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EIA SCREENING FOR PROPOSED AMENDMENTS TO A PERMITTED SUBSTATION ON A SITE WITHIN THE TOWNLAND OF BALLYMAKAILY, WEST OF NEWCASTLE ROAD (R120), LUCAN, CO. DUBLIN,

Report Prepared For

EdgeConneX Ireland Limited

Report Prepared By

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Our Reference

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1. INTRODUCTION

On behalf of the Applicant, EdgeConneX Ireland Limited, AWN Consulting Limited (AWN) has prepared the following Environmental Impact Assessment (EIA) Screening Report to accompany application for amendments to the extant permission, an amendment application to the permitted electrical substation compound and structures permitted under Reg. Ref.: SD19A/0042 and ABP Ref.: 305948-19 located in Newcastle Road Lucan, County Dublin.

The proposed amendments will comprise the following:

- Amendment to the layout and extent of the permitted substation compound, to include an extension of the compound area to c. 0.77 hectares.
- Reorientation of the Gas Insulated Switchgear (GIS) substation building to a north-south orientation, and associated amendments to the building footprint, layout, and elevations, providing for a two storey building with a gross floor area (GFA) of c. 1,456 sq.m.
- Alterations to the permitted single storey Client Control Building to provide for the substitution of this structure with 5 no. single storey modular client control units, with a combined total GFA of c. 231 sq.m (GFA of c. 46.2 sq.m per module).
- Amendments to the permitted substation access arrangements (3 no. gated access points provided), transformers, security fencing (to be 2.6 metres high in place of the 2.4 metre fencing permitted), lighting, services, MV substation, parking, utility cabling, amendments to permitted landscaping and berms adjoining the substation compound, and associated and ancillary works.

The proposed development site is outlined in red on Figure 1.1.

The development is described in further detail in Section 2 below.

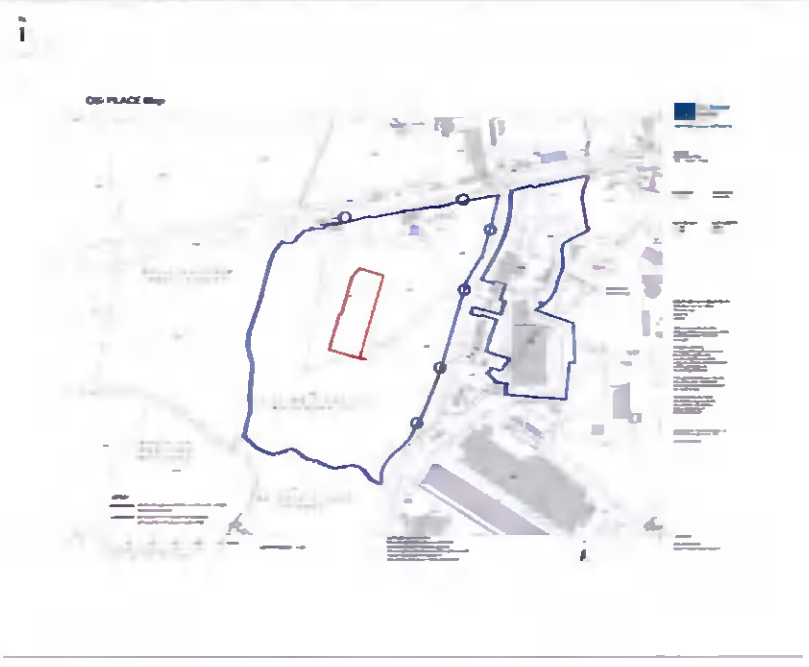

Figure 1-1 Proposed Development Site

The purpose of this report is twofold, to provide the information required under Schedule 7A to demonstrate the likely effects on the environment, having regard to the criteria set out in Schedule 7 of the Planning and Development Regulations 2001, as amended. This information will enable the Competent Authority to undertake a screening determination in respect of the need for an Environmental Impact Assessment Report (EIAR) for the proposed development. The second reason for this report is to document the studies undertaken by the Applicant, and the design team, which demonstrate there are no significant effects predicted as a result of the proposed development and the application can be determined without an EIAR having being submitted.

There is a mandatory requirement for an EIA Report to accompany a planning application for some types of development that meet or exceed the "thresholds". In addition to the mandatory requirement, there is a case-by-case assessment necessary for sub-threshold developments as they may be likely to have significant effects on the environment. If a sub-threshold development is determined to be likely to have significant effect on the environment, then an EIA Report will be required.

AWN Consulting, the design team, and specialist subconsultants have undertaken an assessment on the likelihood of significant effects on the environment from the proposed development. The assessment is documented in Section 3.0, 4.0. and 5.0 and covers each aspect of the environment in accordance with guidance including; Population and Human Health; Biodiversity; Land, Soils, Geology, Hydrogeology, and Hydrology; Air Quality and Climate; Noise and Vibration; Landscape and Visual Impact; Cultural Heritage, and Archaeology; Traffic and Transportation; Material Assets, and Waste.

1.1 EIA Screening Legislation and Guidance

The legislation and guidance listed below has informed this report and the method to EIA Screening:

- Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021)
- European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018;
- Environmental Impact Assessment of Projects – Guidance on Screening. (2017). European Commission.
- Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report. (2017) European Commission.
- Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licensing Systems – Key Issues Consultation Paper (2017:DoHPCLG)
- European Union Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. (August 2018) Department of Housing, Planning and Local Government.
- Guidelines on the Information to be contained in Environmental Impact Assessment Reports. (Draft, August 2017). Environment Protection Agency.
- Advice Notes for preparing Environmental Impact Statements. (Draft, September 2015). Environment Protection Agency
- Interpretation of definitions of project categories of Annex I and II of the EIA Directive. (2015) European Commission
- Planning and Development Act, 2000 (as amended)
- Planning and Development Regulations 2001 (as amended)

Using the above documentation, it has been possible to carry out a desktop EIA Screening using the best available guidance while operating within the applicable legislation. The national requirements to provide an EIA with a planning application is outlined in *Planning and Development Act 2000 as amended* (the Act) and *Planning and Development Regulations, 2001 as amended* (the Regulations). In addition to the national legalisation there are requirements set out in the EU Directive (as referenced above); the EU Directive has been transposed into Irish Legislation.

There is a mandatory requirement for an EIA Report to accompany a planning application for some types of projects which are equal to or exceeds a limit, quantity or "threshold" set for that class of development. The mandatory thresholds for an EIA Report are set out in Schedule 5 of the Regulations.

In addition to the mandatory requirement, there is a case-by-case assessment necessary for sub-threshold developments development which would be likely to have significant effects on the environment. In order to determine if a Project would be likely to have significant effects on the environment and if an EIA is required Schedule 7 of the Regulations sets out the relevant criteria to be considered by the Competent Authority.

Section 176A(2)(a) of the Act states that an application for screening for environmental impact assessment may be submitted to the Competent Authority. The scope of the information to be provided by the developer when an application for screening is made is set out in Section 176A(3) of the Act, Schedule 7A of the Regulations, and Annex IIA of the EU Directive.

In producing this report due regard has been paid to other EIA guidance including the European Union's 2017 EIA *Guidance on Screening*[1] and *Guidance on the preparation of the Environmental Impact Assessment Report*[2] as well as the published *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*[3].

1.2 Screening Methodology

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU and follows the format as per Section 3.2 of the Draft EPA Guidelines (August 2017)[4]. The potential for significant effects of the proposed Project has been considered against Schedule 7 of the *Planning and Development Regulations, 2001 as amended*[5].

The key steps to screen for an EIA is set out in Section 3.2 of the EPA Guidelines are as follows:

- Is the development a type that that requires EIA?
- Is it of a type that requires mandatory EIA?
- Is it above the specified threshold?
- Is it a type of project that could lead to effects? and/or
- Is it a sensitive location? and/or
- Could the effects be significant?

An assessment the points 1 to 3 above has been made by AWN against the relevant legislation and thresholds set out in Schedule 5 of the Regulations, this evaluation has been documented in Section 2.0.

In order to address points 4 to 6 above, an evaluation of the characteristics of the project, the sensitivity of the location of the proposed development, and the potential for significant impacts has been made with regard to Schedule 7 of the Regulations. Schedule 7 of the Regulations sets out the criteria for the Planning Authority to determine whether a development would or would not be likely to have significant effects on the environment. The criteria are broadly set out under the three main headings:

1) *Characteristics of proposed development (Report Section 3.0)*
   - a. *the size and design of the whole of the proposed development,*
   - b. *cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,*
   - c. *the nature of any associated demolition works,*
   - d. *the use of natural resources. in particular land. soil. water and biodiversity.*
   - e. *the production of waste,*
   - f. *pollution and nuisances,*
   - g. *the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and*
   - h. *the risks to human health (for example, due to water contamination or air pollution).*

2) *Location of proposed development (Report Section 4.0)*
   - a. *the existing and approved land use,*
   - b. *the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,*
   - c. *the absorption capacity of the natural environment. paying particular attention to the following areas:*
     - i. *wetlands, riparian areas, river mouths;*
     - ii. *coastal zones and the marine environment;*
     - iii. *mountain and forest areas;*
     - iv. *nature reserves and parks;*
     - v. *areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;*
     - vi. *areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;*
     - vii. *densely populated areas;*
     - viii. *landscapes and sites of historical. cultural or archaeological significance.*

3) *Types and Characteristics of Potential Impacts (Report Section 5.0)*

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—

- a. *the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),*
- b. *the nature of the impact,*
- c. *the transboundary nature of the impact,*
- d. *the intensity and complexity of the impact,*
- e. *the probability of the impact,*
- f. *the expected onset, duration, frequency and reversibility of the impact,*
- g. *the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and*

h. the possibility of effectively reducing the impact.

The Planning Authority must have regard to the Schedule 7 criteria in forming an opinion as to whether or not a development is likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location should be subject to EIA.

The information required to be submitted by the developer for the Planning Authority to make a determination on EIA Screening is set out in Schedule 7A of the Regulation, Section 176A(2)(a) of the Act, and Annex IIA of the EU Directive.

However, it is important to note that Schedule 7A states 'The compilation of the information at paragraphs 1 to 3 [of Schedule 7A] shall consider, where relevant, the criteria set out in Schedule 7.' The main body of this report (Sections 3.0, 4.0 and 5.0) will cover Schedule 7A fully, but it has been set out to present the information under the headings provided for in Schedule 7 in order to assist the Planning Authority in its screening assessment.

1.3 Contributors to the EIA Screening Report

The preparation and co-ordination of this screening report has been completed by AWN Consulting in conjunction with the project design team and developer:

Role	Contributor
Applicant	EdgeConnex Ireland Limited
Population and Human Health; Land Soils, Geology, Hydrogeology, and Hydrology; Air Quality and Climate; Noise and Vibration; Material Assets Landscape and Visual Impact Archaeology	AWN Consulting Limited
Biodiversity including Appropriate Assessment Screening	Scott Cawley
Planning	John Spain Associates
Electrical Contractor	H&MV
Architect	Henry J Lyons

Table 1-1 Project Team and Contributors to this Report

The various reports address a variety of environmental issues and assess the impact of the proposed development and demonstrate that subject to the various construction and design related mitigation measures recommended that the proposed development will not have a significant impact on the environment. This EIA Screening Report should be read in conjunction with the plans and particulars submitted with the planning application.

This EIA Screening Statement has been prepared by Catherine Keogan Smith BSc (Analytical Science), Post Graduate Diploma Renewable Energy Technology Systems with AWN Consulting Limited; Catherine is an Environmental Consultant in AWN Consulting with ongoing roles in impact assessment, licensing, environmental compliance, and project management. Catherine has over 20 years' experience in environmental compliance, environmental licensing, and urban planning. With experience working in the environmental consultancy, planning, and regulatory fields from Ireland, the UK, Europe, and Africa.

2. SCREENING EVALUATION

2.1 Is the Development A Project

The first step in screening is to examine whether the proposal is a *project* as understood by the EU Directive. For the purposes of the EU Directive, 'project' means:

- the execution of construction works or of other installations or schemes, or
- other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources.

The EPA Guidance (2017) states that if a proposed project is not of a type covered by the Directive, there is no statutory requirement for it to be subject to environmental impact assessment. In determining if the proposed project is of a type covered by the Directive it may be necessary to go beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it.

If any such parts or processes are significant and, in their own right, fall within a class of development covered by the Directive. the proposed Project as a whole may fall within the requirements of the Directive.

Each element of the proposed development has been examined and the development clearly meets the definition of a Project as understood by the EU Directive.

2.2 Is the Development A Project That Requires a Mandatory EIA

The next step is to determine if the proposed development is 'of a project type' that requires mandatory EIA; i.e. is the proposed development of a project type in which a threshold does not exist. The types of projects to which thresholds do not apply are types that are considered to always be likely to have significant effects.

Ireland's type of projects for which an EIA is mandatory is set out in the Schedule 5 Part 1 and Part 2 of the Regulations. An EIA is deemed mandatory to accompany a planning application for development for the types of projects set out in Schedule 5. This list was developed from Annex I and Annex II of the EIA Directive.

There is no generic project type for 'substation development' listed under Schedule 5, Part 1 or Part 2 of the Regulations, therefore the proposed development is not of a type that would automatically require a mandatory EIA.

In considering the wider context and the component parts of the project the proposed development would most appropriately fall under the project type Schedule 5, Part 2, Class 10 Infrastructure Projects. Class 10 is of a type that sets out project thresholds; therefore, the next screening step is to determine whether the project exceeds the specific project threshold. As the proposed development involves changes to a permitted development for which an EIA was carried out consideration needs to be given to Annex II (13) (a) Any change or extension of projects listed in Annex I or Annex II, already authorised, executed or in the process of being executed. which may have significant adverse effects on the environment.

and

(ii) result in an increase in size greater than – - 25 per cent, or - an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.

2.3 Is the Project Above the Threshold For EIA

An EIAR is required to accompany an application for permission of a class set out in the Schedule 5, Part 1 and Part 2, of the Regulations which equals or exceeds, as the case may be, a limit, quantity or threshold set for that class of development. A development that does not exceed a limit, quantity or threshold set for that class of development in Schedule 5 of the Regulations is known as a 'sub-threshold development'.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2 Class 10 (a) to (m).

10. Infrastructure projects

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

(In this paragraph, "business district" means a district within a city or town in which the predominant land use is retail or commercial use.)

The total site area for is c. 0.77 hectares, the extent of the proposed amendments relates to a smaller portion of the overall development site. The site location is within an area where the predominant land use is business. The proposed development relates to amendments only to the substation that has previously been granted permission.

The Proposed Development site not equal to nor does it exceed the limit, quantity or threshold set out in Class 10 (b)(i) or Class 10(iv); therefore, an EIA is not mandatory on these grounds.

As the proposed development involves changes to a permitted development for which an EIA was carried out consideration needs to be given to Annex II (13) (a)

Annex II (13) (a) Any change or extension of projects listed in Annex I or Annex II, already authorised, executed or in the process of being executed, which may have significant adverse effects on the environment.

and

(ii) result in an increase in size greater than – - 25 per cent, or - an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.

Section 3, 4 and 5 of this report considers the impacts of the proposed amendments as required by Class 13 (a).

The proposed development (Reg. Ref.: SD19A/0042 and ABP Ref.: 305948-19) as granted comprises, an overall gross floor area of 17,685sq.m.

This application is to increase the substation from 3580 sqm to 12060 sqm. In terms of the overall development of 17,685sqm this does not constitute an increase in size Therefore, a mandatory EIA is also not required under this class.

The extension does not result in the development being of a Class listed in Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulation 2001 (as amended); therefore, an EIA is not mandatory.

2.4 Conclusion – Sub Threshold Development

The proposed development is 'of a type set out in Part 2 of Schedule 5 [in the Planning and Development Regulations, 2001 (as amended)] which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development'. The development is outside the mandatory requirements for EIA, and is considered to be sub-threshold for the relevant project type.

An EIA Report is still required by to accompany a planning application for sub-threshold development which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.

However, where a proposed development is a sub-threshold development, the Applicant may make an application for a screening determination for EIA to the Competent Authority in whose area the development would be situated. Therefore, the final step in the screening process is to consider the need for an EIA on a discretionary basis.

Article 4(4) of Directive 2014/52/EU requires the developer to provide information on the characteristics of the project and its likely significant effects on the environment, to allow the competent authorities to decide on the requirement for an EIA.

The remainder of this report is to form the basis of the application made for sub-threshold screening for EIA and presents the information required by Schedule 7A to demonstrate the likely effects on the environment, having regard to the criteria set out in Schedule 7.

The following Sections 3.0, 4.0 and 5.0 will provide information on the characteristics of the proposed development; the location and context, and its likely impact on the environment as well as a description of any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment. These sections present the information required under Schedule 7A of the Regulations, broadly set out in the structure of Schedule 7 to ensure that each aspect for consideration is robustly addressed.

For the avoidance of doubt, the mitigation measures, which are referred to in this Screening Report, should be considered as mitigation for the purposes of the Competent Authority's EIA screening determination.

3. CHARACTERISTICS OF PROPOSED DEVELOPMENT

This section addresses the characteristics of proposed development by describing the development in detail. This is to identify all areas of potential issues to explore further and assess for impacts.

