are imperative reasons of overriding public interest for allowing the proposal to adversely impact upon a Natura 2000 site.

Source – Pathway - Receptor Model

4.2. The ‘source-pathway-receptor’ conceptual model is a tool used for environmental assessment. For an effect to occur, all elements of this model must be linked. The removal or absence of one of the elements of the model results in there being no likelihood for the effect in question to occur. For example:

- Source(s), e.g. blasting;
- Pathway(s) e.g. vibration and noise; and,
- Receptor(s) e.g. disturbance of nesting birds.

4.3. For an AA or NIS, this model is focused solely on the selection features of Natura 2000 sites as defined by National Parks and Wildlife Services (NPWS) and referenced within this report.

4.4. The Proposed Development may have the potential to result in a number of impacts, which could potentially affect the selection features of Natura 2000 sites. The analysis of these effects, using scientific knowledge and professional judgement, leads to the identification of a “zone of influence” for each effect (i.e., the distance at which the impact of the Proposed

Development could have potential effects, using professional judgement and published guidance).

STUDY ZONE IDENTIFICATION

- 4.5. The 'Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities'¹² states that the AA Screening should include the following:

"Any Natura 2000 sites within or adjacent to the plan or project area.

Any Natura 2000 sites within the likely zone of impact of the plan or project.

A distance of 15km is currently recommended in the case of plans and derives from UK guidance (Scott Wilson et. al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects.

Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment."

- 4.6. It is considered that the Zone of Influence (ZOI) in connection with the Natura 2000 designated sites and their qualifying features will extend to a 15km radius. While this would be greater were the Proposed Development to have any hydrological influence beyond 15km, no such influence has been identified.

DESK STUDY

- 4.7. Sources of material that were consulted as part of the desk study for the purposes of the assessment are as follows:

- National Parks & Wildlife Service (NPWS) natural heritage database for Natura 2000 sites within the 15km ZOI of the Application Site¹³;

¹² Department for Environment, Heritage and Local Government (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities.

Available at: http://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

¹³ Environment, Heritage and Local Government (2009) Appropriate Assessment of Plan and Projects in Ireland. Available at: https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

- NPWS site synopses, Natura 2000 Data Form and conservation objectives relating to each site and aerial images.

IMPACT ASSESSMENT PROCESS

4.8. The assessment process involves:

- Identifying and characterising Natura 2000 sites identified within the Zone of Influence surrounding the Application Site, and their qualifying features, and addressing whether any of these designated sites have any connectivity with the Proposed Development. If any site is found to have no connectivity, then these designated sites will be 'scoped out' or not considered further;
- Assessing whether there will be any significant impacts to any of the Natura 2000 site, in regard to changes that result from the construction, operation and decommissioning phases of a project. Qualifying features of a Natura 2000 site that lie outside of the ZOI and not subject to any impacts from the Proposed Development then these will be 'scoped out' or not considered further;
- Identifying any significant impacts on the integrity of the Natura 2000 site from the development and 'in combination' with any other development within 5km;
- Identifying the need for the Appropriate Assessment process to move to Stage 2: 'Natura Impact Statement or, if there are no impacts from the development, that the development may proceed.

5. BASELINE

- 5.1. In accordance with National Parks & Wildlife Service (NPWS) guidance, this stage of the AA has identified all Natura 2000 sites located within 15km of the development boundary.
- 5.2. Effects can depend more on the nature of impacts, sensitivity of receptors and causal linkage, rather than actual distances. The assessment below considers connectivity, either ecological, ornithological or hydrological, that may exist between the Proposed Development and the designated sites.
- 5.3. The potential effects associated with the Proposed Development have been identified. Those Natura 2000 sites which will not be significantly affected will be ruled out of any further assessment.

IDENTIFICATION OF NATURA 2000 SITES

- 5.4. There are ten Natura 2000 designated sites located within the Zone of Influence of the Application Site, comprising six Special Areas of Conservation (SACs), and four Special Protection Areas (SPAs). The qualifying features of each have been outlined within **Table 5-1** below.
- 5.5. **Figure 1, Appendix A** of this report details the location of these sites in relation to the Application Site.

