Inspector's Report

ABP-308585-20

Development	Clutterland 110kV GIS Substation building and 2 underground single circuit transmission lines
Location	Grange Castle South Business Park, Dublin 22
Planning Authority	South Dublin County Council
Applicant(s)	UBC Properties LLC
Type of Application	Application under provisions of Section 182A of the Planning and Development Act, 2000 (as amended)
Observer(s)	1. Inland Fisheries Ireland 2. Health Services Executive 3. Geological Survey of Ireland 4. Transport Infrastructure Ireland
Date of Site Inspection	3rd March 2021
Inspector	Donal Donnelly

Contents

1.0 Introduction

1.1. An application under the provisions of Section 182A of the Planning and Development Act, 2000 (as amended) has been received by the Board from UBC Properties LLC seeking approval for the development of the Clutterland 110kV GIS substation and 2 no. underground single circuit transmission lines.

1.2. The applicant entered into pre-application discussions with the Board under Section 182E of the Act on 3rd September 2020. The Board issued a Direction on 23rd September 2020 that the proposed 110kV gas insulated switchgear (GIS) substation and associated works is strategic infrastructure (SID), and that a planning application should be made directly to the Board.

1.3. The purpose of the proposed development is to support the power demand for the development of three data centre buildings permitted under Reg. Reg: SD20A/1021

2.0 Site Location and Description

2.1. The subject site is located in Grange Castle South Business Park and along the realigned Nangor Road, Baldonnel, Dublin 22. The site is within the townlands of Ballybane, Aungierstown and Ballybane, Milltown, Clutterland and Grange in western Co. Dublin approximately 3.5km north-west of Newcastle and 3.8km west of Clondalkin.

2.2. Grange Castle Business Park is situated on the periphery of Dublin between the N4 and the N7. The R136 forms the eastern boundary of the business park and this road connects the N4 and N7. Nangor Road (R134) extend from east to west from the R136 and the Grand Canal continues along the northern boundary of the business park. Other features in the area include Grange Castle Golf Course to the south-east and Casement Aerodrome to the south of Grange Castle South Business Park. Adamstown is to the north of the Grand Canal.

2.3. Occupants on Grange Castle Business Park include Pfizer, Microsoft Ireland Data Centres and Microsoft Grange Castle, Grifols Worldwide Operations Ltd., Takeda Ireland Ltd., EdgeConnex Data Centre, Interxion Ireland Data Centre, and Aryzta Food Solutions and Cuisine de France. The Equinix Data Centre is situated within Kilcarbery Park to the north of Nangor Road.

2.4. The Google Data Centre is situated in Grange Castle South Business Park and to its east is Digital Reality Profile Park data centre. The CyrusOne data centre site is to the south-west of the application site within Castle Grange South Business Park.

2.5. In terms of existing electricity infrastructure affecting the proposed development, the Castlebaggot 220kV and 110kV substations are located immediately south of the current application site. The Corkagh 110kV substation is to the north of the Microsoft Complex on the northern site of Nangor Road. Other infrastructure includes the Barnakyle 110kV substation serving the Google Data Centre, the KIlmahud 110kV substation to the north of the Microsoft Data Centre to the east of Adamstown Road, the Grange Castle 110kV substation to the west of the Interxion Data Centre and the Nangor 110 kV substation within the Pfizer complex.

2.6. The subject site is located partly within an overall landholding of 16.5 hectares that is bounded to the north by the R134 New Nangor Road, to the west by the realigned Baldonnel Road, to the south by Grange Castle South Business Park access road, and to the east by Grange Castle Motor Company. The site itself comprises an area of 7.7 hectares extending roughly in a "S" shape over a distance of approximately 1,440m and varying in width from c. 30m to 130m. The main part of the site to the north of the existing substation was predominately greenfield. The strip of land that will accommodate the proposed Clutterland to Kilmahud grid connection extends to the north-west and then to the north-east adjacent the roadway and the Griffeen River. The Baldonnel Stream flows from east to west past the location of the proposed substation compound and towards the Nangor Road Baldonnel Road junction.