The consented development (Reg. Ref.: SD19A/0042 and Ref: ABP-305948-19) granted by An Bord Pleanála on 6th October 2020, subject to 19 no. conditions consists of:

Phased development of 4 single storey data halls all with associated plant at roof level, 32 standby generators. office and service areas, service road infrastructure. car parking, ESB substation/transformer yard, An EIAR was submitted with the application.

Newcastle Road, Lucan, Co Dublin

The proposed amendments will comprise the following:

- Amendment to the layout and extent of the permitted substation compound, to include an extension of the compound area to c. 0.77 hectares.
- Reorientation of the Gas Insulated Switchgear (GIS) substation building to a north-south orientation, and associated amendments to the building footprint, layout, and elevations, providing for a two storey building with a gross floor area (GFA) of c. 1,456 sq.m.
- Alterations to the permitted single storey Client Control Building to provide for the substitution of this structure with 5 no. single storey modular client control units, with a combined total GFA of c. 231 sq.m (GFA of c. 46.2 sq.m per module).
- Associated amendments to the permitted substation access arrangements (3 no. gated access points provided), transformers, security fencing (to be 2.6 metres high in place of the 2.4 metre fencing permitted), lighting, services, MV substation, parking, utility cabling, amendments to permitted landscaping and berms adjoining the substation compound, and associated and ancillary works.

3.1 Size and Design of the Proposed Development

The proposed development encompasses amendments to the layout and extent of the permitted substation compound, which formed part of the wider data centre and energy centre development permitted under Reg. Ref.: SD19A/0042 and ABP Ref.: 305948- 19. As noted within the introduction to this report, it is intended that the substation subject of the proposed amendments will be known as the Kishoge substation.

As set out within the public notices, the amendments include an increase in the overall extent of the substation compound, when compared to the permitted compound, in order to satisfy the current requirements of the utility provider. The increase in substation extent will ensure that the substation operates in a safe and efficient manner, in line with ESB / EirGrid requirements.

The amendments include the reorientation of buildings and services within the substation compound, including the revised orientation of the main Gas Insulated Switchgear (GIS) building, to locate it along a north/south axis within the compound. The number of permitted transformers remains unchanged at 4 no. in total.

The following table 3.1 provides a brief overview of some of the key metrics for the current development proposal compared to the extant permission for development on site, to which the current amendments relate:

Key Metric	Extant Permission	Proposed Development
Area of Substation Compound	3,580 sq.m	12. 060sq.m
Gross Floor Area of GIS Building	494 sq.m	1456 sq.m
Gross Floor Area Client Control Building	247 sq.m	231 sq.m (within 5 no. modular units)
Height of Compound Fence	2.4 metres	2.6 metres

Table 3-1 Key Substation Metrics- Extant Permission and Proposed Development

Figure 3.1 below details the proposed substation development.

Figure 3-1 Proposed Substation Layout

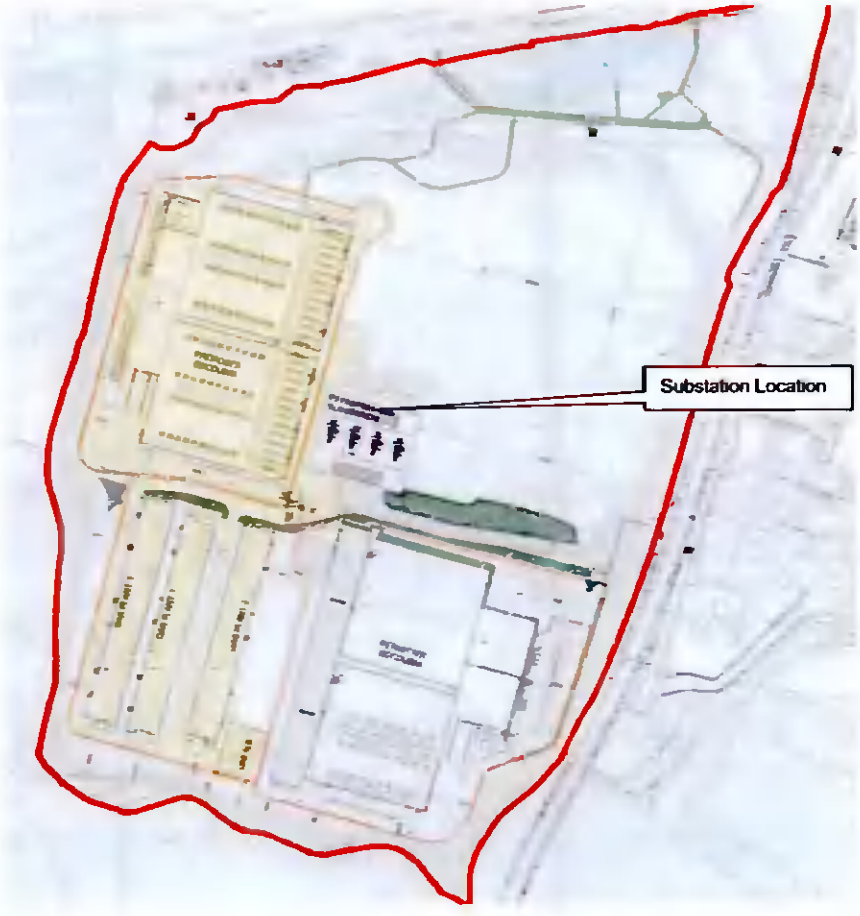

Figure 3-2 Substation Layout

Figure 3.2 is an extract from Further Information Stage Site Layout Plan of Reg. Ref SD21A/0042 indicating the layout of the permitted substation

3.2 Cumulation with Other Existing or Permitted Development

This section outlines the potential cumulation with other existing or permitted development. As part of the assessment of the impact of the proposed development, account has been taken of any relevant developments that are currently permitted, or under construction and substantial projects for which planning has been submitted within the surrounding areas, as well as existing local land uses.

The site is located within the South County Dublin administrative area. The proposed development is to be located within an area zoned EE (Enterprise and Employment) under the County Development Plan with the stated aim: *"To provide for enterprise and employment related uses"*. The proposed use is a permitted use under the EE zoning.

It is the policy of the Council to support sustainable enterprise and employment growth in South Dublin and in the Greater Dublin Area, whilst maintaining environmental quality. A number of objectives relate to EE zoned lands that include ET3 Objective 2 that states:

"*To prioritise high tech manufacturing, research and development and associated uses in the established Business and Technology Cluster to the west of the County (Grange Castle and Citywest areas) to maximise the value of higher order infrastructure and services that are required to support large scale strategic investment.*"

Policy ET3 Objective 5 requires that "all business parks and industrial areas are designed to the highest architectural and landscaping standards and that natural site features, such as watercourses, trees and hedgerows are retained and enhanced as an integral part of the scheme"

Section 11.7.6 of the Plan sets out that development proposals for new industrial and commercial developments and large extensions to existing premises, where the processes associated with the primary operation of the proposal generates significant waste heat must carry out an energy analysis of the proposal and identify the details of potential waste heat generated and suitability for waste heat recovery and utilisation on site and with adjoining sites. This is required to include heat recovery and re-use technology on site, and include heat distribution infrastructure above or below ground (include future proofing of the building fabric to facilitate future connection).

The nature of the overall design has been informed by a detailed site analysis, the enhancement and creation of new bio-diversity corridors to fully integrate the scheme into the surrounding environment ensuring direct and cumulative impacts on biodiversity are addressed in the overall design. This mitigation of design also increases native tree planting within the site from its current position. In conclusion it is considered that the subject proposal is in accordance with the policies and objectives of local, regional and national land use planning policy

The subject site and area of application was purchased by EdgeConneX Ireland Ltd. in 2018. The site is strategically located to the immediate west of an industrial business park between the N4 and N7 national primary roads, which are well served by a regional road network. Access to the site will be via a new access road off the recently realigned R120. The site will be fully secured with a 2.6m high security fence, CCTV and surveillance systems as permitted under the previous phases of development.

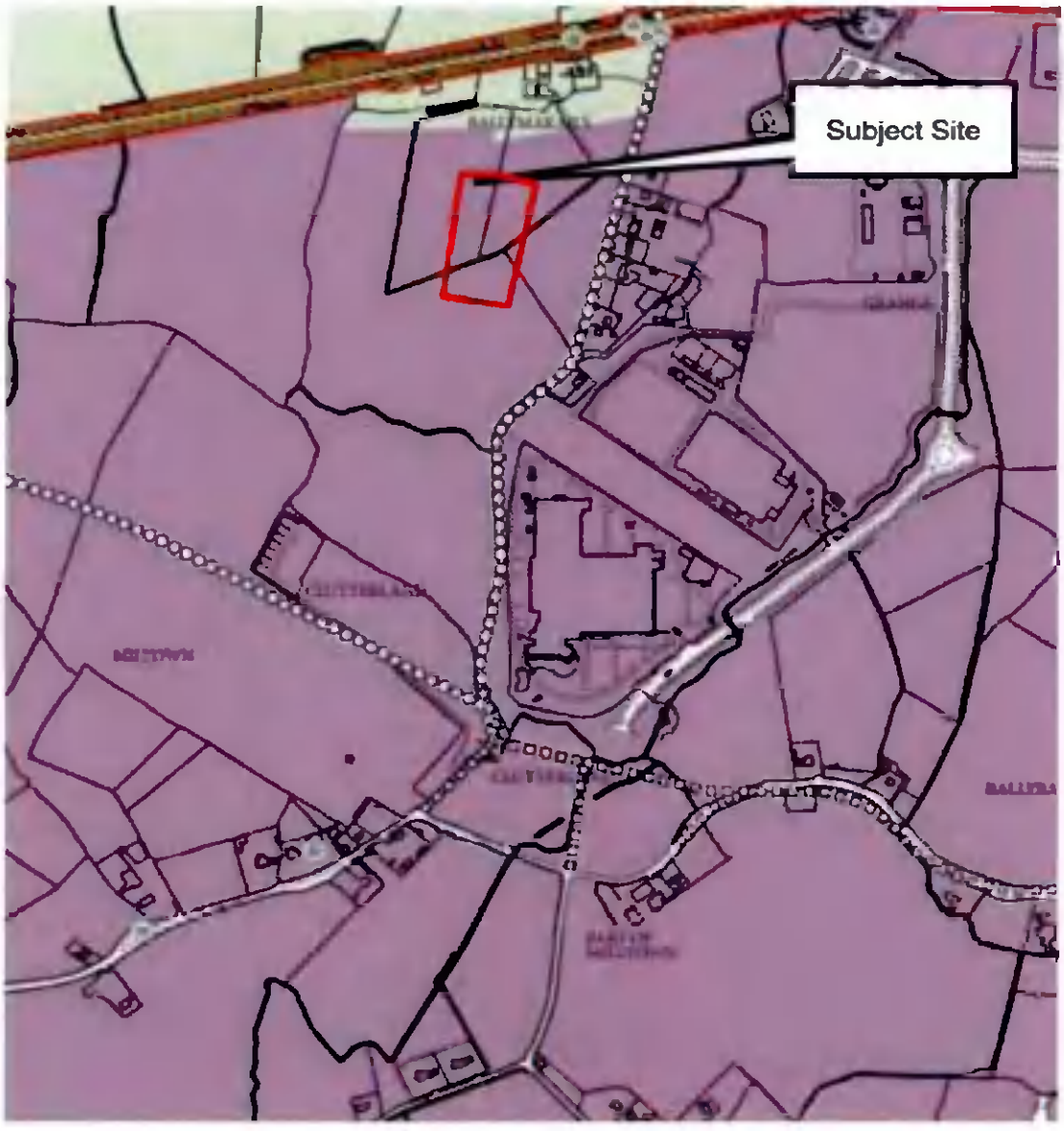

Figure 3-3 Site Zoning (Source: South Dublin County Development Plan 2017-2023)

The South Dublin County Council online planning search system was consulted for the previous 3 years to generate a list of notable or applications granted permission within that period. Table 3.2 below documents the planning history within the vicinity of the subject site.

Planning Reference	Description	Applicant	Decision and Date
SD21A/0296	Retention and completion of amendments to permitted internal road layout, internal fencing and other ancillary internal layout amendments that	EdgeConnex Ireland Limited	Application Invalid 15/12/2021

Planning Reference	Description	Applicant	Decision and Date
	were permitted under SD18A/029		
SD21A/0042	Construction of two single storey data centres with associated office and service areas; and three gas powered generation plant buildings with an overall gross floor area of 24.624sq.m	EdgeConnex Ireland Limited	Permission Granted 19/01/2022
SD21A/0028	Construction of a 145m x 85m all-weather pitch; mesh fencing; ball stop netting; 8 16m high lighting masts; floodlights and all associated works	Lucan Sarsfield GAA Club	Permission Granted 07/04/2021

Table 3-2 Planning History within the vicinity of the Subject Site

The area has been subject to several planning permissions being granted for data centres in recent years. The following is just a synopsis of these.

Planning Reference	Description	Applicant	Decision and Date
SD19A/0004	Enabling works to facilitate the future development of the site; topsoil strip and a cut and fill operation across the site; temporary construction access will be created off the R120 to facilitate the works within the townland of Ballymakaily to the west of the Newcastle Road (R120).	EdgeConnex Ireland Limited	Granted 16/04/2019
SD16A/0176	Enabling works to facilitate the future development of the site. Enabling works will include the demolition of the existing storage and outbuildings (3,118sqm) and other temporary buildings on the site; and it's clearing as well as the diversion of existing	EdgeConnex Ireland Limited	Granted 18/07/2016

Planning Reference	Description	Applicant	Decision and Date
	services. including existing culvert, that traverse the site; and to level the site for future development.		
SD16A/0214	Construction of a single storey data centre (4,435sq.m) with plant at roof level. associated support services and 6 standby generators with associated flues (each 15m high); and single storey office and loading bay (1,341sq.m) as well as an electricity sub-station (63sq.m) with a total floor area of 5,839sq.m. The development will also include ancillary site works, including attenuation tank, to connect to existing Grange Castle infrastructural services as well as fencing, signage, services road, entrance gate, 26 car parking spaces including 2 disabled car parking spaces, as well as sheltered bicycle parking. The development will be enclosed with landscaping to all frontages. An Environmental Impact Statement (EIS) has been submitted with this application. An application for enabling works to facilitate this development has been made under Reg. Ref. SD16A/0176.	EdgeConneX Ireland Ltd.	Granted 11/08/2016
SD17A/0027	Amendment of permission granted under SD16A/0345 that will relocate the temporary gas powered generation plant from lands to the rear of the Takeda Ireland complex to the east of the site, to lands to the	EdgeConneX Ireland Ltd.	Granted 04/04/2017

Planning Reference	Description	Applicant	Decision and Date
	immediate north of Phase 1 data hall and single storey office granted under SD16A/0214 and to the south of the ESB substation and transformer yard that was permitted under SD16A/0345. The relocated temporary gas-powered generation plant will be enclosed within a walled yard containing 12 generator units with associated flues (each 15m high). The development will also include new vehicular access to the temporary generator plant off the permitted service road as granted under SD16A/0214. The development will be enclosed with revised landscaping from that granted under SD16A/0214. An Environmental Impact Statement (EIS) has been submitted with this application.		

Table 3-3 Data Centre Planning Examples

It is important to note that each project currently permitted shown in the tables 3.2 and 3.3 above are subject to planning conditions which include appropriate mitigation measures to minimise environmental impacts. Any new development proposed in the surrounding area would be accompanied by and EIA, or EIA Screening as required and the take into consideration the development of this site.

3.3 Nature of any Associated Demolition Works

There are no demolition works associated with the proposed development.

3.4 Use of Natural Resources (Land, Soil, Water, Biodiversity)

This section describes the proposed development in terms of the use of natural resources, in particular land, soil, water, biodiversity. The proposed development will consume minimal amounts of natural resources during construction and operation.

Land and Soils

The site is in the catchment of the Griffeen River. The land surrounding the site is a mixture of agricultural, residential and industrial. According to the EPA website, there are a number of licensed IPPC facilities in the locality.

The bedrock geology underlying the site and surrounding area is dominated by rocks of Carboniferous Age. The site and local area is underlain by Dinantian Limestones. The site investigation report indicates the depth to bedrock ranged from 1.5m-3.0mbgl throughout the site. No bedrock outcrops were identified during the site investigations. However, bedrock outcrops occur at several locations within this region with a number of these located to the western part of the proposed site.

On the GSI regional mapping the site and overburden geology comprise Quaternary Glacial Till. The GSI presently classifies the aquifer in the region of the site as Extreme (E) which indicates an overburden depth of 0-3m is present.

Representative groundwater sampling and analysis did not indicate any evidence of extensive contamination at the site. Soil quality analysis results does not indicate any notable contamination across the site. It is not likely that there is any resultant groundwater contamination leaching from the soil on the subject site. The site is not located near any public groundwater supplies or group schemes. There are no groundwater source protection zones in the immediate vicinity of the site.