Table 5-1: Natura 2000 sites within 15km, or with a hydrological connection

Site Code	Site Name	Qualifying Features	Distance (km), Direction	Potential Connectivity with the Proposed Development Site
SAC				
001398	Rye Water Valley/Carlton SAC	Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]	5.9km northwest	No connection

001209	Glenasmole Valley SAC	<p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]</p> <p>Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</p>	7.9km southeast	No connection
002122	Wicklow Mountains SAC	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Alpine and Boreal heaths [4060]</p> <p><i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i> [6130]</p> <p>Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p><i>Lutra lutra</i> (Otter) [1355]</p>	9.6km southeast	No connection
000397	Red Bog, Kildare SAC	Transition mires and quaking bogs [7140]	13.9km southwest	No connection

000210	South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	15.45km east	Hydrological connection
000206	North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]	18.15km northeast	Hydrological connection
SPA				
004040	Wicklow Mountains SPA	Merlin (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103]	12.7km southeast	No connection
004063	Poulaphouca Reservoir SPA	Greylag Goose (<i>Anser anser</i>) [A043] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]	14.9km southwest	No connection
004024	South Dublin Bay and River Tolka SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	15.13km northeast	Hydrological connection

		<p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p> <p>Wetland and Waterbirds [A999]</p>		
004006	North Bull Island SPA	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p>	18.15km northeast	Hydrological connection

		Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]		
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- 5.6. As shown in **Table 5-1**, the Application Site lacks ornithological connectivity with any of the detailed SPAs and lacks ecological connectivity with any of the SACs.
- 5.7. It is considered that the survey area is unlikely to support any of the Annex II species or assemblages listed above.
- 5.8. The habitats of the Application Site are not suitable for supporting any mobile species associated with the SACs listed above. Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail (associated with Rye Water Valley/Carton SAC) are restricted to wetland habitats. There are no watercourses within the Application Site suitable for supporting otter.
- 5.9. The habitats are not suitable for supporting the qualifying bird species of the SPAs listed above. Merlin and Peregrine are associated with the upland habitats of the Wicklow Mountains SPA. Black-headed gulls (associated with Poulaphouca Reservoir SPA and North Bull Island SPA) nest in wetland habitats, but are not confined to wetlands, and will forage in domestic waste and fields of crop. As there is no food waste or crop associated within the Application Site it is considered there is no potential for gull species to scavenge within the site boundary. Greylag goose prefer coastal habitats or wetland habitats for foraging and/or breeding.
- 5.10. The existing surface water infrastructure comprises two pipes, ultimately discharging into the Griffen River north of the site, this discharges into the River Liffey, approximately 7km from the Application Site. The River Liffey stretches approximately 30km before entering into the Dublin Bay. Therefore, it is considered that there is a very limited hydrological connection between the Application Site and the designated sites within the Dublin Bay (South Dublin Bay and River Tolka SPA, North Bull Island SPA, South Dublin Bay SAC and North Dublin Bay SAC) through the movement of surface waters. These Natura 2000 sites have not been scoped out and are discussed in detail in section 6.
- 5.11. Given that no connectivity (potential pathway for impact) exists between the Application Site and 6 of the above listed Natura 2000 designated sites (see **Table 5-1**) within 15km of the Application Site, these sites have been scoped out of the impact assessment. No impacts upon these sites will result from the Proposed Development.