3.0 **Proposed Development**

3.1. Planning permission is sought for the development of 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation compound located on lands to the east and north of 3 no. data centres (SD20A/0121). The proposed GIS substation compound will comprise of the following:

- 2-storey GIS substation building with gross floor area of 1,447 sq.m. to be known as Clutterland Substation,
- Four transformers,

- Client control building with gross floor area of 380 sq.m.,
- Lighting masts,
- Car parking,
- 2.6m high fencing surrounding the compound

3.2. The proposed 110kV Clutterland substation will be connected to the existing 220 kV / 110kV Castlebaggot substation immediately to the south by a new underground single circuit 110kV transmission line over a distance of 180m. In addition, a 1.1km long underground single circuit 110kV transmission line with 3 no. joint bays will connect the Clutterland Substation to the existing Kilmahud-Corkagh circuit to the north-west. Horizontal directional drilling to a depth of approximately 6m will be required for a c. 100m section of this transmission line under the culverted Griffeen River.

3.3. A unit substation and a c.300m long 49kVa electricity connection to the Grange Castle South Business Park access road to the south will also be provided. Changes to the landscaping permitted under Reg. Ref: SD20A/0121 and to planting within Grange Castle South Business Park are proposed, together with all associated construction works and all ancillary works.

4.0 **Planning History**

South Dublin County Council Reg. Ref: SD20A/0121

4.1. Ten year permission granted to UBC Properties LCC in July 2020 for development on a 16.5 hectare site comprising the demolition of a dwelling and construction of 3 no. 2-storey data centres with total gross floor area of 80,269 sq.m. as follows:

- Two storey data centre (Building A) located to the south-west of the site (28,573sq.m. GFA) that will include 26 emergency generators with associated 25m high flues and 26 ventilation shafts (20m).
- Two storey data centre (Building B) located to the north-west of the site (21,725sq.m GFA) that will include 18 emergency generators with associated 25m high flues and 18 ventilation shafts (20m).

- Two storey data centre (Building C) which will be constructed last and will be located to the eastern part of the site (28,573sq.m. GFA) that will include 26 emergency generators with associated 25m high flues and 26 ventilation shafts (20m).
- 1 no. temporary and single storey substation (29sq.m).
- 3 no. single storey MV buildings (each 249sq.m - 747sq.m in total) which will manage the supply of electricity from the substations to each data centre and will be located to the immediate west of the generator compound within buildings A and B, and to the south of the generator compound withing building C.
- 8 no. prefabricated containerised electrical rooms (65sq.m each and 520sq.m overall) that are stacked in pairs to the immediate south of the temporary substation.
- Ancillary site development works, which will include attenuation ponds and the installation and connection to the underground foul and storm water drainage network and installation of utility ducts and cables which will include the drilling and laying of ducts and cables under Baldonnel stream.
- Other ancillary site development works including hard and soft landscaping, lighting, fencing, signage, service road, entrance gate, sprinkler tank house, security hut and 150 car parking spaces and 78 sheltered bicycle parking spaces.

4.2. The development will be enclosed with landscaping to all frontages including a wetland to the west. The development will be accessed from the Grange Castle South Access Road from the south via the Baldonnel Road.

South Dublin County Council Reg. Ref: SD20A/0283

4.3. An application was received from Microsoft Operations Ireland Ltd. on the site immediately to the east of the proposed Clutterland to Kilmahud grid connection for demolition of a dwelling and construction of a 1-4 storey central administration building (3,520 sq.m) and 2 no. 2-storey data centres (DUB14 & DUB15) with floor areas of 28,072sq.m and 28,173sq.m respectively, located to the west of data centres DUB9, DUB10, DUB12 & DUB13 with the MS complex. A small section of this site overlaps the current development site at the proposed bridge over the Griffeen River.

4.4. The proposal will also include the expansion of the existing electrical sub-station compound (originally granted under SD07A/0632) and provision of an additional western access to the MS campus (to serve the central administration building) from the Business Park estate road (including bridge over the Griffeen River) with existing temporary access to be extinguished.