Hydrology

The proposed development is located within the Ireland River Basin District in Hydrometric Area No. 09 of the Irish River Network. It is within the River Liffey catchment. The Griffeen River (stream) is located 330m east of the site. The Lucan stream is located 310m to the west of proposed site and runs in a northerly direction. The Grand Canal runs in an east to west direction along the northern boundary of the development and is classified as a proposed National Heritage Area (pNHA). There is no hydrologic connection between the site and Grand Canal. The existing site is greenfield in nature where surface water flows via overland drainage ditches and a surface water drain into the Lucan Stream and Griffeen River. Stormwater will discharge through an adequately sized attenuation pond at the northern end of the site to allow discharge at greenfield run off rates.

Service and infrastructure have already been installed within the Grange Castle Business Park The flood assessment shows that the proposed development is within Flood Zone C i.e. outside the 1,000 year flood level (0.1% annual exceedance probability (AEP)). The Flood Risk Assessment identifies the development as 'Less Vulnerable' and in conjunction with an assessment of the available flood data is therefore classified as appropriate

Biodiversity

The Grand Canal pNHA (002104) is located to the north of the proposed site and its boundary overlaps with that of the application site but t is not hydrologically connected to the site. The pNHA designation has been made on the basis of the presence of several important habitats including calcareous grassland, reedbed, swamp, scrub and woodland as well as protected species such as Otter.

The following habitat types were identified within the proposed development site: • Buildings and artificial surfaces (BL3);

- Recolonising bare ground (ED3);
- Drainage ditches (FW4);

- Improved agricultural grassland (GA1);
- Arable crops (BC1); and •
  - Hedgerows (WL1) / Treelines (WL2).

No protected, Red Data Book (Curtis & McGough, 2005) or rare flora species were recorded.

None of the bat species found within the 2km search of the National Biodiversity Data Centre are listed as a Qualifying Interests of any European site in Ireland. The proposed development is outside of the normal range and distribution of the lesser horseshoe bat. which is the only resident bat species in Ireland that is listed on Annex II of the EU habitats directive, and for which European sites have been designated..

All wild birds and their nests are protected under the Wildlife Acts. During winter bird surveys a total of 2 red-listed birds, 5 amber-listed and 10 green-listed species were recorded. Both the Lapwing flock and Meadow Pipit are unlikely to be impacted by the proposal due to the continuing high levels of similar habitat in surrounding lands

Lapwing (Vanellus vanellus)
Meadow Pipit (Anthus pratense)
Skylark (Alauda arvensis)
Snipe (Gallinago gallinago)
Linnet (Carduelis cannabina)
Robin (Erithacus rubecula)
House sparrow (Passer domesticus)
Goldfinch (Carduelis carduelis)
Blackbird (Turdus merula)
Chaffinch (Fringilla coelebs)
Bullfinch (Pyrrhula pyrrhula)
Wood pigeon (Columba palumbus)
Dunnock (Prunella modularis)
Pied wagtail (Motacilla alba)
Wren (Troglodytes troglodytes)
Redwing (Tardus iliacus)
Blue tit (Cyanistes caeruleus)

With regard to the baseline EclA prior to the consented development, it is considered that the existing site has a negligible to low local biodiversity value. The proposed development is therefore not considered to impact on biodiversity resources.

3.5 Production Of Waste

3.5.1 Construction Phase

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

During the construction phase there may be a surplus of building materials, such as timber off-cuts, broken concrete blocks, plastics, metals and tiles generated. There may also be excess concrete during construction which will need to be disposed of. Plastic and cardboard waste from packaging and oversupply of materials will also be generated.

Waste will also be generated from construction workers e.g. organic/food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

Table 3.4 below provides an estimate of the main waste types likely to be generated during the construction phase of the proposed development.

Waste Type	Tonnes	Reuse		Recycle/Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	220.3	10	22.0	80	176.2	10	22.0
Timber	186.9	40	74.8	55	102.8	5	9.3
Plasterboard	66.7	30	20.0	60	40.0	10	6.7
Metals	53.4	5	2.7	90	48.1	5	2.7
Concrete	40.0	30	12.0	65	26.0	5	2.0
Other	100.1	20	20.0	60	60.1	20	20.0
Total	667.5		151.5		453.2		62.7

Table 3 4 Estimated Off-Site Reuse, Recycling and Disposal for Construction Waste

All waste arising during the construction phase will be managed and disposed of in a way that ensures the provisions of the Waste Management Act 1996 and associated amendments and regulations and the Waste Management Plan. Waste during construction will be managed in accordance with a project specific Construction and Demolition Waste Management Plan.

It should be noted that until final materials and detailed construction methodologies have been confirmed it is difficult to predict with a high level of accuracy the construction waste that will be generated from the construction of the proposed development as the exact materials and quantities may be subject to some degree of change and variation during the construction process. However, the above estimates are considered to be the worst-case scenario.

Operational Phase

The proposed amendments are of a minor nature, and do not increase the nature of the operation as compared with the consented scheme. As a result of the proposed amendments the predicted waste streams during the operational phase from the substation are unchanged from the consented development.

The typical non-hazardous and hazardous wastes that will be generated at the proposed development will include the following:

- Dry Mixed Recyclables (DMR) - includes wastepaper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons;
- Organic waste – food waste and green waste generated from internal plants/flowers;
- Glass; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types generated in small quantities which will need to be managed separately including:

- Green/garden waste may be generated from internal plants, gardens or external landscaping;
- Batteries (both hazardous and non-hazardous);
- Waste electrical and electronic equipment (WEEE) (both hazardous and non-hazardous);
- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.) ;
- Lightbulbs;
- Textiles (rags);
- Waste cooking oil (if any generated by the residents tenants);
- Furniture (and from time to time other bulky wastes); and
- Abandoned bicycles.

Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible.

The implementation of the mitigation measures outlined above will ensure that a high rate of reuse, recovery and recycling is achieved at the development during the construction phase as well as during the operational phase. It will also ensure that European, National and Regional legislative waste requirements with regard to waste are met and associated targets for the management of waste are achieved. Primarily, implementation of the C&D WMP and mitigation measures for operational waste will minimise the volume of waste requiring disposal at landfill.

A carefully planned approach to waste management and adherence to the C&D WMP during the construction phase will ensure that the impact on the environment will be neutral, short-term and imperceptible. The opportunities for waste materials to be reused off-site will provide positive impacts in the resourcing of materials for other developments and reduce the requirement for raw material extraction.

During the operational phase, a structured approach to waste management will promote resource efficiency and waste minimisation. Provided the mitigation measures identified above are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted impact of the operational phase on the environment will be neutral, long term and imperceptible

3.6 Pollution And Nuisances

There are potential short-term nuisances such as dust, noise, as well as the potential for pollution of groundwater associated with demolition, excavations and construction. In advance of work starting on site, the works contractor will prepare a detailed Construction Environmental Management Plan (CEMP). The CEMP will set out the overarching vision of how the construction of the proposed development will be managed in a safe and organised manner by the Contractor.

The CEMP minimisation measures to ensure that pollution and nuisances arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

This CEMP will be maintained by the contractors during the construction and operational phases and covers all potentially polluting activities and include an emergency response procedure. All personnel working on the site will be trained in the implementation of the procedures.

3.7 Risk of Major Accidents and/or Disasters

3.7.1 Landslides, Seismic Activity and Volcanic Activity

The Geological Survey Ireland (GSI) landslide database[6] was consulted and the nearest landslide to the proposed development was c. 7.5km to the north of the site, referred to as the Diswellstown 1990 event which occurred in August 1990. There have been no recorded landslide events at the site. Due to the local topography and the underlying strata there is a negligible risk of a landslide event occurring at the site.

In Ireland, seismic activity is recorded by the Irish National Seismic Network. The Geophysics Section of the School of Cosmic Physics at the Dublin Institute for Advanced Studies (DIAS) has been recording seismic events in Ireland since 1978. The station configuration has varied over the years. Currently there are five permanent broadband seismic recording stations in Ireland and operated by DIAS. The seismic data from the stations comes into DIAS in real-time and are studied for local and regional events. Records since 1980 show that the nearest seismic activity to the proposed location was in the Irish sea (1.0 – 2.0 Ml magnitude) and ~50 km to the south in the Wicklow Mountains. There is a very low risk of seismic activity at the proposed development site.

There are no active volcanoes in Ireland so there is no risk from volcanic activity.

3.7.2 Flooding/Sea Level Rise

The potential risk of flooding on the site was reviewed with regard to incidences of historical, regional and local flooding relevant to the area of the subject site.

The Flood Risk Assessment that accompanies this application and forms a stand-alone document by Pinnacle Consulting states that the Proposed Development site is located within Flood Zone C "Low Probability". Therefore, the development is classified as appropriate for this flood zonation.

3.7.3 Major Accidents/Hazards

The Seveso Directive (Directive 82/501/EEC, Directive 96/82/EC, Directive 2012/18/EU) was developed by the EU after a series of catastrophic accidents involving major industrial sites and dangerous substances. Such accidents can give rise to serious injury to people or serious damage to the environment, both on and off the site of the accident. The Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), implement the latest Seveso III Directive (2012/18/EU).

The purpose of the COMAH Regulations is to transpose the Seveso Directive into Irish law and lay down rules for the prevention of major accidents involving dangerous substances, and to seek to limit as far as possible the consequences for human health and the environment of such accidents, with the overall objective of providing a high level of protection in a consistent and effective manner.

The facility will not be a Seveso facility. The only Seveso substance stored on the wider landholding will be diesel for generators and the amount proposed does not exceed the relevant thresholds of the Seveso directive

The closest notified Seveso sites to the proposed development is the Brenntag Chemicals Distribution (Ireland) Ltd lower tier site (700m consultation zone). The Brenntag Chemicals site is located 3.88km south-west of the site boundary. The proposed development site is not located within the consultation distance of this site.

The proposed development has been designed in accordance with the Safety, Health and Welfare at Work Act 2005 (S.I. 10 of 2005) as amended and the Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016 (S.I. 299 of 2007, S.I. 445 of 2012, S.I. 36 of 2016) as amended and associated regulations.

3.7.4 Minor Accidents/Leaks

There is a potential impact on the receiving environment as a result of minor accidents/leaks of fuel/oils during the construction. However, the implementation of the mitigation measures set out in this report will ensure that the residual effect on the environment is imperceptible.

3.8 Risks to Human Health

The characteristics of the proposed development, in terms of the risks to human health (for example, due to water contamination or air pollution) have been considered. The primary potential impacts of the proposed development on human health would be increased air pollution, noise, or pollution of groundwater/watercourses as a result of the proposed development. Visual impact and traffic are also potential but perhaps lesser significant impacts (based on the location of the proposed development).

The Geological Survey Ireland (GSI) data indicates that the site does not lie within a drinking water protection area. The area is serviced by mains water supply therefore it is unlikely that any wells are used for potable water supply. There are no significant watercourses on the site, the only pathway for contamination would be through the stormwater mains. The proposed mitigation measures during the construction phase, including the implementation of the CEMP will ensure that there are no impacts on groundwater or the stormwater mains.

Stormwater and wastewater from the proposed development will connect to mains supplies and will not have a potential impact on local amenities or the local population.

The risks to human health as a result of major accidents and/or disasters including flooding have been considered with respect to the location of the development site, and discussed further in Section 3.7 above.

The CEMP already submitted as part of the parent application incorporates and best practice construction methodologies for the control of dust generation, traffic, and noise, as well as the management of impacts on groundwater during the construction phase. Any impacts associated with dust generation, traffic, and noise will be ***short-term.***

4. LOCATION AND CONTEXT OF THE PROPOSED DEVELOPMENT

4.1 Existing and Approved Land Use

The site is located within the South Dublin County administrative area.

The Proposed Development is located on EE zoned lands with the objective *"To provide for enterprise and employment related uses"* under the South Dublin County Development Plan 2016- 2022 and located adjacent to extensive industrial development. The South Dublin County Development Plan is the statutory planning document that covers the entire South Dublin administrative area. The Plan was adopted in June 2016 and was the subject of Variations which were adopted by South Dublin County Council on 21st May 2018. The Proposed Development is to be located within an area zoned EE (Enterprise and Employment) under the County Development Plan back in 2016 and was not subject to the Variation

Permission has already been granted on this site for an electrical substation compound and structures under Reg. Ref.: SD19A/0042 and An Bord Pleanála Ref.: 305948-19. This current application is for amendments to the already granted substation.

4.2 Relative Abundance, Availability, Quality and Regenerative Capacity of Natural Resources in The Area and Its Underground

4.2.1 Hydrogeology and Hydrology

The site is in the catchment of the Griffeen River. The land surrounding the site is a mixture of agricultural, residential and industrial. According to the EPA website, there are a number of licensed IPPC facilities in the locality.

The bedrock geology underlying the site and surrounding area is dominated by rocks of Carboniferous Age. The site and local area is underlain by Dinantian Limestones. The site investigation report indicates the depth to bedrock ranged from 1.5m-3.0mbgl throughout the site. No bedrock outcrops were identified during the site investigations. However, bedrock outcrops occur at several locations within this region with a number of these located to the western part of the proposed site.

On the GSI regional mapping the site and overburden geology comprise Quaternary Glacial Till. The GSI presently classifies the aquifer in the region of the site as Extreme (E) which indicates an overburden depth of 0-3m is present.

Representative groundwater sampling and analysis did not indicate any evidence of extensive contamination at the site. Soil quality analysis results does not indicate any notable contamination across the site. It is not likely that there is any resultant groundwater contamination leaching from the soil on the subject site. The site is not located near any public groundwater supplies or group schemes. There are no groundwater source protection zones in the immediate vicinity of the site

The GSI Well Card Index[7] is a record of wells drilled in Ireland, water supply and site investigation boreholes. It is noted that this record is not comprehensive as licensing of wells is not currently a requirement in the Republic of Ireland... This current index does not show any wells drilled and springs at the site or surrounding area with the nearest recorded wells located over 3km to the west of the site (see Appendix C.6). The area is serviced by public mains therefore it is unlikely that any wells are used for potable supply. The site is not located near any public groundwater supplies or group schemes. There are no groundwater drinking water protection areas within 5km of the site

The groundwater body in the region of the site (Dublin GWB) is classified under the Water Framework Directive (WFD) Directive 2000/60/EC Risk Score system (EPA, 2021) as *'Under Review"* and it was given a classification of "*Good*" for the last WFD cycle (2013-2018).

There are no significant surface water features on or bordering the site. There are no sensitive soil or water receptors; no identified areas of geological heritage or groundwater supplies in the vicinity of the site boundary.

The proposed development is located within the Ireland River Basin District in Hydrometric Area No. 09 of the Irish River Network. It is within the River Liffey catchment. The Griffeen River (stream) is located east of the site. The Lucan stream is located to the west of proposed site and runs in a northerly direction. The Grand Canal runs in an east to west direction along the northern boundary of the development and is classified as a proposed National Heritage Area (pNHA). There is no hydrologic connection between the site and the Grand Canal.

The existing site is greenfield in nature where surface water flows via overland drainage ditches and a surface water drain into the Lucan Stream and Griffeen River. Stormwater will discharge through an adequately sized attenuation pond at the northern end of the site to allow discharge at greenfield run off rates.

Service and infrastructure have already been installed within the Grange Castle Business Park for foul water and it is proposed to connect foul water services from the proposed development to this. The foul water is connected to the off-site public sewer, which in turn discharges to the local foul drainage system and ultimately on to Ringsend Wastewater Treatment Plant. Water supply to the Grange Castle Business Park is provided through mains supply (450mm water main).

The flood assessment shows that the proposed development is within Flood Zone C i.e. outside the 1,000 year flood level (0.1% annual exceedance probability (AEP)). The Flood Risk Assessment identifies the development as 'Less Vulnerable' and in conjunction with an assessment of the available flood data is therefore classified as appropriate

As there is no direct pathway and proposed discharges the proposed development will not impact on the current water quality status of the Grand Canal under the Water Framework Directive.

4.2.2 Biodiversity and Areas of Conservation

The potential ecological impacts of proposed development have been considered in terms of the sensitivity of the location through the Scott Cawley Appropriate Assessment (AA) Screening report included with the planning documentation and Ecological Impact Assessment (EcIA) for the consented development also by Scott Cawley.

The exiting habitats on site in accordance with Fossitt's Guide to Habitats in Ireland (Fossitt, 2000 are built land, buildings and artificial surfaces artificial in nature (BL3), spoil and bare ground (ED2), and recolonising bare ground (ED3). The development area is generally of relatively Low Local Ecological Value. There are no Annexed habitats or species within or adjacent to the proposed development site. There are no rare or protected habitats recorded within the study area. The general habitats under the footprint of the proposed development are of low local ecological value.

The Department of Environment, Heritage and Local Government (2009) Guidance on Appropriate Assessment recommends an assessment of European sites within a Zone of Impact (ZoI) of 15km. European sites that are located within 15km of the Proposed Development are listed in Table 4.1 below.