6. ASSESSMENT OF LIKELY EFFECTS

IMPACT ASSESSMENT

- 6.1. This section discusses and evaluates the likely impacts of the Proposed Development affecting the Natura 2000 sites within the Zone of Influence (ZOI) of the Application Site (i.e. where there is some ecological, ornithological or hydrological connection between the Application Site and the Natura 2000 site).
- 6.2. As outlined within **Table 5-1** above, the Application Site has hydrological connectivity (albeit limited) with the South Dublin Bay and River Tolka SPA, North Bull Island SPA, South Dublin Bay SAC and North Dublin Bay SAC, offering a pathway for impacts through the movement of contaminated waters.
- 6.3. Aquatic systems and the species/habitats which are dependent on these systems are sensitive to pollution and contamination of surface waters. Pollution can result from any of the following entering a body of surface or groundwater:
- Poisonous, noxious or polluting matter;
 - Waste matter (including silt, cement, concrete, oil, petroleum spirit, chemicals, solvents, sewage and other polluting matter);
 - Other harmful activities detrimentally affecting the status of a waterbody.
- 6.4. **Table 6-1** below details common water pollutants and their effect on the aquatic environment and standard Best Practice Pollution Measures. (This table has been extracted from Ciria guidance¹⁴).

¹⁴ Ciria (2015) Environmental Good Practice on Site guide, fourth edition

Table 6-1: Common water pollutants and their effects on the aquatic environment and standard prevention measures

Common Water Pollutants	Adverse Effect on Aquatic Environment	Standard Best Practice Pollution Prevention Measures
Silt	Reduces water quality, clogs fish gills, covers aquatic plants, impacts aquatic invertebrates, leads to a reduction in prey for species and leads to degradation of habitat	<p><u>Pollution Prevention</u></p> <p>Hydrocarbons, greases and hydraulic fluids will be stored in a secure compound area;</p> <p>All plant machinery will be properly serviced and maintained thereby reducing risk of spillage or leakage;</p> <p>All waste produced from construction will be collected in skips with the construction site kept tidy at all times;</p>
Bentonite (very fine silt)	Reduces water quality, clogs fish gills, covers aquatic plants, impacts aquatic invertebrates, leads to a reduction in prey for species and leads to degradation of habitat	<p>Excavated soil will be stored on site or removed by a licensed waste disposal unit;</p> <p>All materials and substances used for construction will be stored in a secure compound and all chemicals to be stored in secure containers to avoid potential contamination;</p>
Cement or concrete wash water (highly alkaline)	Changes the chemical balance, is toxic to fish and other wildlife. This can lead to direct impacts for aquatic species (including otter), or indirect through loss of prey resources	<p>Location of spill kit to be known by all construction workers and implemented in the event of spillage or leakage.</p> <p><u>Waste Management</u></p>
Detergent	Removes dissolved oxygen, can be toxic to fish and other wildlife present within the aquatic environment	<p>Skips are to be used for site waste/debris at all times and collected regularly or when full;</p> <p>All hydrocarbons and fluids are to be collected in leak-proof containers and removed from site for disposal or recycling;</p>

Hydrocarbons (e.g. oil, diesel)	Suffocates aquatic life, damaging to the wildlife (e.g. birds), and to water supplies including industrial abstractions	<p>All waste from construction is to be stored within the site confines and removed to a permitted waste facility.</p> <p><u>Environmental Monitoring</u></p> <p>Contractor to nominate member of staff as the environmental officer with the responsibility to ensure best practice measures are implemented and adhered to, with any incidents or non-compliance issues being reported to project team.</p>
Sewage	Reduces water quality, is toxic to aquatic wildlife, and damages water supplies	

South Dublin Bay and River Tolka Estuary SPA

6.5. As described within **Table 5-1**, The South Dublin Bay and River Tolka Estuary SPA is designated for its importance for the following Annex II species:

- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046];
- Oystercatcher (*Haematopus ostralegus*) [A130];
- Ringed Plover (*Charadrius hiaticula*) [A137];
- Grey Plover (*Pluvialis squatarola*) [A141];
- Knot (*Calidris canutus*) [A143];
- Sanderling (*Calidris alba*) [A144];
- Dunlin (*Calidris alpina*) [A149];
- Bar-tailed Godwit (*Limosa lapponica*) [A157];
- Redshank (*Tringa totanus*) [A162];
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179];
- Roseate Tern (*Sterna dougallii*) [A192];
- Common Tern (*Sterna hirundo*) [A193];

- Arctic Tern (*Sterna paradisaea*) [A194]; and
- Wetland and Waterbirds [A999].