4.5. Further information was requested from the applicant on 6th January 2021. One of the concerns of the Planning Authority is the proposed bridge on the Griffeen River corridor and the potential impacts of the proposed development on existing trees, hedgerows and local biodiversity, particularly the impact of the bridge crossing on riparian vegetation along the Griffeen River and the ecological corridor of the Grand Canal.

Other Cases Nearby

South Dublin County Council Reg. Ref: SD18A/0134 (ABP-302813-18)

4.6. CyrusOne Irish Data Centres Holdings Ltd. was granted permission in April 2019 on the site to the south-west for demolition of the existing single storey house and the construction of a two storey data centre and delivery bays with associated three storey office block and services that will have a gross floor area of 35,426 sq.m on an overall site of 9.2 hectares.

4.7. The development will also include a new substation with associated transformer yard and a single storey transformer building (125sq.m) that will be located to the north-east of the site.

South Dublin County Council Reg. Ref: SD16A/0088

4.8. Permission granted to Microsoft Operations Ireland Ltd. in May 2016 on the site to the north and partly adjoining the proposed 110kV Clutterland to Kilmahud grid connection for site enabling works, including demolition of existing vacant house and outbuildings, diversion of Baldonnel stream, provision of below ground attenuation and the development of 4 no. single storey data centres (DUB09, DUB10, DUB12, DUB13) located west of data centres DUB06 (existing), DUB07 & DUB08 (both granted under SD15A/0343).

South Dublin County Council Reg. Ref: SD15A/0343

4.9. Permission granted to Microsoft Operations Ireland Ltd. in January 2016 on the site to the north of the Kilcarberry Industrial Estate for the provision of 2 no. single storey data centres (DUB07 & DUB08) immediately west of existing data centre (DUB06).

South Dublin County Council Reg. Ref: SD16A/0087

4.10. Permission granted to Microsoft Operations Ireland Ltd. in May 2016 on the site to the west of the Kilcarberry Industrial Estate for site enabling works including demolition of existing vacant house and outbuildings, diversion of Baldonnell stream, provision of below ground attenuation and associated landscape works on a site of c.9.4ha.

An Bord Pleanála Ref: 06S.VA0019

4.11. Permission granted in June 2016 for the Castlebaggot 220/ 110 kV GIS substation and associated works.

South Dublin County Council Reg. Ref: SD14A/0023

4.12. Google Ireland Ltd. was granted permission in April 2014 on a site to the south-west for construction of a two storey data storage facility (30,361sq.m.), a double height warehouse building (1,670 sq.m) and a HV substation area with two buildings; 1 no. 2 storey building (968sq.m.) and 1 no. single storey building (190 sq.m) and associated site development works.

4.13. Permission was granted for alterations to the single storey substation building (increase in additional floor area of 88sq.m.) under Reg. Ref: SD14A/0284.

An Bord Pleanála Ref: ABP-309146-21

4.14. CyrusOne Irish Data Centres Holdings Ltd. has applied to the Board for 2 no. 110kV transmission lines and a 110kV GIS substation on a site to the south-west.

5.0 Legislative and Policy Context

5.1. National Framework Plan, 2018

5.1.1. The National Planning Framework provides policies, actions and investment to deliver 10 National Strategic Outcomes (NSO) and priorities of the National

Development Plan. A strong economy supported by enterprise, innovation and skills is the main NSO that pertains mostly to the proposed development. It is recognised that Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. It is an objective under this NSO to seek the *"promotion of Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities."*

5.2. Regional Spatial & Economic Strategy for the Eastern & Midland Region

5.2.1. This document is a 12-year strategic regional development framework that will facilitate the delivery of the NPF. It is a guiding principle of the Strategy for enterprise development to align to the national strategy and approach for data centres in terms of the right location for use and energy demand. Regional Policy Objective 8.25 relating to communications networks and digital infrastructure states that local authorities shall support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations.