Site Code	Site name	Distance (km)[1]
001398	Rye Water Valley / Carton SAC	4.1
001209	Glenasmole Valley SAC	9.5
002122	Wicklow Mountains SAC	11.2
004040	Wicklow Mountains SPA	14.4
000128	Liffey Valley pNHA	2.9
002103	Royal Canal pNHA	4.6

Table 4-1 European Sites within 15km of the Proposed Development

Four European sites lie within 15km of the proposed the proposed development; with others hydrologically connected to the proposed development site via the River Liffey. However, following a detailed analysis, no European sites are deemed to be at risk of likely significant effects from construction or operation of the proposed development. This conclusion has been reached by an analysis of Qualifying Interests (QIs) of all sites, and of the threats potentially preventing these QI's from maintaining favourable conservation status. The contribution of other potential projects in the same area has also been assessed in this screening exercise. The assessment has shown that there are no elements of the proposed development that could, on their own or in combination with other plans or projects, lead to a risk of significant impacts on European sites

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 a European site.

4.3 Absorption Capacity of The Natural Environment

The proposed development due to its size and localised nature will not have any effect on wetlands, riparian areas, river mouths, coastal zones and the marine environment, mountain and forest areas, nature reserves and parks, or densely populated areas.

The environmental sensitivity of the proposed location in respect of Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive been addressed through the AA Screening.

5. TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS

This section sets out the likely significant effects on the environment as a result of the proposed development in relation to criteria set out Sections 4 above, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (v) of the definition of 'environmental impact assessment report' in section 171A of the Act (as amended).

Section 171A; paragraph (b)(i)(I) to (v) is as follows:

(I) population and human health;

[1] Distances indicated are the closest geographical distance between the Proposed Development and the European site boundary, as made available by the NPWS. Connectivity along hydrological pathways may be significantly greater.

(II) biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive;

(III) land, soil, water, air and climate;

(IV) material assets, cultural heritage and the landscape;

(V) the interaction between the factors mentioned in clauses (I) to (IV)

The quality, magnitude and duration of potential impacts are defined in accordance with the criteria provided in the *Guidelines on Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2017) this criteria is duplicated in Table 5.2.

Characteristic	Term	Description
Quality of Effects	Positive	A change which improves the quality of the environment
	Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative	A change which reduces the quality of the environment
Describing the Significance of Effects	Imperceptible	An impact capable of measurement but without noticeable consequences
	Not significant	An effect which causes noticeable changes in the character of the environment but without noticeable consequences
	Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
	Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters the majority of a sensitive aspect of the environment.
	Profound	An impact which obliterates sensitive characteristics
Describing the Extent and Context of Effects	Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the Probability of Effects	Likely Effects	The effects that can reasonably be expected to occur as a result of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Describing the Duration and Frequency of Effects	Momentary Effects	Effects lasting from seconds to minutes
	Brief Effects	Effects lasting less than a day
	Temporary Effects	Effects lasting less than a year
	Short-term Effects	Effects lasting one to seven years.
	Medium-term Effects	Effects lasting seven to fifteen years
	Long-term Effects	Effects lasting fifteen to sixty years

Characteristic	Term	Description
	Permanent Effects	Effects lasting over sixty years
	Reversible Effects	Effects that can be undone, for example through remediation or restoration
	Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Type of Effects	Indirect Effects	Impacts on the environment. which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
	'Do Nothing'	The environment as it would be in the future should no development of any kind be carried out
	'Worst case' Effects	The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable	When the full consequences of a change in the environment cannot be described
	Irreversible	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost
	Residual	Degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic	Where the resultant impact is of greater significance than the sum of its constituents

Table 5-1 Schedule of Impacts following EPA Guidelines (2017)

5.1 Population and Human Health

5.1.1 Construction Phase

The construction phase of the proposed development will result in the creation of a construction site that will have a short-term and temporary slight negative impact on the immediate local environment and the amenity of existing residents, and amenity of the Grand Canal as a result of noise and disturbance during construction. There are several immediately adjoining residences, and these will have ongoing noise disturbance as a result of construction activity and traffic throughout the construction process. The construction phase of the overall development therefore is considered likely to have a slight but short term negative impact on the local community and population.

The proposal will not result in any change to the permanent population of the area during the construction phase. There will be a lengthening of the increase in the temporary population of the area as a result of the employment of workers from outside the wider Dublin area that may need to reside in the immediate local area during the construction process. This will amount to only a small percentage of the workforce employed during the construction phases of the scheme but will result in some additional trade for local accommodation and services. The majority of the work force will travel from existing places of residence to the construction site rather than reside in the immediate environs of the site. However, some local employment from within the wider local area is expected.

The construction phase therefore is predicted to have a slight short term positive impact on the economy and employment of the area but a short-term slight negative impact on the local community.

The CEMP will incorporate and best practice construction methodologies for the control of dust generation, traffic, and noise, as well as the management of impacts on groundwater or the existing drainage ditches during the construction phase. Any impacts associated with dust generation, traffic, and noise will be short term.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of population and human health during the construction phase. The potential impact of the proposed development with respect to populations human health during the construction phase is ***negative, not significant*** and **short-term**. There are no likely significant effects in terms of the populations and human health during the construction phase and it would not warrant preparation of an EIA on these grounds.

5.1.2 Operational Phase

The proposal will facilitate the substation to comply with revised design requirements from Eirgrid which all new substations must comply with. Based on the social class profile of the local community, a small number of the local population in the hinterland of the subject site are predicted to benefit from the new employment, which will be created. This is a slight positive impact. Some additional employment, similar to the level of permanent jobs, will also be created in support services including building maintenance, cleaning and catering services. The impact on the amenity of the Grand Canal is viewed as being neutral given the mitigation proposed

As described in Section 3.7 the Risk of Major Accidents and/or Disasters imperceptible to low, the site is not located within an area at risk of natural disasters, the risk of flooding at the stie is addressed as part of the site specific flood risk assessment for the consented development, additionally the site is not within the consultation zone of any Seveso site. The Flood Risk Assessment that accompanies this application and forms a stand-alone document by Pinnacle Consulting states that the Proposed Development site is located within Flood Zone C "Low Probability". Therefore, the development is classified as appropriate for this flood zonation.

Building services noise / emergency site operation -- Proprietary noise and vibration control measures will be employed in order to ensure that noise emissions from building services plant do not exceed the adopted criterion at the façade of any nearby noise sensitive locations. In addition, noise emissions should be broadband in nature and should not contain any tonal or impulsive elements. The resultant noise impact is not significant

Additional Vehicular Traffic on Public Roads -- Any change in noise levels associated with vehicles at road junctions in the vicinity of the proposed development is expected to be imperceptible. The resultant noise impact is not significant.

The environmental noise survey takes account of noise emissions from existing developments. It was noted that the existing ambient noise levels in the area were dominated primarily by road traffic on the surrounding road network.

The noise criteria proposed for new building services plant items has been derived with consideration of existing site noise emissions levels to ensure that cumulative noise emissions do not exceed the relevant noise criteria. The potential cumulative noise emissions from the proposed development and neighbouring permitted Microsoft and Interexion Data Centres have been considered. Predicted cumulative plant noise emissions are within the daytime, evening and night-time limit values

There are no potential impacts in relation to noise on human health.

There are no planned direct discharges to water or land, although the risk of accidental discharge or spills exists. A number of design measures will be adopted to prevent the contamination of groundwater during the operational phase; as described in Section 5.2

The design of the proposed development has due regard of the sensitivity of the surroundings. Landscape and Visual impacts are discussed further in Section 5.7.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of population and human health during the operational phase. The potential impact of the proposed development with respect to populations and human health during the operational phase is ***neutral***, ***not significant*** and ***long-term***. There are no likely significant effects in terms of the populations and human health as during the operational phase, and it would not warrant preparation of an EIA on these grounds.

5.2 Biodiversity

There will be no likely significant effects on any European Sites as a result of the proposal. As per the existing permitted developments, existing hedgerows and treelines bordering the proposed development site will be retained and strengthened with additional planting of native species.

The Proposed Development site is within the Liffey catchment. There are several drainage ditches within the proposed site which converge in a ditch in the north-east of the site, and outfalls to the River Griffeen. Additionally, the Ballymakaily stream is located c. 136m east of the proposed development site. This stream outfalls to the River Griffeen c. 339km downstream which outfalls to the River Liffey c. 4km north of the proposed development site, which in turn discharges to the Liffey Estuary and to Dublin Bay c. 23.3km downstream. Therefore the Proposed Development is hydrologically connected to the following European sites in Dublin Bay: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

The proposed development site is located directly west of the R120 Newcastle Road, Co. Dublin (Grid Reference: O 20685, 31935). The site is presently managed for agricultural purposes, mostly comprising arable crops with some grazed pasture. Field boundaries are dominated by hedgerows and treelines with drainage ditches. The northern section of the proposed site comprises derelict buildings including farmyard sheds, outbuildings and a residential property, which are adjacent to the Grand Canal. Agricultural land extends to the south, west and immediate north, with Grange Castle Business Park occupying lands to the east. Kishoge substation According to the South Dublin County Development Plan (2016-2022) the site is mainly zoned as EE (Enterprise and Employment) under the County Development Plan with the stated aim "To provide for enterprise and employment related uses". The northern section of the site closest to the Grand Canal is zoned as RU (Rural and Agriculture) with the stated aim "To protect and improve rural amenity and to provide for the development of agriculture".

Potential cumulative impacts could be significant and are likely to be experienced at local level. Regarding potential cumulative impacts on fauna (mammals, bats, birds and amphibians), given the zoning of surrounding lands, habitat loss, disturbance and lighting impacts could result in significant impacts likely to be experienced at local level. Assuming successful implementation of mitigation measures, no significant residual impacts are predicted

5.2.1 Construction Phase

As with any construction site there is the potential for deterioration in water quality as a result of elevated suspended solids or from chemical pollution which would have the potential to significantly impact on downstream habitats and ultimately species. However, this will be avoided by measures set out in the CWMP.

The development works to date have included site vegetation clearance and stripping of the topsoil on site. No additional vegetation clearance is required to facilitate the proposed amendments.

Given the working areas are contained in within artificial environments and the relatively small scale of the proposed works, there will be no effects on flora and fauna.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of biodiversity during the construction phase. The potential effects on biodiversity are ***neutral***, ***imperceptible,*** and ***short term*** for the construction phase. There are no likely significant effects in terms of biodiversity, and it would not warrant preparation of an EIA on these grounds.

5.2.2 Operational Phase

The operational phase of the proposed development is not predicted to have any impact on biodiversity.

The potential effects on biodiversity are ***neutral***, ***imperceptible,*** and ***long term*** for the construction phase. There are no likely significant effects in terms of biodiversity, and it would not warrant preparation of an EIA on these grounds.

5.3 Land, Soils, Geology, Hydrogeology, Hydrology

5.3.1 Construction Phase

Soil handling, Removal and Compaction

Material which is exported from site, if not correctly managed or handled, could impact negatively on human beings (onsite and offsite) as well as water and soil environments. The project specific CEMP will set out best practice construction methodology to manage the risk of accidental spills and leaks.

Accidental Spills and Leaks

As with all construction projects there is potential for water (rainfall and/or discontinuous perched groundwater) to become contaminated with pollutants associated with construction activity. Contaminated water which arises from construction sites can pose a significant short-term risk to water quality for the duration of the construction if contaminated water is allowed percolate to the aquifer or accidental discharges into surface water.

Machinery activities on site during the construction phase may result in contamination of runoff into surface water. Potential impacts could arise from accidental spillage of fuels, oils, paints, cement, etc. which could impact surface water if allowed to runoff into surface water systems and/or receiving watercourses.

The potential impacts during the construction phase are required to be mitigated by ensuring best practice construction with respect to storage of any hazardous substances (fuels, chemicals and other construction materials that may pose a risk to the environment).

The project specific CEMP will set out best practice construction methodology to manage the risk of accidental spills and leaks. However, no perceptible potential impacts on the Malahide Bay Natura sites are expected given the distance from potential source (>0.67 km approx.) and low contaminant loading expected which will be attenuated diluted and dispersed to below statutory guidelines (S.I. 272/2009 and S.I. 77/2019).

Dewatering, Run-off and Sediment Loading

There is the potential for surface water run-off from site preparation, levelling, landscape contouring and excavations during the construction phase may contain increased silt levels or become polluted from construction activities. Run-off containing large amounts of silt can cause damage to surface water systems and receiving watercourses. Silt water can arise from excavations, exposed ground, stockpiles, and access roads.

Where dewatering is required during the construction phase, dirty water will be fully and appropriately attenuated, through silt bags, before being appropriately discharged to vegetation or surface water drainage feature. It is not anticipated that bedrock will be encountered during the excavation phase of this development.

Wastewater

Welfare facilities will be provided for the contractors on site during the construction works. The existing contraction compound will be utilised during construction, portable sanitary facilities will be provided with waste collected and disposed of appropriately. There are no predicted adverse impacts on wastewater during construction.

Conclusions

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of land, soils, geology, hydrogeology during the construction phase. The predicted impact on land, soils, geology, hydrogeology, and hydrology during operation is considered to be ***negative, imperceptible*** and **short-term**. There are no likely significant effects in terms of the land, soils, geology, hydrogeology, and hydrology during the construction phase and it would not warrant preparation of an EIA on these grounds.

5.3.2 Operational Phase

Increase in Hardstand and Storm Water Discharges

There would be no increase in hard standing areas with regards to the residential amenity building, as it is located over a previously proposed hard landscaped area and as such the total amount of storage required is unaltered.

Accidental Spill and Leaks

Any accidental petrol emissions or leakage in the car parks could cause localised contamination if the emissions enter the soil and groundwater environment without adequate mitigation. However, it is noted that any accidental discharge will more likely impact stormwater drainage due to the hardstand and drainage infrastructure proposed and any releases to drainage will be mitigated through petrol interceptors. In addition, the distance from any potential source to the Malahide Bay Natura Sites (>0.67 km approx.) and low contaminant loading expected will also be attenuated, diluted and dispersed to below statutory guidelines through public sewer.

Conclusions

As there is no direct pathway and proposed discharges the proposed development will not impact on the current water quality status of the Malahide Estuary under the Water Framework Directive.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of land, soils, geology, hydrogeology during the operational phase. The predicted impact on land, soils, geology, hydrogeology, and hydrology during operation is considered to be ***neutral, imperceptible and long term.*** There are no likely significant effects in terms of land, soils, geology, hydrogeology, and hydrology and it would not warrant preparation of an EIA on these grounds.

5.4 Air Quality and Climate

5.4.1 Construction Phase

Due to the low volume of construction stage traffic associated with the proposed project, there is no potential for significant impacts to air quality or climate. Impacts to air quality are considered localised, ***short-term***, and ***imperceptible***. Impacts to climate are considered ***short-term*** and ***imperceptible*** and will not impact Ireland's ability to meet its GHG targets under Regulation (EU) 2018/842.

In terms of construction dust impacts, the concern from a health perspective is focussed on particles of dust which are less than 10 microns (PM10) and less than 2.5 microns (PM2.5). With regards to larger dust particles that can give rise to nuisance dust, there are no statutory guidelines regarding the maximum dust deposition levels that may be generated during the construction phase of a development in Ireland.

The CEMP will set out minimisation measures to ensure nuisance dust arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

There is low potential for fugitive dust generation during construction due to the low sensitivity of the receiving environment and scale of the proposed works. The predicted impact of the construction works on air quality as a result of dust emissions will therefore be ***short-term*** and ***imperceptible***.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of air quality and climate during the construction phase. The potential effects on Air Quality and Climate are ***negative***, ***imperceptible,*** and ***short term*** for the construction phase. There are no likely significant effects in terms of Air Quality and Climate, and it would not warrant preparation of an EIA on these grounds.

5.4.2 Operational Phase

In relation to the operational phase of the proposed development, the proposed development will not result in any significant emissions of air quality pollutants or greenhouse gases once operational. Therefore, the impact to air quality from the operational phase of the proposed Project is expected to be imperceptible. Therefore, the predicted impact of the proposed Project on ambient air quality is deemed to be negligible.

Current EPA guidance states that a development may have an influence on global climate where it represents "a significant proportion of the national contribution to greenhouse gases" (EPA, 2003). The draft "*Guidelines On The Information To Be Contained In Environmental Impact Assessment Reports*" (EPA, August 2017) states that impacts relevant to adaptation to climate change should be assessed and that projects should be assessed in terms of their vulnerability to climate change Therefore, the impact to climate from the operational phase of the proposed Project is expected to be imperceptible in terms of national CO_2 emissions and Ireland's agreed limit under the Kyoto Protocol (Framework Convention on Climate Change, 1997, 1999) and the EU Effort Sharing Agreement ("20-20-20" Targets). The proposed Project will not result in any impacts relevant to adaptation therefore the project will not be vulnerable to climate change.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of air quality and climate during the operational phase. The above the potential effects on Air Quality are ***neutral***, ***imperceptible,*** and ***long term*** for the operational phase. There are no likely significant effects in terms of Air Quality and Climate, and it would not warrant preparation of an EIA on these grounds.

5.5 Noise And Vibration

5.5.1 Construction Phase

During the construction phase of the project there will be some impact on nearby noise sensitive properties due to noise emissions from site traffic and other activities. The application of noise limits and hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact is kept to a minimum. Also it is reiterated that any construction noise impacts will be temporary and short term in nature. Also, it is considered that as the project progresses from initial ground works that construction noise and vibration impacts will be greatly reduced.