Conservation Objectives for South Dublin Bay and River Tolka Estuary SPA

6.6. The main conservation objective¹⁵ of the South Dublin Bay and River Tolka Estuary SPA is to restore the favourable conservation status of habitats and species of community interest. The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Character of the South Dublin Bay and River Tolka Estuary SPA

6.7. **Table 6-2** below, identifies the percentage of the extent of various habitat types within the South Dublin Bay and River Tolka Estuary SPA.

Table 6-2: Habitats within South Dublin Bay and River Tolka Estuary SPA

Code	Habitats River Boyne and Blackwater SAC	Extent (%)
N01	Marine areas and sea inlets	40
N02	Tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins)	58
N04	Coastal sand dunes, Sand beaches, Machair	1
N05	Shingle, Sea cliffs, Islets	1

Assessment of Likely Impacts Affecting South Dublin Bay and River Tolka Estuary SPA

6.8. The South Dublin Bay and River Tolka Estuary SPA is located approximately 15km northeast but connectivity is over 30km downstream of the Application Site. The site has been designated for a number of important Annex II species of the E.U. Habitats Directive, as detailed within **Table 5-1** above. The SPA is comprised entirely of coastal, marine and estuarine habitats, and does not share any of the habitats as are found within the Application Site. It is considered highly unlikely that these species would be present on site.

¹⁵ NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

- 6.9. There are no watercourses on within the Application Site. Given the drainage measures in place at the site, and the large distance between the Application site and the SPA, the dilution factor will result in a **negligible** impact upon the SPA and its qualifying species.
- 6.10. There will be no significant contamination of water in the absence of mitigation. Notwithstanding this, during the construction phase, standard best practice measures will be adhered to.
- 6.11. Earthwork operations will be carried out such that surfaces, as they are being raised, shall be designed with adequate drainage, falls and profile to control run-off and prevent ponding and flowing. Correct management will ensure that there will be minimal inflow of shallow/perched groundwater into any excavation.
- 6.12. Care will be taken to ensure that exposed soil surfaces are stable to minimise erosion. All exposed soil surfaces will be within the main excavation site which limits the potential for any offsite impacts. No significant dewatering will be required during the construction phase which would result in the localised lowering of the water table. There may be localised pumping of surface run-off from the excavations (up to 3m) during and after heavy rainfall events to ensure that the trenches are kept relatively dry.
- 6.13. Therefore, **no significant effects** are predicted on qualifying species of South Dublin Bay and River Tolka Estuary SPA

SUMMARY OF POTENTIAL IMPACTS ON NATURA SITES WITHIN DUBLIN BAY

- 6.14. There is limited hydrological connectivity between the Proposed Development and Natura 2000 Sites within the Dublin Bay. Due to the drainage measures in place, and likely dispersion it is considered that potential effects are **negligible**. With best practice pollution measures in place it is considered that there is **no potential for significant effects**.
- 6.15. Potential impacts from the Proposed Development **will not be significant** or have a detrimental effect on the qualifying features of any Natura 2000 designated sites with a hydrological connection.

7. CUMULATIVE IMPACTS

- 7.1. As well as singular effects, cumulative effects need to be considered. Article 6 of the EU Habitats Directive and Regulation 15 of the European Communities (Natural Habitats) Regulations state that any plan or project that may (either alone or in combination with other plans or projects) significantly affect a Natura 2000 site should be the subject of an Appropriate Assessment.
- 7.2. Cumulative impacts can cause problems when proposals have a small impact on Natura 2000 sites. If other proposals have a small impact, the combined result can have a significant impact on the Natura site.
- 7.3. A search of the South Dublin County Council online planning portal was undertaken to identify any Projects or developments within 3km which could impact any ecological features, either alone or in combination with the Proposed Development. These developments are outlined in **Table 2-11** below.

Table 2-11: Key Developments within 3km of the Proposed Development

Planning Reference	Project Type	Distance and Direction	Planning Status	Date Granted
SD21A/0241	Demolition of the abandoned single storey dwelling and associated outbuilding (206sqm); construction of 2 two storey data centers with plant at roof level of each facility and associated ancillary development which will have a gross floor area of 40,589sq.m	50m north	Additional Information Request	26/10/2021
SD21A/0167	Construction of a gas fired power plant with an electrical output of up to 125MW with associated balance of plant, equipment and buildings.	50m east	Additional Information Request	19/08/2021
SD17A/0377	Revisions and alterations of the permitted development of a data processing facility under	50m southeast	Grant permission	15/12/2017

	<p>planning Ref: SD12A/0002 on a 3.85 hectare site. The revised application consists of alterations to the DUB14 (previously DUB12) data centre/warehouse structure, granted in the previous application. The alterations to the DUB14 (Previously DUB12) include: (i) 2 data halls 2137 sq.m (increase of 180sq.m), (ii) offices/reception 478sq.m (decrease of 190 sq.m), (iii) support space/staff facilities and internal plant with a floor area of 953sq.m (increase of 84sq.m), (iv) external plant of 1,777sq.m (footprint increase of 35sq.m).</p>			
SD21A/0186	<p>Construction of a 3 storey (part 4 storey) data centre known as 'DB8' to include data halls, electrical/plant rooms including internal generators, offices, lobbies, ancillary staff areas including break rooms and toilets, stores, stair/lift cores throughout and photovoltaic panels at roof level</p>	250m northeast	Additional Information Request	30/08/2021
SD20A/0121	<p>Construction of 3 two storey data centres with mezzanine floors at each level of each facility and associated ancillary development that will have a gross floor area of</p>	300m northwest	Granted	29/07/2020

	80,269sq.m on an overall site of 16.5hectares.			
VA06S.308585 (ABP ref)	Clutterland 110kV GIS Substation building and 2 underground single circuit transmission lines.	300m NW	Approve with conditions	07/05/2021
SD20A/0295	Amendments and modifications to the permitted data centre development granted under Reg. Ref. SD18A/0134 - ABP Ref. ABP-302813-18 and the temporary substation permission granted under SD19A/0300 , Demolition of the existing single storey house of 'Erganagh' and the construction of a two storey data centre and delivery bays with associated three store office block and services that will have a gross floor area of 35,426sq.m on an overall site of 9.2 hectares.	500m west	Grant permission & grant retention	16/03/2021
SD18A/0134	Demolition of the existing single storey house of 'Erganagh' and the construction of a two storey data centre and delivery bays with associated three storey office block and services that will have a gross floor area of 35,426sq.m on an overall site of 9.2 hectares.	>500m W	Grant Permission	24/09/2018
SD20A/0295 (amendment to SD18A/0134)	Amendments and modifications to the permitted data centre development granted under Reg. Ref.	>500m W	Grant Permission	16/03/2021

	SD18A/0134 - ABP Ref. ABP-302813-18 and the temporary substation permission granted under SD19A/0300			
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- 7.4. As the Proposed Development is situated within an industrial area, the majority of planning applications are for similar developments. Beyond 1km of the Application Site, many sites to the north and east are residential in nature, with industrial and military areas also noted to the south.
- 7.5. It is considered that there is no potential for significant effects as a result of the Kilcarbery Substation and Transmission Lines upon any Natura 2000 site.
- 7.6. The substation will supply the power for the proposed data center (planning application **SD21A/0241**) directly adjacent to the Proposed Development. It is considered that the both the substation and proposed data center is comprised of land which is of low ecological significance. A biodiversity management plan has been produced with data center planning application, it is considered that the enhancement measures proposed will result in net biodiversity gain. Given the distance (approximately 30km downstream) and dilution factors, it is not anticipated that the proposed data center would cause any impact to any designated site or its qualifying features.
- 7.7. It has therefore been concluded that the Proposed Development will give rise to **no likely significant cumulative effects** upon Natura 2000 designated sites in combination with any other development.