During the construction phase it is expected that there will be some temporary impact on the nearest residential properties due to noise emissions from the plant equipment required for construction. However, given that the construction phase of the development is short term in duration, as well as the location of the development in an established industrial area, it is expected that the various noise sources will not be excessively intrusive. Furthermore, the application of binding hours of construction, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact is kept to a minimum.

The CEMP will set out minimisation measures to ensure nuisance noise arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of noise and vibration during the construction phase. On the basis of the potential effects on noise and vibration are ***negative***, ***not significant,*** and ***short term*** for the construction phase. There are no likely significant effects in terms of Noise and Vibration, and it would not warrant preparation of an EIA on these grounds.

5.5.2 Operational Phase

Building services noise / emergency site operation -- Proprietary noise and vibration control measures will be employed in order to ensure that noise emissions from building services plant do not exceed the adopted criterion at the façade of any nearby noise sensitive locations. In addition, noise emissions should be broadband in nature and should not contain any tonal or impulsive elements. The resultant noise impact is not significant.

Additional Vehicular Traffic on Public Roads -- Any change in noise levels associated with vehicles at road junctions in the vicinity of the proposed development is expected to be imperceptible. The resultant noise impact is not significant. The environmental noise survey takes account of noise emissions from existing developments. It was noted that the existing ambient noise levels in the area were dominated primarily by road traffic on the surrounding road network.

The noise criteria proposed for new building services plant items has been derived with consideration of existing site noise emissions levels to ensure that cumulative noise emissions do not exceed the relevant noise criteria. The potential cumulative noise emissions from the proposed development and neighbouring permitted EdgeConnex, Microsoft and Interexion Data Centres have been considered. Predicted cumulative plant noise emissions are within the daytime, evening and night-time limit values

The operation of the proposed development will remain consistent with the type of activity and buildings the vicinity of the proposed development site. The proposed development will be subject to compliance with any relevant noise criteria outlined in any relative planning conditions.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of noise and vibration during the operational phase. The potential effects on noise and vibration are ***neutral***, ***imperceptible***, and ***long term*** for the operational phase. There are no likely significant effects in terms of Noise and Vibration, and it would not warrant preparation of an EIA on these grounds.

The potential inward effects on noise and vibration are ***neutral***, ***not significant*** and ***long-term*** for the operational phase. There are no likely significant effects in terms of Noise and Vibration, and it would not warrant preparation of an EIA on these grounds.

5.6 Landscape and Visual Impact

A landscape and visual statement has been prepared as part of the original EIA Report. The purpose of this statement is to assess the potential landscape and visual impacts of the proposed alterations on the surrounding landscape and to determine whether these effects may be considered significant, due either to the nature, scale, extents or the location of the proposed alterations.

The site is situated to the west of the Grange Castle Business Park, separated by the R120 road to its east.

The ground levels within the site area are generally flat with a slow and gradual fall from the western edge of the site towards the north eastern corner.

The land use of the subject lands is primarily arable agricultural fields with traditional hedgerow field boundaries. The hedgerows are low and sparsely vegetated in sections. The land in the most northern section of the site contains several buildings, primarily

agricultural barns and sheds but also an abandoned farm house and a single residence to the immediate north-east boundary. The field pattern is also smaller in the northern section of the lands. Two large electricity pylons are situated in the northern section of the lands with the power cables running across the site on an east west axis.

The lands are bounded on the north by the Grand Canal public amenity and proposed Natural Heritage Area. The site is separated from the canal and towpath by a local access road and trees and vegetation along the edge of the canal. To the south and west, the site is bounded by a field boundary hedgerow beyond which are agricultural fields similar to those on the subject lands. The eastern section of the site is bounded by the recently upgraded R120 public road. There are several residences and quasi-residential properties on the opposite side of the R120 road.

In the wider context the subject site lies on the boundary between two landscape types. The environment to the east with its contrast of new built structures and historic field patterns would be considered a 'transitional landscape'. The environment to the west would be considered a traditional agricultural landscape. The landscape of the subject lands has no inherent aesthetic qualities of note. In the context of the surrounding landscape, landscape sensitivities and views the southern section of the lands would be considered of little aesthetic value. The aesthetic qualities provided are limited to the hedgerows and trees around the canal and partial views of the fields

5.6.1 Construction Phase

The construction of the proposed development will give rise to short term and substantially localised effects on landscape character. Construction activity including site clearance, movement of construction vehicles and gradual emergence of structures will give to localised alterations in existing landscape character.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of landscape and visual impact during the construction phase. Landscape and visual impact during construction will be ***short term***, ***slight*** and ***negative***. There are no likely significant effects in terms of the Landscape and Visual Impact during construction, and it would not warrant preparation of an EIA on these grounds.

5.6.2 Operational Phase

The proposed alterations to the consented development will have no additional impacts on the existing vegetation within the subject site and no additional effects on the local landscape character. It is anticipated that there will be no significant effects on the landscape character and views from the surrounding area due to the proposed amendments.

The site is specifically zoned for this type of development and there have been recent built developments of a larger scale in the local vicinity.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of landscape and visual impact during the operational phase. Landscape and visual impacts during operation will be ***long term***, ***imperceptible/ not significant*** and ***negative.*** There are no likely significant effects in terms of the Landscape and Visual Impact during operation and it would not warrant preparation of an EIA on these grounds.

5.7 Cultural Heritage and Archaeology

A programme of archaeological test excavations has been agreed with the National Monuments Service of the Department of Culture, Heritage, and the Gaeltacht, under licence 19E0038, to investigate the onsite anomalies and assess the remainder of the site. A comprehensive report outlining the results of the programme of archaeological test excavations will be prepared and will include a detailed method statement for the archaeological excavation of features identified, agreed in advance with the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht. The report will include a schedule of works detailing timeframes, personnel and logistical requirements.

Any areas that require archaeological excavation will be cordoned off to facilitate the archaeological team to carry out the excavations. A buffer zone will be agreed with National Monuments Service and no construction works will be undertaken in these areas until archaeological excavations have been completed.

Provision has been made for all costs associated with archaeological testing, any required excavations and report of the results to the standards required by the National Monuments Service of the Department. Culture, Heritage and the Gaeltacht. The remedial or reductive measures outlined here are subject to the approval of the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht.

5.7.1 Construction Phase

The construction phase of the proposed development will not impact directly on any sites included in the Record of Monuments and Places. However, geophysical survey has identified a number of potential archaeological anomalies within the site including a sub-circular enclosure in the southern portion of the site. The ground disturbance phase of the proposed development would impact negatively on any subsurface features associated within these anomalies. Archaeological testing, excavation and reporting to National Monuments Service of the Department of Culture, Heritage and the Gaeltacht will mitigate these impacts to provide a full understanding of the archaeology of the site. The present application is for an area that has already been fully stripped of topsoil under archaeological supervision and the absence of archaeological features has been confirmed. There will therefore be no impact from the proposed amendments on archaeology, cultural heritage or architectural heritage features during construction.

5.7.2 Operational Phase

No remedial or reductive measures are considered necessary during the operational phase of the proposed development, as the operational phase will not give rise to any adverse impacts. The operational phase of the proposed development is not predicted to have any impact on archaeological and cultural heritage.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of archaeology and cultural heritage during the operational phase. As the absence of features has been confirmed on the site the operational phase of the proposed development will not have any impact on archaeological, architectural or cultural heritage.

5.8 Material Assets

5.8.1 Construction Phase

Utilities: Foul Sewer, Stormwater and Potable Water

As per the extant permission, foul effluent generated from the proposed development will collected via newly constructed foul sewer network servicing the proposed site and will be discharged to the existing foul sewer along the R120, immediately east of the site. Foul water will be treated at Ringsend Wastewater Treatment Plant (WWTP) prior to discharge into Dublin Bay.

Waste and Waste Management

Other than materials necessary for the construction of the building the proposed development will not produce significant volumes of waste. All waste arising during the construction phase will be managed and disposed of in a way that ensures the provisions of the Waste Management Act 1996 and associated amendments and regulations and the Waste Management Plan. In the event, there is excess material with no defined purpose, it will be transported to an authorised soil recovery site.

Waste during construction will be managed in accordance with a project specific Construction and Demolition Waste Management Plan. It is considered that the proposed development will not have any significant impact in terms of resources or waste generation.

Traffic and Transportation

During the construction phase of the permitted and proposed development, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

An estimate of the day to day traffic movements associated with the construction activities, based on experience of similar sites, considered that the number of constructions related heavy goods vehicle movements to and from the application site will be approximately 3 arrivals/departures per hour. Similarly, the general workforce for the permitted and proposed development is unlikely to exceed approximately 50 in number, which with an allowance for shared journeys could be equate to a maximum of around 25.

This number of construction vehicle movements is low compared to the number of vehicular trips to be generated by the proposed development during the operational phase. It should be noted that the majority of such construction vehicle movements would be undertaken outside of the traditional AM and PM peak hours.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of Traffic and Transportation during the construction phase. The potential effects on Traffic and Transportation are ***negative, not significant***, and ***short term*** for the construction phase. There are no likely significant effects in terms of Traffic and Transportation, and it would not warrant preparation of an EIA on these grounds.

Conclusion

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of material assets during the construction phase. The impact on material assets during construction will be ***short-term, neutral*** and ***imperceptible***. There are no likely significant effects in terms of the material

assets during construction, and it would not warrant preparation of an EIA on these grounds.

5.8.2 Operational Phase

Utilities: Foul Sewer, Stormwater and Potable Water

Service and infrastructure have already been installed within the Grange Castle Business Park for foul water and it is proposed to connect foul water services from the proposed development to this. The foul water is connected to the off-site public sewer, which in turn discharges to the local foul drainage system and ultimately onto Ringsend Wastewater Treatment Plant.

The predicted impact of the operational phase on the environment will be in respect of Foul Sewer, Stormwater and Potable Water is ***long-term, neutral*** and ***imperceptible.***

Waste and Waste Management

The implementation of the mitigation measures outlined above will ensure that a high rate of reuse, recovery and recycling is achieved at the development during the construction phase as well as during the operational phase. It will also ensure that European, National and Regional legislative waste requirements with regard to waste are met and associated targets for the management of waste are achieved. Primarily, implementation of the C&D WMP and mitigation measures for operational waste will minimise the volume of waste requiring disposal at landfill.

A carefully planned approach to waste management and adherence to the C&D WMP during the construction phase will ensure that the impact on the environment will be neutral, short-term and imperceptible. The opportunities for waste materials to be reused off-site will provide positive impacts in the resourcing of materials for other developments and reduce the requirement for raw material extraction.

During the operational phase, of the substation minimal waste will be produced. The predicted impact of the operational phase on the environment will be neutral, long term and imperceptible

Traffic and Transportation

A number of the construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

It is not anticipated that there will be a significant change in the general workforce number due to the proposed amendments It should be noted that the majority of such vehicle movements would be undertaken outside of the traditional peak hours, and it is not considered this level of traffic would result in any operational problems

Care will be taken to ensure existing pedestrian and cycling routes are suitably maintained or appropriately diverted as necessary during the construction period, and temporary car parking is provided within the site for contractor's vehicles. It is likely that construction will have a negligible impact on pedestrian and cycle infrastructure.

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of Traffic and Transportation during the operational phase. The potential effects on Traffic and Transportation are ***neutral***, ***imperceptible***, and ***long term*** for the operational phase. There are no likely significant

effects in terms of Traffic and Transportation, and it would not warrant preparation of an EIA on these grounds.

Conclusion

It is considered that there is no significant change between the proposed amendments as compared with the consented development in terms of Traffic and Transportation material assets during the operational phase. There are no likely significant effects in terms of the material assets during operation, and it would not warrant preparation of an EIA on these grounds.

5.9 Assessment of Potential Impacts from Interactions and Cumulative Impacts

5.9.1 Interactions Summary

This section discusses the potential interactions and inter-relationships between the environmental factors discussed in the preceding sections. This section covers both the construction and operational phase of the proposed development. In accordance with the guidance not only are the individual significant impacts required to be considered when assessing the impact of a development on the environment, but so must the interrelationships between these factors be identified and assessed.

The majority of the interactions that are considered to have a neutral effect (i.e., no effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error).

There is a potential interaction between land, soil geology, hydrogeology and hydrology through poorly managed surface water run-off during the construction phase of the proposed development. The relationship between construction, dust, noise, and threat of pollution has been considered in terms of biodiversity and human health. The issue of noise, flooding, climate change and human health has been considered.

However, these are potential short-term interactions associated with the construction phase are minimised through the measures set out in the CWMP for the original parent application, these measures ensure that pollution and nuisances arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development. No impacts are likely to exacerbate the impacts on the environment from this proposed development.

In summary, the interactions between the environmental factors and impacts discussed in this EIAR have been assessed and the majority of interactions, when mitigation measures are implemented, are long-term and neutral

It is considered that there will be no likely significant interactions which would warrant preparation of an EIAR.

5.9.2 Cumulative Impacts Summary

Having regard to the necessity to take into account the criteria under Schedule 7 where relevant for the purposes of compiling the relevant information on the likely effects of the proposed development, this section provides a summary of the cumulative impacts considered throughout this EIA Screening Report.

The main permitted development within the area of for consideration is the extant permission, granted by An Bord Pleanála under Ref. ABP-305948-19. There are no likely significant environmental impacts as a result of consented scheme, and no no likely significant environmental impacts as a result of proposed amendments,. Therefore the proposed amendments in combination with the consented scheme will not result in any likely significant environmental impacts.

Mitigation is included in the project design to minimise impacts on the receiving environment. Each project currently permitted in the wider area is subject to planning conditions which include appropriate mitigation measures to minimise environmental impacts. Provided that mitigation measures for other developments are implemented as permitted, there will be no significant cumulative effects.

The site is located within the South County Dublin administrative area. The proposed development is to be located within an area zoned EE (Enterprise and Employment) under the County Development Plan with the stated aim: *"To provide for enterprise and employment related uses"*. The proposed use is a permitted use under the EE zoning.'

The site is bounded on the north by the Grand Canal public amenity and proposed Natural Heritage Area. To the south and west, the site is bounded by a field boundary hedgerow beyond which are agricultural fields similar to those on the subject lands. The eastern section of the site is bounded by the recently upgraded R120 public road. There are several residences and quasi-residential properties on the opposite side of the R120 road.

It is considered that the proposed development and the consented scheme is consistent with the existing land uses and the wider enterprise and employment land uses in the surrounding area.

Any future development proposed on the surrounding lands should be cognisant with the zoning and will be subject to EIA and/or planning conditions which include appropriate mitigation measures to minimise environmental impacts.

Based on the assessment of the environmental sensitivities in the existing environment and consideration of potential cumulative impacts, it is concluded that there are no likely cumulative environmental impacts which would warrant preparation of an EIA.

The Scott Cawley Appropriate Assessment (AA) Screening report included with this report as Appendix 1 considered that the Proposed Development, alone or in combination with other projects, is not likely to have significant effects on the European sites considered in this assessment in view of their conservation objectives.

Overall it is considered that there is no significant change between the proposed amendments as compared with the consented development during the construction phase or the operational phase. Based on the assessment of the environmental sensitivities in the existing environment and consideration of potential cumulative impacts, it is concluded that there are no likely cumulative environmental impacts which would warrant preparation of an EIA.

6. FINDINGS AND CONCLUSIONS

The purpose of this report is to provide to South Dublin County Council with the information required under Schedule 7A of the Planning and Development Regulations 2001, as amended, to enable The Board to determine in light of the criteria set out under Schedule 7 of those regulations whether the proposed development is likely to have significant

effects on the environment. If it determines that the proposed development is not likely to have significant effects on the environment, the application can be determined without an Environmental Impact Assessment Report (EIAR) having been submitted.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2 Class 10 (a) to (m) and 13 (a) .;

10. Infrastructure projects

(b)

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

On the basis of the evaluation set out in Section 2.0 an EIA for the proposed Project is not mandatory; the proposed project is considered to be a sub-threshold development and therefore the consideration made is if an EIA is required with the planning application on a discretionary basis

As the proposed development involves changes to a permitted development for which an EIA was carried out consideration has been given to Annex II (13) (a)

Annex II (13) (a)

Annex II (13) (a) Any change or extension of projects listed in Annex I or Annex II, already authorised, executed or in the process of being executed, which may have significant adverse effects on the environment.

and

(ii) result in an increase in size greater than – - 25 per cent, or - an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.

Section 3, 4 and 5 of this report considers the impacts of the proposed amendments as required by Class 13 (a).

The extension does not result in the development being of a Class listed in Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulation 2001 (as amended); therefore, an EIA is not mandatory.

AWN has considered the proposed development and assessed the potential for significant environmental effects and the need for an EIAR on a discretionary basis; this evaluation is documented Sections 3.0, 4.0 and 5.0.

To inform Article 103 (1)(a) of the Regulations, an Appropriate Assessment (AA) Screening report prepared by Scott Cawley and included with as Appendix 1 with this report. The Appropriate Assessment Screening concluded that following an examination, analysis and evaluation of the best available information, and applying the precautionary principle, the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded,. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered. Therefore, it is the professional opinion of the authors of the Appropriate Assessment 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).