8. CONCLUSION

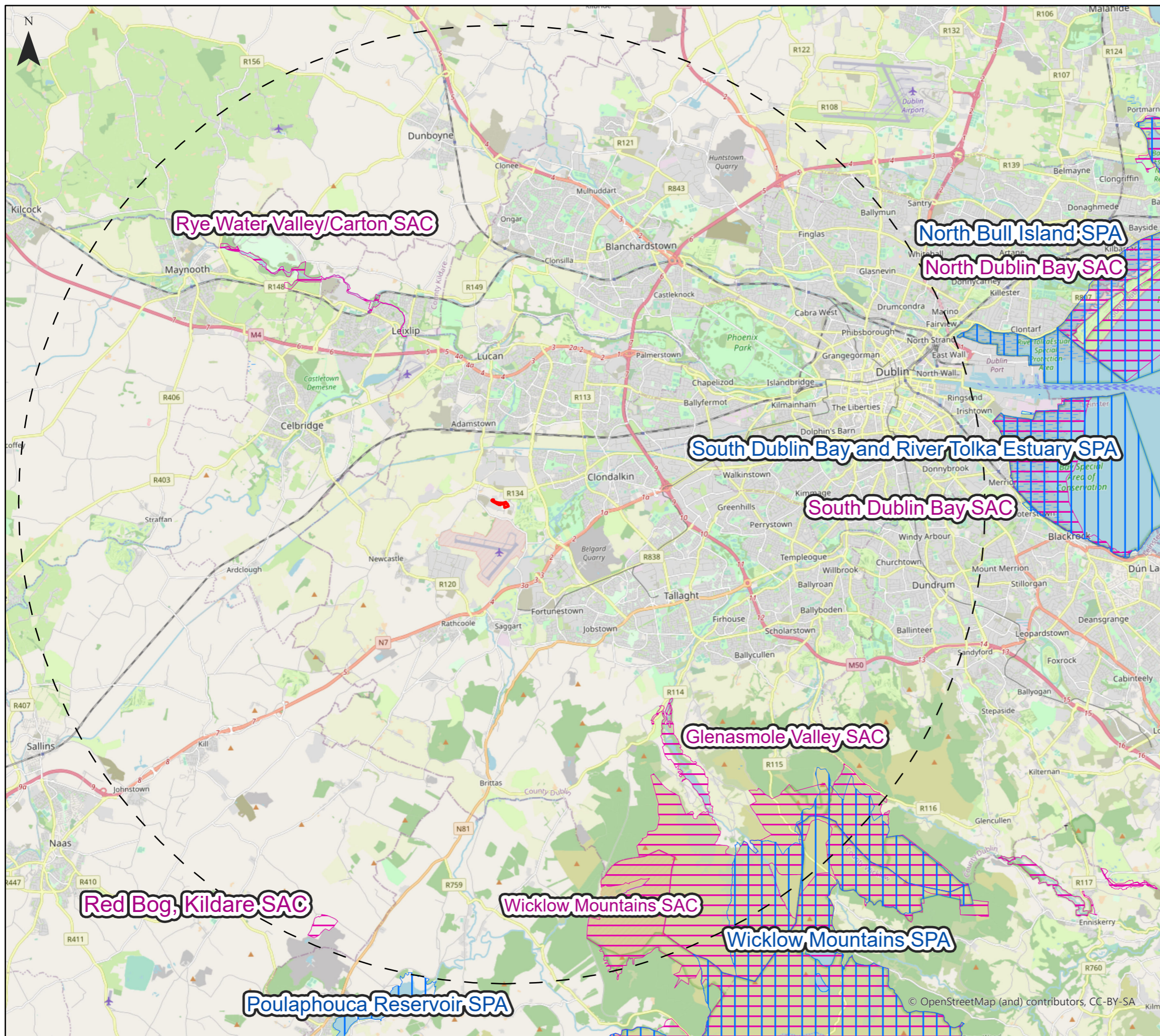
- 8.1. According to NPWS (2009), the Appropriate Assessment Stage 1: Screening exercise can result in one of three conditions:
- An Appropriate Assessment is not required i.e., where the plan/proposal is associated with the management of the site;
 - There is no potential for significant effects i.e., Appropriate Assessment is not required;
 - Significant effects are certain, likely or uncertain i.e., the project must either proceed to Stage 2: Appropriate Assessment or be rejected.
- 8.2. The Proposed Development was screened for likely significant adverse effects upon any designated sites within its Zone of Influence. There are ten designated sites, comprising six Special Areas of Conservation (SACs) and four Special Protection Areas (SPAs).
- 8.3. It was found that no ecological or ornithological connectivity exists between the Proposed Development and any Natura 2000 Site. It was found that there is limited hydrological connectivity between the Application Site and the designated sites within the Dublin Bay (South Dublin Bay and River Tolka SPA, North Bull Island SPA, South Dublin Bay SAC and North Dublin Bay SAC).
- 8.4. It has been concluded that the Proposed Development **will not lead to significant adverse impacts** upon any Natura 2000 sites. **No likely significant effect** is foreseen upon these Natura 2000 sites as a result of the proposals, either alone or in combination with any other development.
- 8.5. This screening report, based on the best available scientific information, finds that there is no reasonable scientific doubt that the development does not pose any risk of significant adverse effects on Natura 2000 sites, and that the development does not require progression to a Stage 2 AA.