The CEMP will incorporate and best practice construction methodologies for the control of dust generation, traffic. and noise, as well as the management of impacts on groundwater or the existing drainage ditches during the construction phase. Any impacts associated with dust generation, traffic, and noise will be short term.

AWN has concluded, a mandatory EIA is not required for the proposed development, and there are no likely significant environmental effects on the receiving environment for the proposed development, which would warrant preparation of an EIA. All recommended mitigation measures and standard practices will be employed throughout the construction and operation phase of the development to ensure that the proposed development will not create any significant impacts on the quality of the surrounding environment.

7. REFERENCES

[1] European Union. Environmental Impact Assessment of Projects Guidance on Screening. EU Luxembourg: 2017.

[2] European Union. Guidance on the preparation of the Environmental Impact Assessment Report. EU Luxembourg: 2017.

[3] Department of Housing, Planning and Local Government. Guidelines for Planning Authorities and An Bord Pleanala on carrying out Environmental Impact Assessment. DHPLG: 2018.

[4] Environment Protection Agency. Guidelines on the Information to be contained in Environmental Impact Assessment Reports (Draft). EPA: 2017.

[5] Ireland. Planning and Development Regulations, 2001 as amended.

[6] Geological Survey Ireland. https://www.gsi.ie/en-ie/programmes-and-projects/geohazards/activities/Pages/National-Landslide-Mapping.aspx. Accessed March 2021.

[7] Geological Survey Ireland. https://www.gsi.ie/en-ie/data-and-maps/Pages/Groundwater.aspx. Accessed April 2021.

APPENDIX 1

APPROPRIATE ASSESSMENT SCREENING REPORT

PREPARED BY SCOTT CAWLEY LTD.

scott cawley

Appropriate Assessment Screening Report

For Proposed Amendments to a Permitted Substation within the townland of Ballymakaily, West of Newcastle Road (R120), Lucan, Co. Dublin.

prepared for AWN Consulting Limited

on behalf of EdgeConneX Ireland Limited

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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 consists of amendments to the permitted electrical substation compound and structures permitted under Reg. Ref.: SD19A/0042 and ABP Ref.: 305948-19 on a site within the townland of Ballymakaily, West of Newcastle Road (R120), Lucan, Co. Dublin. The substation to which the current amendments relate will be known as the Kishoge substation.

An AA is required if 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:

- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021)
- *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 in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021)
- *Communication from the Commission on the precautionary principle* (European Commission, 2000), and

[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).

- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019)

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 objectives[3].

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).

The 'likely significant effects' test is based on the precautionary principle[4]. The precautionary principle means that, based on the most reliable available information, where there is uncertainty or doubt as to the absence of significant effects, the project cannot be screened out and an appropriate assessment must be carried out.

2.3 Desktop Data Review

The desktop data sources used to inform the assessment presented in this report are as follows (accessed on the 29th November 2021):

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie[5], including conservation objectives documents

[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*"..

[5] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2021_10 and SPA_ITM_2021_10..

- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- 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
- Scott Cawley (2019) *Provision of information regarding appropriate assessment screening proposed Data centre at Ballymakaily, Clondalkin, Co. Dublin*

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 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 comprises amendments to the permitted electrical substation compound, underground grid connection as shown in Figure 1, and structures permitted under Reg. Ref.: SD19A/0042 and ABP Ref.: 305948-19.

The proposed amendments will comprise the following:

- Amendment to the layout and extent of the permitted substation compound, to include an extension of the compound area to c. 0.77 hectares.
- Reorientation of the Gas Insulated Switchgear (GIS) substation building to a north-south orientation, and associated amendments to the building footprint, layout, and elevations, providing for a two storey building with a gross floor area (GFA) of c. 1,456 sq.m.
- Alterations to the permitted single storey Client Control Building to provide for the substitution of this structure with 5 no. single storey modular client control units, with a combined total GFA of c. 231 sq.m (GFA of c. 46.2 sq.m per module).
- Associated amendments to the permitted substation access arrangements (3 no. gated access points provided), transformers, security fencing (to be 2.6 metres high in place of the 2.4 metre fencing permitted), lighting, services, MV substation, parking, utility cabling, amendments to permitted landscaping and berms adjoining the substation compound, and associated and ancillary works.

Surface Water

As per the extant permission, surface water generated from the proposed development will be treated on site prior to discharge to the existing local drainage network which runs along the R120 and ultimately discharges into the Griffeen River. As part of the Greater Dublin Strategic Drainage Study Regional Drainage Policies (GDSDS) the proposed new surface water drainage system for the development will incorporate

surface water source control measures and Sustainable Drainage Systems (SUDS). SUDS incorporated into the proposed development will include[6]:

- Class 1 Bypass Interceptor;
- Porous asphalt permeable paving; and
- An attenuation pond, which has been designed to include biodiversity measures.

Foul Water

As per the extant permission, foul effluent generated from the proposed development will collected via newly constructed foul sewer network servicing the proposed site and will be discharged to the existing foul sewer along the R120, immediately east of the site. Foul water will be treated at Ringsend Wastewater Treatment Plant (WWTP) prior to discharge into Dublin Bay.

Figure 1: Proposed Site Layout as shown in drawing number ESSDUB98-CSE-00-XX-DR-C-2104 P03 'Proposed Site Layout and Site Levels' (Clifton Scannell Emerson Associates, 2022)

3.2 Overview of the Receiving Environment

3.2.1 European sites

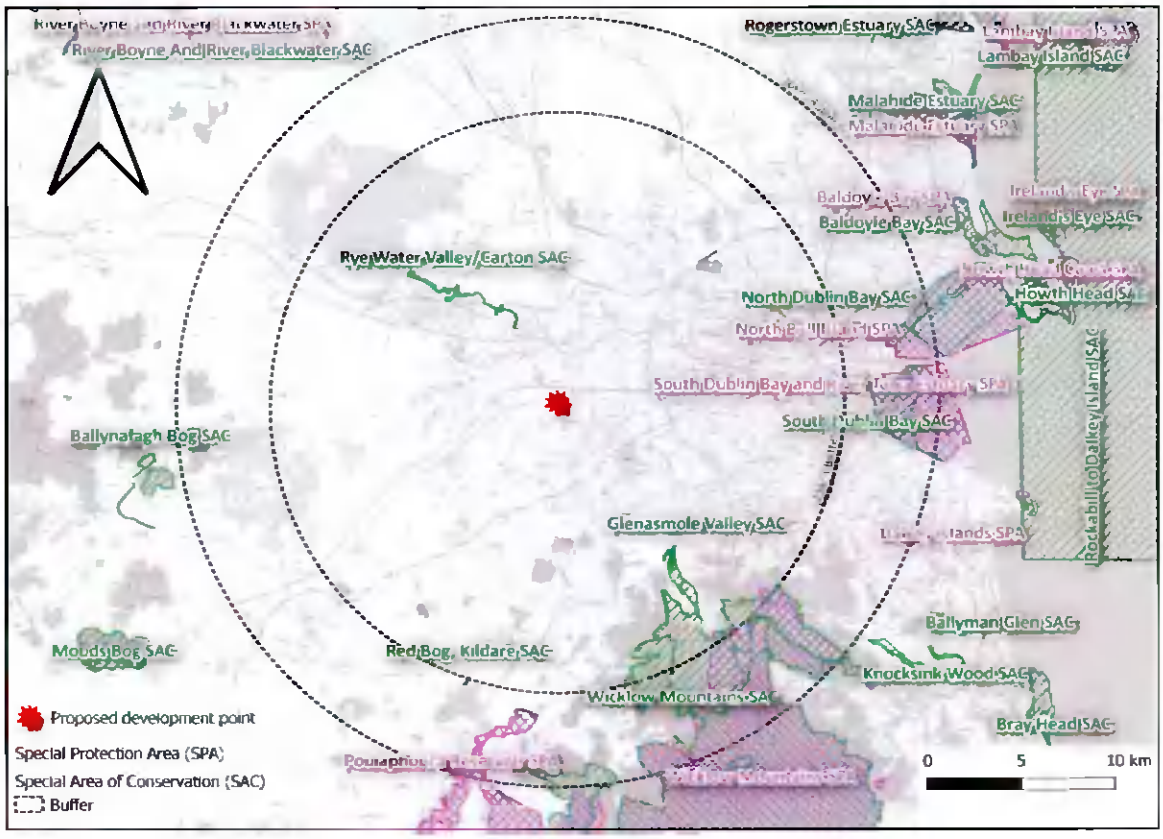
The Proposed Development site is not located within or immediately adjacent to any European site. The nearest European site to the Proposed Development is the Rye Valley/Carton SAC; *c.* 4.1km north-west. The Proposed Development site is within the Liffey catchment. There are several drainage ditches within

[6] The SUDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites.

the proposed site which converge in a ditch in the north-east of the site, and outfalls to the River Griffeen. Additionally, the Ballymakaily stream is located *c.* 136m east of the proposed development site. This stream outfalls to the River Griffeen *c.* 339m downstream which outfalls to the River Liffey *c.* 4km north of the proposed development site, which in turn discharges to the Liffey Estuary and to Dublin Bay *c.* 23.3km downstream. Therefore the Proposed Development is hydrologically connected to the following European sites 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 2 below. The QIs/SCIs of the European sites in the vicinity of the proposed development are provided in Appendix I.

Figure 2: European sites in the vicinity of the proposed development



3.2.2 Habitats

The proposed development site is located directly west of the R120 Newcastle Road, Co. Dublin (Grid Reference: O 20685, 31935). The site is presently managed for agricultural purposes, mostly comprising arable crops with some grazed pasture. Field boundaries are dominated by hedgerows and treelines with drainage ditches. The northern section of the proposed site comprises derelict buildings including farmyard sheds, outbuildings and a residential property, which are adjacent to the Grand Canal. Agricultural land extends to the south, west and immediate north, with Grange Castle Business Park occupying lands to the east.

According to the South Dublin County Development Plan (2016-2022) the site is mainly zoned as EE (Enterprise and Employment) under the County Development Plan with the stated aim "To provide for enterprise and employment related uses".

3.2.3 Flora and Fauna Species

The National Biodiversity Data Centre (NBDC) database search returned records for two protected and/or rare plant species within *c.* 2km of the Proposed Development site on the NBDC database; many-seasoned

thread-moss *Bryum intermedium* in 1857 and ribbonwort *Pallavicinia lyellii* in 1890. These records are from the same grid square, O03, in which the Proposed Development site is located in, from 1857 and 1890. These species are listed in the Flora Protection Order 2015 Schedule B (mosses) and are both listed as 'Endangered' on the *Ireland Red List No. 8: Bryophytes*[7] .

The NBDC database search did not returned any records of non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

The National Biodiversity Data Centre (NBDC) database search returned the following records of Annex II/Annex IV fauna species listed below with year of record:

- Desmoulin's whorl snail *Vertigo (Vertigo) moulinsiana* in 1945
- Marsh fritillary *Euphydryas aurinia* in 1970
- Brown long-eared bat *Plecotus auratus* in 2009
- Daubenton's bat *Myotis daubentoniid* in 2014
- Leisler's bat *Nyctalus leisleri* in 2009
- Pipistrelle species *Pipistrellus pipistrellus sensu lato* in 2009
- Soprano pipistrelle *Pipistrellus pygmaeus* in 2013
- Otter *Lutra lutra* in 1980

The nearest European sites for which Desmoulin's whorl snail is a qualifying interest is located *c.* 4.1km north-west of the proposed development site in the Rye Water Valley/ Carton SAC. According to the IUCN Red List of Threatened Species optimal habitat for Desmoulin's whorl snail *"is where water level is at or slightly above ground level for much of the year, with a good cover of tall sedges and grasses. Most often found in calcareous conditions"*[8].Given the proposed development consists of agricultural fields, mostly comprising arable crops with some grazed pasture it is considered unsuitable to support Desmoulin's whorl snail.

The nearest European sites for which marsh fritillary is a qualifying interest is located *c.* 21km west of the proposed development site in the Ballynafagh Lake SAC. The Butterfly Conservation Wales 'Marsh Fritillary in Wales: A practical guide to managing grassland for Marsh Fritillary in Wales' method's state *"All suitable and potentially suitable habitat in landscapes where the butterfly occurs should be targeted for management. Sites within 2km of occupied sites are a priority, with up to 5km being important"*[9]. If this is to be taken as the breeding range of marsh fritillary, then any marsh fritillary present within the local area would not form part of or provide a supporting role to any SAC population. In support of this, the NPWS[10] note *"adults have a short flight period in May and June and, as they do not wander far from where they emerged"*. Additionally, the site is not considered suitable for marsh fritillary, who are known to be heavily associated with the presence of its foodplant Devil's-bit Scabious, *Succisa pratensis* which is an essential

[7] Lockhart, N., Hodgetts, N. & Holyoak, D. (2012). *Ireland Red List No.8: Bryophytes*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland

[8] Moorkens,E.A.& Killeen, I.J., 2011 Killeen, I., Moorkens, E. & Seddon, M. 2012. Vertigo moulinsiana. The IUCN Red List of Threatened Species. Version 2014.2. <www.iucnredlist.org>. [Accessed 29/11/2021]

[9] Butterfly Conservation Wales 2021 'Marsh Fritillary in Wales: A practical guide to managing grassland for Marsh Fritillary in Wales' https://butterfly-conservation.org/sites/default/files/2021-09/Marsh%20Fritillary%20-%20Managing%20grassland_0.pdf [Accessed 02/12/2021]

[10]NPWS https://www.npws.ie/research-projects/animal-species/invertebrates/marsh-fritillary-euphydryas-aurinia [Accessed 02/12/2021]

habitat component[10]. Devil's-bit Scabious is not found in intensively managed lands such as the proposed development site.

None of the bat species found within the 2km custom polygon search of the NBDC are listed as a QI of any European site in Ireland. The proposed development is outside of the normal range and distribution[11] of the lesser horseshoe bat, which is the only resident bat species in Ireland that is listed on Annex II of the EU habitats directive, and for which European sites have been designated.

The nearest European sites for which European otter is a qualifying interest is located *c.* 11.1km south-east of the proposed development site in the Wicklow Mountains SAC. Otter territories are within the range of c. 7.5km for females and can reach up to 21 km for males via hydrological pathways[12]. The Liffey Estuary provide the key pathway to Wicklow Mountains SAC, whereas the proposed development will discharge into the River Griffeen. Wicklow Mountains SAC is located within a different sub-catchment (Dodder_SC_010) to the proposed development (Liffey_SC_10). As such, the hydrological pathway between the Wicklow Mountains SAC and the proposed development site is *c.* 40km meaning any populations of otter within the footprint of the proposed development site would not form part of or provide a supporting role to the SAC population.

The National Biodiversity Data Centre (NBDC) database search returned the following records of Annex I bird species listed below with year of record:

- Corn crake *Crex crex* in 1991
- Golden plover *Pluvialis apricaria* in 2011
- Kingfisher *Alcedo atthis* in 2011
- Little egret *Egretta garzetta* in 2011
- Merlin *Falco columbarius* in 1972
- Peregrine falcon *Falco peregrinus* in 2017
- Whooper Swan *Cygnus cygnus* in 2011

The nearest European sites for which corncrake is a species of special conservation interest is located *c.* 96km east in the Middle Shannon Callows SPA. The 'Corncrake Conservation Project Annual Report 2018' method's state *"To be counted in the census, a bird has either stayed in the same territory all season, or it is heard first at one location and then at another nearby, usually within 1km, but perhaps 3-5km"*[13]. If this is to be taken as the breeding range of corncrake, then any corncrake present within the local area would not form part of or provide a supporting role to any SPA population. Additionally, the site is not considered suitable for corncrake, who are known to breed in stands of tall herbaceous vegetation such as nettles *Urtica dioica* and marsh vegetation, including yellow flag iris *Iris pseudacorus* and reeds *Phragmites australis*[14,15] predominantly on the west coast of Ireland.

The nearest European sites for which European golden plover is a species of special conservation interest is located *c.* 16.1km east in South Dublin Bay and River Tolka Estuary SPA. The core range of golden plover

[11] Vincent Wildlife Trust Ireland (2021) Species Profiles – Lesser horseshoe bat https://www.vincentwildlife.ie/species/lesser-horseshoe-bat [Accessed 02/12/2021]

[12] Ó Néill, L., Veldhuizen, T., de Jongh, A. and Rochford, J. (2009). *Ranging behaviour and socio-biology of Eurasian otters (Lutra lutra) on lowland mesotrophic river systems*. European Journal of Wildlife Research: 55: 363-370.

[13] Marie Duffy (2018) The Corncrake Conservation Project Annual Report 2018 https://www.npws.ie/sites/default/files/general/corncrake-report-2018.pdf [Accessed 29/11/2021]

[14] Green, R.E. (1996) Factors Affecting the Population Density of the Corncrake *Crex crex* in Britain and Ireland. Journal of Applied Ecology, 33: 237-248

[15] Cadbury, C. J. (1980) The status and habitats of the Corncrake in Britain 1978/79. Bird Study 27: 203-218.

is 3km, with maximum range of 11km[16]. Any golden plover present within the local area would not form part of or provide a supporting role to any SPA population.

The nearest European sites for which common kingfisher is a species of special conservation interest is located *c.* 31.5km north-west of the proposed development site in River Boyne and River Blackwater SPA. Given the distance between this SPA and the proposed development site, and given kingfisher territories tend to cover at least 1km of river, but may extend over 3/5 km[17], any kingfisher present within the local area would not form part of or provide a supporting role to any SPA population.

Little egret are not listed as an SCI of any European site in Ireland.

The nearest European sites for which merlin is a species of special conservation interest is located *c.* 14.4km south-east of the proposed development site in the Wicklow Mountain SPA. Given the distance between this SPA and the proposed development site, and given the foraging range from nest site during breeding season in within 5km and distance between alternative nest sites are generally within 500m, but can be up to 1.5km[8], any merlin present within the local area would not form part of or provide a supporting role to any SPA population.

The nearest European sites for which peregrine falcon is a species of special conservation interest is located *c.* 14.4km south-east of the proposed development site in the Wicklow Mountain SPA. Given the distance between this SPA and the proposed development site, and given the core range of peregrine falcon is of 2km, with a maximum recorded distance in Britain of 18km[8], it is unlikely any peregrine falcon present within the local area would form part of or provide a supporting role to any SPA population.

The nearest European sites for which whooper swan is a species of special conservation interest is located *c.* 63.8km north-west of the proposed development site in Lough Derravarragh SPA. Given the distance between this SPA and the proposed development site, and given whooper swan core foraging range from night roost during winter is less than 5km[8], any whooper swan present within the local area would not form part of or provide a supporting role to any SPA population.

3.2.4 Hydrology

The nearest waterway is the Grand Canal which is present *c.* 135m north of the proposed development site. There is no direct hydrological connectivity between the site and the Grand Canal via the local surface water drainage network, however surface water from the proposed site may indirectly discharge to the canal over land. The Grand Canal converges with the River Liffey c. 16.5km downstream of the proposed development site in the Lower Liffey Estuary

There are several drainage ditches within the vicinity of the proposed site which converge in a ditch in the north-east of the site, and outfalls to the River Griffeen. Additionally, the Ballymakaily stream is located *c.* 136m east of the proposed development site. This stream outfalls to the River Griffeen *c.* 339m downstream which outfalls to the River Liffey *c.* 4km north of the proposed development site, which in turn discharges to the Liffey Estuary and to Dublin Bay *c.* 23.3km downstream.

The Lucan stream is located *c.* 313m west of the proposed development site. This stream outfalls to the River Liffey *c.* 4.8km downstream of the proposed development site, which in turn discharges to the Liffey Estuary and to Dublin Bay *c.* 24km downstream.

According to EPA online Envision Maps, the water quality of the surface, transitional and coastal water is as follows:

- The Water Framework Directive (WFD) water quality status for the Grand Canal is 'Not at risk';

[16] Scottish Natural Heritage (2016) Guidance: Assessing connectivity with Special Protection Areas (SPAs). Version

[17] RSPB (2021) Wildlife Guides - Kingfisher https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/kingfisher/breeding-feeding-territory/ [Accessed 29/11/2021]

- The water quality of the Ballymakaily stream is currently unknown;
- River Griffeen is classified as of "Poor" water quality status (i.e. Q3) *c.* 2.8km downstream of the proposed development site;
- The ecological status for the Lucan stream is 'Moderate' and the Water Framework Directive (WFD) water quality status is 'Good';
- The River Liffey is classified as of "Moderate" water quality status (i.e. Q3-4) *c.* 1.1km downstream of the Griffeen River confluence and c. 388m downstream of the Lucan stream confluence;
- 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 WFD surface water ecological status of the Liffey Estuary is *'Good'* and the WFD risk status of this waterbody is as "at risk of not achieving good status". Surface waters ultimately discharge into Dublin Bay. The most recent surface water quality information for Dublin Bay coastal waterbody indicates that it is *'Unpolluted'*. The water quality of Dublin Bay is considered to be *'Good'* and *'Not at risk'* of not achieving good status under the Water Framework Directive.

3.2.5 Hydrogeology

Geological Survey of Ireland (GSI) data indicates that the site is "*locally important aquifer - bedrock which is moderately productive only in local zones*". The Groundwater Body (GWB) underlying the proposed site is the Dublin GWB which is a *'poorly productive bedrock'*. According to the GSI Map Viewer, the level of vulnerability to groundwater contamination from human activities in the immediate area is deemed to be 'Extreme' with a western section of the site is located on an area of 'rock at or near the surface or karst'.

Dublin GWB WFD is currently classified as having *'Good'* status. The only European sites designated for groundwater dependent habitats/species, and which occur within the same GWB as the proposed site is the Rye Water Valley/Carton SAC [001398].

3.3 Assessment of Effects on European Sites

This section identifies all the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a 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 significant effect 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.

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

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

3.3.2 Habitat degradation as a result of hydrological impacts

Surface water run-off and discharges from the proposed development will drain to the existing local surface water drainage network. 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 will be discharged to the existing local drainage network which runs along the R120 and ultimately discharges into the Griffeen River, which will ultimately discharge into Dublin Bay.

Considering the following, the proposed development will not have any measurable effects on water quality in Dublin Bay or the Irish Sea:

- The scale and location of the proposed development relative to the receiving surface water network
- The relatively low volume of any surface water run-off or discharge events from the proposed development site relative to the receiving surface water and marine environments, and
- The level of mixing, dilution and dispersion of any surface water run-off/discharges from the proposed development site 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.

Additionally, surface water run-off and discharges from the proposed development will be treated via proposed SUDS on site prior to discharge to the existing local drainage network.

It is an objective of the Greater Dublin Strategic Drainage Study, and the South Dublin County Council Development Plan 2016-2022, to incorporate Sustainable Urban Drainage Systems (SUDS) within new developments. The SUDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites and have not been taken into account in this assessment to determine likely significant effects on European sites.

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, Dublin Bay is currently classified by the EPA as being of "Unpolluted" water quality status[18]. The Liffey Estuary Lower is currently classified by the EPA as being of "Intermediate" water quality status and the Tolka Estuary as "Eutrophic". The pollutant content of future foul water discharges to Dublin Bay is considered likely to decrease in the long-term for the following reasons:

[18] Transitional and Coastal Surface Water Quality data (2018-2020) accessed from the EPA Envision Mapviewer www.gis.epa.ie/Envision (accessed July 2021)

- An Bord Pleanála granted planning permission for an upgrade to the Ringsend WWTP in April 2019[19], which will increase capacity at the plant, and
- There is a commitment in the National Development Plan 2021-2030[20] to invest in and progress the Greater Dublin Drainage Project which includes the development of a new regional waste water treatment facility and associated infrastructure to serve Dublin and parts of the surrounding counties of Kildare and Meath. The project will involve the provision of a new regional wastewater treatment plant at a site in the northern part of the Greater Dublin Area and the provision of a new Orbital Drainage Sewer linking the new plant to the existing regional sewer network, which will enable future connections for identified areas of development within the catchment area. The provision of the Greater Dublin Drainage Project will augment the waste water treatment capacity currently provided by Ringsend WWTP across the Greater Dublin Area and alleviate pressure within the existing wider waste water network and help to ensure that the waste water generated is treated safely, in compliance with the EU and national waste water treatment regulations.

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.

Considering the above, particularly the current unpolluted status of Dublin Bay it is concluded that the proposed development will not impact on the overall water quality status of 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), Dún Laoghaire-Rathdown County Development Plan 2022-2028 (Dún Laoghaire-Rathdown County Council, 2022), 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 land use plans which could influence conditions in Dublin Bay via rivers and other surface water features.

The South Dublin County Council online planning search system[21] was consulted for the previous 3 years to generate a list of notable or applications granted permission within that period. Table 1 below documents the planning history within the vicinity of the subject site.

[19] 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.

[20] Government of Ireland (2021) *Project Ireland 2040, National Development Plan 2021-2030.*

[21] SDCC https://www.sdcc.ie/en/services/planning/planning-applications/search-and-view/ [Accessed 12/04/2022)

Table 1: Planning History within the vicinity of the Subject Site

Planning Reference	Description	Applicant	Decision and Date
SD21A/0296	Retention and completion of amendments to permitted internal road layout, internal fencing and other ancillary internal layout amendments that were permitted under SD18A/029	EdgeConnex Ireland Limited	Application Invalid 15/12/2021
SD21A/0042	Construction of two single storey data centres with associated office and service areas; and three gas powered generation plant buildings with an overall gross floor area of 24,624sq.m. An AA Screening Report was submitted with this application and concluded, on the basis of objective information that the development, either individually or in combination with other plans or projects, will not have a significant effect on any European sites.	EdgeConnex Ireland Limited	Permission Granted 19/01/2022
SD21A/0028	Construction of a 145m x 85m all-weather pitch; mesh fencing; ball stop netting; 8 16m high lighting masts; floodlights and all associated works	Lucan Sarsfield GAA Club	Permission Granted 07/04/2021

The area has been subject to several planning permissions being granted for data centres in recent years. Table 2 below contains a synopsis of these.

Table 2: Data Centre Planning Examples

Planning Reference	Description	Applicant	Decision and Date
SD19A/0004	Enabling works to facilitate the future development of the site; topsoil strip and a cut and fill operation across the site; temporary construction access will be created off the R120 to facilitate the works within the townland of Ballymakaily to the west of the Newcastle Road (R120).	EdgeConnex Ireland Limited	Granted 16/04/2019
SD16A/0176	Enabling works to facilitate the future development of the site. Enabling works will include the demolition of the existing storage and outbuildings (3,118sqm) and other temporary buildings on the site; and it's clearing as well as the diversion of existing services, including existing culvert, that traverse the site; and to level the site for future development.	EdgeConnex Ireland Limited	Granted 18/07/2016
SD16A/0214	Construction of a single storey data centre (4,435sq.m) with plant at roof level: associated support services and 6 standby generators with associated flues (each 15m high): and single storey office and loading bay (1,341sq.m) as well	EdgeConneX Ireland Ltd.	Granted 11/08/2016

Planning Reference	Description	Applicant	Decision and Date
	as an electricity sub-station (63sq.m) with a total floor area of 5,839sq.m. The development will also include ancillary site works, including attenuation tank, to connect to existing Grange Castle infrastructural services as well as fencing, signage, services road, entrance gate, 26 car parking spaces including 2 disabled car parking spaces, as well as sheltered bicycle parking. The development will be enclosed with landscaping to all frontages. An AA Screening Report was submitted with this application and concluded, there is no likelihood of any significant effects on European sites arising from the development, either alone or in combination with other plans or projects.		
SD17A/0027	Amendment of permission granted under SD16A/0345 that will relocate the temporary gas powered generation plant from lands to the rear of the Takeda Ireland complex to the east of the site, to lands to the immediate north of Phase 1 data hall and single storey office granted under SD16A/0214 and to the south of the ESB substation and transformer yard that was permitted under SD16A/0345. The relocated temporary gas-powered generation plant will be enclosed within a walled yard containing 12 generator units with associated flues (each 15m high). The development will also include new vehicular access to the temporary generator plant off the permitted service road as granted under SD16A/0214. The development will be enclosed with revised landscaping from that granted under SD16A/0214. An AA Screening Report was submitted with this application and concluded, there is no likelihood of any significant effects on European sites arising from the development, either alone or in combination with other plans or projects.	EdgeConneX Ireland Ltd	Granted 04/04/2017

It is important to note that each project currently permitted shown in the tables 1 and 2 above are subject to planning conditions which include appropriate mitigation measures to minimise environmental impacts.

The Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031[22] (Eastern & Midland Regional Assembly, 2019) includes a range of policy objectives relevant to the protection of European sites and the protection of water quality in Dublin Bay, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans (included in Appendix II).

The planning authority for the proposed development is South Dublin County Council (SDCC). Plans and developments within the administrative area of South Dublin County Council, including those listed in

[22] Eastern & Midland Regional Assembly (2019) *Regional Spatial & Economic Strategy 2019-2030*

tables 1 and 2 above, must comply with the following policy objectives of the South Dublin County Council Development Plan 2016-2022 relevant to the protection of European sites and the protection of water quality in Dublin Bay:

> HCL12 Objective 1: To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.
>
> HCL12 Objective 2: To ensure that projects that give rise to significant direct, indirect or secondary impacts on Natura 2000 sites, either individually or in combination with other plans or projects, will not be permitted unless the following is robustly demonstrated in accordance with Article 6(4) of the Habitats Directive and S.177AA of the Planning and Development Act (2000 – 2010) or any superseding legislation:
>
> 1. There are no less damaging alternative solutions available; and
> 2. There are imperative reasons of overriding public interest (as defined in the Habitats Directive) requiring the project to proceed; and
> 3. Adequate compensatory measures have been identified that can be put in place.
>
> IE Policy 1 Water & Wastewater: It is the policy of the Council to work in conjunction with Irish Water to protect existing water and drainage infrastructure and to promote investment in the water and drainage network to support environmental protection and facilitate the sustainable growth of the County.
>
> IE1 Objective 1: To work in conjunction with Irish Water to protect, manage and optimise water supply and foul drainage networks in the County.
>
> IE1 Objective 2: To work in conjunction with Irish Water to facilitate the timely delivery of ongoing upgrades and the expansion of water supply and wastewater services to meet the future needs of the County and the Region.
>
> IE Policy 2 Surface Water & Groundwater: It is the policy of the Council to manage surface water and to protect and enhance ground and surface water quality to meet the requirements of the EU Water Framework Directive.
>
> IE2 Objective 1: To maintain, improve and enhance the environmental and ecological quality of our surface waters and groundwater by implementing the programme of measures set out in the Eastern River Basin District River Basin Management Plan.
>
> IE2 Objective 3: To maintain and enhance existing surface water drainage systems in the County and promote and facilitate the development of Sustainable Urban Drainage Systems (SUDS), including integrated constructed wetlands, at a local, district and County level, to control surface water outfall and protect water quality.
>
> IE2 Objective 4: To incorporate Sustainable Urban Drainage Systems (SUDS) as part of Local Area Plans, Planning Schemes, Framework Plans and Design Statements to address the potential for Sustainable Urban Drainage at a site and/or district scale, including the potential for wetland facilities.
>
> IE2 Objective 5: To limit surface water run-off from new developments through the use of Sustainable Urban Drainage Systems (SUDS) and avoid the use of underground attenuation and storage tanks.
>
> IE2 Objective 6: To promote and support the retrofitting of Sustainable Urban Drainage Systems (SUDS) in established urban areas, including integrated constructed wetlands.

Plans and developments within the other local authority areas which could influence conditions in Dublin Bay via rivers and other surface water features, also must comply with the policies and objectives relevant to the protection of European sites and water quality. These include the Dún Laoghaire-Rathdown County

Development Plan 2022-2028, the Fingal Development Plan 2017-2023, the Dublin City Development Plan 2016-2022, the Kildare County Development Plan 2017-2023 (Kildare County Council, 2017) and the Wicklow County Development Plan 2016-2022 (Wicklow County Council, 2016). The relevant policies and objectives in those plans for the protection of European sites and water quality are included in Appendix II.

In conclusion, there are a number of projects referred to above which will upgrade the capacity of Ringsend WWTP which will, over time, address the capacity issues at Ringsend WWTP referred to above.

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, and having regard to the policies and objectives referred to under the relevant development plans, it is concluded that the possibility of any other plans or projects acting in combination with the proposed development to give rise to significant effects on any European site in, or associated with, Dublin Bay can be excluded.

3.3.3 Habitat degradation as a result of hydrogeological impacts

The proposed development lies within the Dublin Groundwater Body (Dublin GWB). The only European site within the Dublin GWB that is designated for groundwater dependant habitats and/or species is the Rye Water Valley/Carton SAC. All of the qualifying interests of the Rye Water Valley/Carton SAC, the priority Annex I habitat Petrifying springs and the two whorl snail species, are dependent upon the existing condition and functioning of the groundwater regime. Based on information published by Geological Survey Ireland (GSI) on the Dublin GWB[23], 'The general groundwater flow direction in this aquifer is towards the coast and also towards the River Liffey and Dublin City'. As the proposed development will not interact directly with the underlying groundwater body, and lies down gradient of the Rye Water Valley/Carton SAC, it cannot influence groundwater conditions in the European site.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other pans or projects, as a result of hydrogeological effects.

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

There were no records for invasive flora species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) within the indicative redline boundary of the proposed development site or within 2km of the proposed development site. Therefore, there is no risk of spread to downstream European sites.

3.3.5 Disturbance and displacement impacts

Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m[24]. 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

[23] https://secure.dccae.gov.ie/GSI_DOWNLOAD/Groundwater/Reports/GWB/DublinGWB.pdf [Accessed 29/11/2021]

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

close to background levels at that distance.[25] There are no European sites within the disturbance ZoI; the next nearest European site to the proposed development is c.15.5km away. There are also no habitat areas within the disturbance ZoI of the proposed development that support ex-situ populations of qualifying/special conservation interest species of any European site. [26]

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

3.3.6 Summary

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

As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, and taking into account the policies and objectives of the statutory plans referred to above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites.