9. APPENDICES

Appendix A

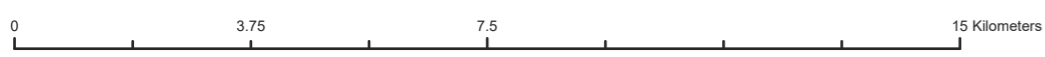
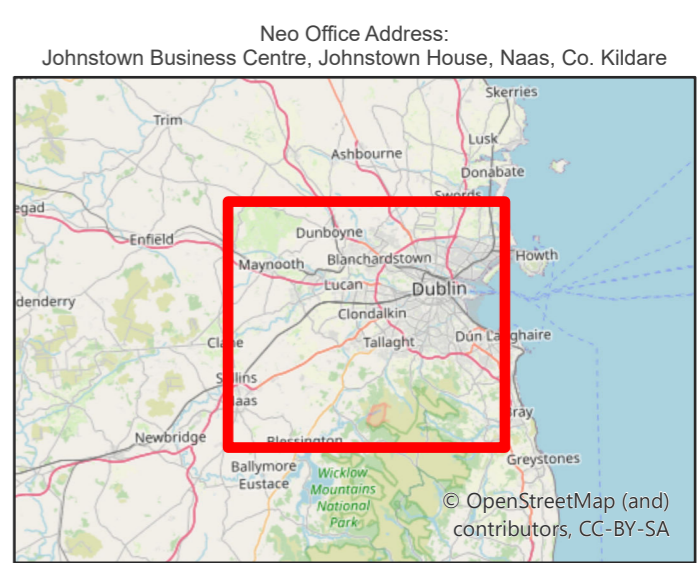
- Figure 1: Natura 2000 Designated Sites

Kilcarbery Substation and Transmission Lines Natura 2000 Sites Figure 1



Key

- Development Boundary
- 15km Study Area
- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)





GLASGOW - HEAD OFFICE

Wright Business Centre, 1 Lonmay Road, Glasgow G33 4EL
T: 0141 773 6262
www.neo-environmental.co.uk

N. IRELAND OFFICE

83-85 Bridge Street
Ballymena, Co. Antrim
Northern Ireland
BT43 5EN
T: 0282 565 04 13

IRELAND OFFICE

Johnstown Business Centre
Johnstown House, Naas
Co. Kildare
T: 00 353 (0)45 844250
E: info@neo-environmental.ie

RUGBY OFFICE

Valiant Office Suites
Lumonics House, Valley Drive,
Swift Valley, Rugby,
Warwickshire, CV21 1TQ
T: 01788 297012

WARRINGTON OFFICE

Cinnamon House, Cinnamon Park
Crab Lane, Fearnhead
Warrington
Cheshire
T: 01925 661 716