The potential impacts of the proposed development on the receiving environment, their ZoI, and the European sites at risk of significant effects are summarised in Table 3 below. In assessing the potential for the proposed development to result in a significant effect 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.

Table 3: Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	Are there any European sites within the ZoI of the proposed development?
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	No

[25] The disturbance zone of influence for waterbirds is based on the relationship between the noise levels generated by general construction traffic/works (BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise) and the proximity of those noise levels to birds – as assessed in Cutts, N. Phelps, A. & Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance*, and Wright, M., Goodman, P & Cameron, T. (2010) Exploring Behavioural Responses of Shorebirds to Impulsive Noise. *Wildfowl* (2010) 60: 150–167. At 300m, noise levels are below 60dB or, in most cases, are approaching the 50dB threshold below which no disturbance or displacement effects would arise.

[26] There is a need to consider use of habitat areas outside of an SPA by SCI bird species where they support the SCI populations and the site's conservation objectives. These habitat areas can comprise alternative roosting sites, foraging areas, staging grounds or migration routes and can, but not necessarily exclusively, be situated within the immediate hinterland of the SPA, or in areas ecologically connected to it.

Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	Are there any European sites within the ZoI of the proposed development?
Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	There are no European sites at risk of hydrogeological effects associated with the proposed development
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the proposed development site.	No There are no European sites at risk of the spread/introduction of invasive species as a result of the proposed development
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, taking into account 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 best available information, and applying the precautionary principle, it can be concluded that the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded, for the reasons set out in Section 3.3 above. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.

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 2)

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)	
Rye Water Valley/ Carton SAC [001398] [7220] Petrifying springs with tufa formation (*Cratoneurion*)* [1014] Narrow-mouthed Whorl Snail *Vertigo angustior* [1016] Desmoulin's Whorl Snail *Vertigo moulinsiana* *S.I. No. 494/2018 - The European Union Habitats (Rye Water Valley/Carton Special Area of Conservation 001398) Regulations 2018.* NPWS (2021) *Conservation Objectives: Rye Water Valley/Carton SAC 001398*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	Located *c.* 4.1km north-west of the Proposed Development
Glenasmole Valley SAC [001209] [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6410] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [7220] Petrifying springs with tufa formation (*Cratoneurion*) *S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021* NPWS (2021) *Conservation Objectives: Glenasmole Valley SAC 001209*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	Located *c.* 9.5km south-east of the Proposed Development
Wicklow Mountains SAC [002122] [3110] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3160] Natural dystrophic lakes and ponds [4010] Northern Atlantic wet heaths with *Erica tetralix* [4030] European dry heaths [4060] Alpine and Boreal heaths [6130] *Calaminarian* grasslands of the *Violetalia calaminariae* [6230] Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [7130] Blanket bogs (* if active bog) [8110] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8210] Calcareous rocky slopes with chasmophytic vegetation [8220] Siliceous rocky slopes with chasmophytic vegetation [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [1355] *Lutra lutra* (Otter) NPWS (2017) *Conservation Objectives: Wicklow Mountains SAC 002122. Version* 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	Located *c.* 11.1km south-east of the Proposed Development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Red Bog, Kildare SAC [000397] [7140] Transition mires and quaking bogs *S.I. No. 76/2018 - European Union Habitats (Red Bog, Kildare Special Area of Conservation 000397) Regulations 2018* NPWS (2019) *Conservation Objectives: Red Bog, Kildare SAC 000397.* Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.	Located *c.* 14.9km south-west of the Proposed Development
North Dublin Bay SAC [000206] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] *Salicornia* and other annuals colonising mud and sand [1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1395] Petalwort *Petalophyllum ralfsii* [1410] Mediterranean salt meadows (*Juncetalia maritimi*) [2110] Embryonic shifting dunes [2120] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2190] Humid dune slacks *S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019* NPWS (2013) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Located *c.* 16.1km north-east of the Proposed Development
South Dublin Bay SAC [000210] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] *Salicornia* and other annuals colonising mud and sand [2110] Embryonic shifting dunes *S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019* NPWS (2013) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Located *c.* 18.5km east of the Proposed Development
Special Protection Area (SPA)	
Wicklow Mountains SPA [004040] [A098] Merlin *Falco columbarius* [A103] Peregrine *Falco peregrinus* *S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.* NPWS (2022) *Conservation objectives for Wicklow Mountains SPA [004040].* Generic Version 9.0. Department of Housing, Local Government and Heritage	Located *c.* 14.4km south-east of the Proposed Development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Poulaphouca Reservoir SPA [004063] [A043] Greylag Goose *Anser anser* [A183] Lesser Black-backed Gull *Larus fuscus* *S.I. No. 73/2010 - European Communities (Conservation of Wild Birds (Poulaphouca Reservoir Special Protection Area 004063)) Regulations 2010.* NPWS (2022) *Conservation objectives for Poulaphouca Reservoir SPA [004063].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	Located *c.* 15km south of the Proposed Development site
South Dublin Bay and River Tolka Estuary SPA [004024] [A046] Light-bellied Brent Goose *Branta bernicla hrota* [A130] Oystercatcher *Haematopus ostralegus* [A137] Ringed Plover *Charadrius hiaticula* [A141] Grey Plover *Pluvialis squatarola* [A143] Knot *Calidris canutus* [A144] Sanderling *Calidris alba* [A149] Dunlin *Calidris alpina* [A157] Bar-tailed Godwit *Limosa lapponica* [A162] Redshank *Tringa totanus* [A179] Black-headed Gull *Croicocephalus ridibundus* [A192] Roseate Tern *Sterna dougallii* [A193] Common Tern *Sterna hirundo* [A194] Arctic Tern *Sterna paradisaea* [A999] Wetland and Waterbirds *S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.* 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.	Located *c.* 16.1km east of the Proposed Development site
North Bull Island SPA [004006] [A046] Light-bellied Brent Goose *Branta bernicla hrota* [A048] Shelduck *Tadorna tadorna* [A052] Teal *Anas crecca* [A054] Pintail *Anas acuta* [A056] Shoveler *Anas clypeata* [A130] Oystercatcher *Haematopus ostralegus* [A140] Golden Plover *Pluvialis apricaria* [A141] Grey Plover *Pluvialis squatarola* [A143] Knot *Calidris canutus* [A144] Sanderling *Calidris alba* [A149] Dunlin *Calidris alpina* [A156] Black-tailed Godwit *Limosa limosa* [A157] Bar-tailed Godwit *Limosa lapponica* [A160] Curlew *Numenius arquata*	Located *c.* 18.5km north-east of the Proposed Development site

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
[A162] Redshank *Tringa totanus* [A169] Turnstone *Arenaria interpres* [A179] Black-headed Gull *Croicocephalus ridibundus* [A999] Wetlands & Waterbirds *S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.* NPWS (2015) *Conservation Objectives: North Bull Island SPA 004006*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht	

Support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Project Ireland 2040 and in increasing compliance with the requirements of the Urban Waste Water Treatment Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.

Regional Policy Objective 10.11

EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.[27]

Regional Policy Objective 10.12

Development plans shall support strategic wastewater treatment infrastructure investment and provide for the separation of foul and surface water networks to accommodate the future growth of the Region.

Regional Policy Objective 10.15

Support the relevant local authorities (and Irish Water where relevant) in the Region to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and provision at a local level of Sustainable Urban Drainage solutions.

Regional Policy Objective 10.16

Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS), including SuDS.

Regional Policy Objective 10.18

Local authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans.

Dún Laoghaire-Rathdown County Development Plan 20122-2028

Policy Objective GIB18: Protection of Natural Heritage and the Environment

It is a Policy Objective to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas (SPAs), Special Areas of Conservations (SACs), proposed Natural Heritage Areas (pNHAs) and Ramsar sites (wetlands) - as well as non-designated areas of high nature conservation value known as locally important areas which also serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive

Policy Objective GIB19: Habitats Directive

It is a Policy Objective to ensure the protection of natural heritage and biodiversity, including European Sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

Policy Objective GIB21: Designated Sites

It is a Policy Objective to protect and preserve areas designated as proposed Natural Heritage Areas, Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

Policy Objective GIB22: Non-Designated Areas of Biodiversity Importance

It is a Policy Objective to protect and promote the conservation of biodiversity in areas of natural heritage importance outside Designated Areas and to ensure that notable sites, habitats and features of biodiversity importance - including species protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992, Flora (Protection) Order, 2015, Annex I habitats, local important areas, wildlife corridors and rare species - are adequately protected. Ecological assessments will be carried out for all developments in areas that support, or have potential to support, features of biodiversity importance or rare and protected species and appropriate mitigation/ avoidance measures will be implemented. In implementing this policy, regard shall be had to the Ecological Network, including the forthcoming DLR

[27] The Greater Dublin Drainage Project, the Ringsend Wastewater Treatment Plant Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme

Wildlife Corridor Plan, and the recommendations and objectives of the Green City Guidelines (2008) and 'Ecological Guidance Notes for Local Authorities and Developers' (Dún Laoghaire-Rathdown Version 2014)

Policy Objective GIB23: County-Wide Ecological Network

It is a Policy Objective to protect the Ecological Network which will be integrated into the updated Green Infrastructure Strategy and will align with the DLR County Biodiversity Action Plan. Creating this network throughout the County will also improve the ecological coherence of the Natura 2000 network in accordance with Article 10 of the Habitats Directive. The network will also include non-designated sites.

Policy Objective EI7: Water Supply and Wastewater treatment and Appropriate Assessment

It is a Policy Objective to require that all developments relating to water supply and wastewater treatment are subject to screening for Appropriate Assessment to ensure there are no likely significant effects on the integrity, defined by the structure and function, of any European sites and that the requirements of Article 6 of the EU Habitats Directive are met. (Consistent with RPO 10.7 of the RSES).

Policy Objective EI8: Groundwater Protection and Appropriate Assessment

It is a Policy Objective to ensure the protection of the groundwater resources in and around the County and associated habitats and species in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (Groundwater) Regulations, 2010. In this regard, the Council will support the implementation of Irish Water's Water Safety Plans to protect sources of public water supply and their contributing catchment.

Policy Objective EI2: Irish Water Enabling Policies Irish Water's Plans and Programmes

It is a Policy Objective - in conjunction with the Eastern and Midland Regional Authority, where appropriate - to work with and support Irish Water in the delivery of the strategic objectives and strategic water and wastewater projects and infrastructure as set out in the 'Water Services Strategic Plan' (2015), any subsequent plan, Irish Water's Capital Investment Plan 2020 – 2024, any subsequent Capital Investment Plans and the forthcoming National Water Resources Plan, so as to ensure provision of infrastructure to service settlements in accordance with the Core Strategy of this Plan, and the settlement strategy of the RSES. (Consistent with RPO 10.2, 10.3, 10.11, 10.16 of the RSES).

Policy Objective EI5: River Basin Management Plans (RMBPs)

It is a Policy Objective: To ensure the delivery of the relevant policies and objectives of the River Basin Management Plan for Ireland 2018 – 2021 and any subsequent plan, including those relating to protection of water status, improvement of water status, prevention of deterioration and meeting objectives for designated protected sites. To support Irish Water in its implementation of Water Quality Management Plans for ground, surface, coastal and estuarine waters as part of the implementation of the EU Water Framework Directive. To support Irish Water in the development of Drinking Water Protection Plans.

Policy Objective EI6: Sustainable Drainage Systems

It is a Policy Objective to ensure that all development proposals incorporate Sustainable Drainage Systems (SuDS).

Policy Objective EI17: Water Pollution

It is a Policy Objective to implement the provisions of water pollution abatement measures in accordance with national and EU Directives and other legislative requirements in conjunction with other agencies as appropriate.

Fingal Development Plan 2017-2023

Objective NH10

Ensure that the Council takes full account of the requirements of the Habitats and Birds Directives, as they apply both within and without European Sites in the performance of its functions.

Objective NH11

Ensure that the Council, in the performance of its functions, takes full account of the objectives and management practices proposed in any management or related plans for European Sites in and adjacent to Fingal published by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective NH15

Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

Objective SW04

Require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.

Objective WQ01

Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.

Objective WQ04

Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.

Objective WT01

Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy.

Objective WT02

Liaise with Irish Water to ensure the provision of wastewater treatment systems in order to ensure compliance with existing licences, EU Water Framework Directive, River Basin Management Plans, the Urban Waste Water Directive and the EU Habitats Directive.

Dublin City Development Plan 2016 – 2022

GI23: To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

GI24: To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

GIO17: To seek the continued improvement of water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city and to protect the ecology and wildlife of Dublin Bay.

GI20: To seek continued improvement in water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city, having regard to the sensitivities of Dublin Bay and to protect the ecology and wildlife of Dublin Bay.

SI18: To require the use of Sustainable Urban Drainage Systems in all new developments, where appropriate, as set out in the Greater Dublin Regional Code of Practice for Drainage Works. The following measures will apply:

- The infiltration into the ground through the development of porous pavement such as permeable paving, swales, and detention basins
- The holding of water in storage areas through the construction of green roofs, rainwater harvesting, detention basins, ponds, and wetlands
- The slow-down of the movement of water.

Kildare County Development Plan 2017-2023
NH 4 Support the conservation and enhancement of Natura 2000 Sites including any additional sites that may be proposed for designation during the period of this Plan and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site. **NH 5** Prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the county and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive. **NH 6** Ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects and to ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest. **WQ 1** Co-operate with the EPA and other authorities in the continued implementation of the EU Water Framework Directive and assist and co-operate with the lead authority for the River Basin Management Plan(s). **WQ 2** Ensure, through the implementation of the River Basin Management Plan(s) and the associated Programmes of Measures and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters throughout the county. **WQ 6** Protect recognised salmonid water courses in conjunction with Inland Fisheries Ireland such as the Liffey catchment, which are recognised to be exceptional in supporting salmonid fish species. **WW 4** Ensure that adequate wastewater services will be available to service development prior to the granting of planning permission. Applicants who are proposing to connect to the public wastewater network should consult with Irish Water regarding available capacity prior to applying for planning permission. **WW 12** Ensure that existing and permitted private wastewater treatment plants are operated in compliance with their wastewater discharge license, in order to protect water quality.
Wicklow County Development Plan 2016-2022
NH2 No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this plan (either individually or in combination with other plans or projects). Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place. **NH3** To contribute, as appropriate, towards the protection of designated ecological sites including candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of

1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs). To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended)7 , the Birds Directive (2009/147/EC)8 , the Environmental Liability Directive (2004/35/EC)9 , the Environmental Impact Assessment Directive (85/337/EEC, as amended), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).
- National legislation, including the Wildlife Act 197610, the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011) and the European Communities (Environmental Liability) Regulations 200811.
- National policy guidelines (including any clarifying Circulars or superseding versions of same), including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010.
- Catchment and water resource management Plans, including Eastern and South Eastern River Basin Management Plan 2009-2015 (including any superseding versions of same).
- Biodiversity Plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's 2nd National Biodiversity Plan (including any superseding version of same).
- Ireland's Environment 2014 (EPA, 2014, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.

NH4

All projects and plans arising from this plan12 (including any associated improvement works or associated infrastructure) will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment where necessary, that:

1) The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or

2) The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type and / or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

3) The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

NH5

To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Wicklow.

Along with cSACs, SPAs and pNHA these include Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).

WI2

To protect existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.

WI12

Ensure the implementation of Sustainable Urban Drainage Systems (SUDS) and in particular, to ensure that all surface water generated in a new development is disposed of on-site or is attenuated and treated prior to discharge to an approved surface water system.

WI6

In order to fulfil the objectives of the Core Strategy, Wicklow County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned for development are serviced by an adequate wastewater collection and treatment system and in particular, to endeavour to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the development of a WWTP in Arklow, at an optimal location following detailed technical and environmental assessment and public consultation.

WI7

Permission will be considered for private wastewater treatment plants for single rural houses where:

- the specific ground conditions have been shown to be suitable for the construction of a treatment plant and any associated percolation area;
- the system will not give rise to unacceptable adverse impacts on ground waters / aquifers and the type of treatment proposed has been drawn up in accordance with the appropriate groundwater protection response set out in the Wicklow Groundwater Protection Scheme (2003);
- the proposed method of treatment and disposal complies with Wicklow County Council's Policy for Wastewater Treatment & Disposal Systems for Single Houses (PE ≤ 10) and the Environmental Protection Agency "Waste Water Treatment Manuals"; and
- in all cases the protection of ground and surface water quality shall remain the overriding priority and proposals must definitively demonstrate that the proposed development will not have an adverse impact on water quality standards and requirements set out in EU and national legislation and guidance documents.

WI9

Private wastewater treatment plants for commercial / employment generating development will only be considered where:

- Irish Water has confirmed the site is due to be connected to a future public system in the area6 or Irish Water have confirmed there are no plans for a public system in the area;
- it can clearly demonstrated that the proposed system can meet all EPA / Local Authority environmental criteria; and
- an annually renewed contract for the management and maintenance of the system is contracted with a reputable company / person, details of which shall be provided to the Local Authority.