5.3. South Dublin County Council Development Plan, 2016-2022

5.3.1. The subject site is zoned 'EE' where the objective is *"to provide for enterprise and employment related uses."* Enterprise centres, industry and public services are among the uses permitted in principle under this zoning objective. Table 11.18 sets out key principles for access and movement, open space and landscape, built form and corporate identity for development within Enterprise and Employment Zones. This includes the retention of important natural features and the provision of natural buffers, as well as building heights responding to the surrounding context.

5.3.2. Economic and Tourism (ET) Policy 3 Enterprise and Employment (EE) under Section 4.3.3 states that *"it is the policy of the Council to support and facilitate enterprise and employment uses (high-tech manufacturing, light industry, research and development, food science and associated uses) in business parks and industrial areas."* Objective 2 under this policy seeks *"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." Objective 5 seeks *"to ensure 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."*

5.3.3. Energy (E) Policy 12: Service Providers and Energy Facilities under Section 10.2.9 states that *"it is the policy of the Council to ensure that the provision of energy facilities is undertaken in association with the appropriate service providers and operators, including ESB Networks, Eirgrid and Gas Networks Ireland. The Council will facilitate the sustainable expansion of existing and future network requirements, in order to ensure satisfactory levels of supply and to minimise constraints for development."*

5.3.4. There is a 6-year roads objective for the construction of the New Nangor Road and Baldonnel Road extensions. These roads have now been completed in the immediate vicinity of the site.

5.4. Natural Heritage Designations

5.4.1. The Grand Canal proposed Natural Heritage Area is located approximately 670m north of the subject site. The Liffey Valley proposed Natural Heritage Area is c. 3.5km to the north. The Rye Water Valley/ Carton SAC (Site code: 001398) is the nearest European Site located approximately 5km north-west of the subject site.

6.0 Submissions

6.1. Planning Authority

6.1.1. South Dublin County Council's Chief Executive's Report sets out the strategic view that the proposed strategic infrastructure application will be of positive benefit for the sustainable development and economic growth of the County having regard to the provision of increased power supply to existing and proposed development lands. It is considered that the principle of the proposal is in accordance with the EE land use zoning, the current Development Plan and the proper planning and sustainable

development of the area, and that technical / operational issues should be addressed by way of further information and / or conditions in relation to transportation, water and surface water services and impact on protected species.

6.1.2. The main points of the submission are summarised as follows:

- Significant precedent exists for the establishment of this use on other EE zoned lands in the area from City West to Grange Castle – considered that the proposed development is generally in accordance with the policies and objectives of local, regional and national land use planning policy.

- SDCC Water Services advised no objection subject to conditions associated with flood risk.

- Further information requested from Irish Water to determine the feasibility of connection to the public water/ wastewater infrastructure; whether there are risks associated with the built over pipe, the loads imposed and confirmation of access; and details of measures to ensure there will be no negative impact to drinking water source during construction and operational phases.

- No objection in terms of landscape status and visual impact subject to conditions relating to the enclosure of trees, hedging and shrubs with protective fencing and prevention of construction equipment, machinery and material on site until protective fencing is in place.

- Relevant mitigation measures for landscape include consistency in boundary treatments and natural planting, potential for linear park from Grand Canal to foothills and uplands.

- Proposed heights are relatively low in comparison to permitted development in the immediate vicinity – approximately 4m lower than that permitted.

- Not considered that proposed additional buildings will substantially impact on the visual amenity of the wider area – proposed berm and planting at northern end of site will help to mitigate the visual impact.

- Bulk of traffic would be limited to construction phase with low number of maintenance movements thereafter. Construction management plan will need to be agreed with the Planning Authority prior to commencement of development and shall include construction traffic management plan for the entire development.

- Road Opening Licence must be secured from South Dublin County Council and a 7-day notice is required when traffic control measures are being used.

- Roads Department considers that the predicted impact of the development will be short-term, negative and not significant for the construction phase, and long-term, neutral and imperceptible for the operational phase.

- Other conditions are recommended relating to the closure of the temporary site access after completion of works, agreement of public and site lighting scheme, and agreement of a Construction Waste and Demolition Management Plan.

- Justification is sought for the volume of road infrastructure and road widths measuring in excess of 9m and surrounding each of the proposed structures – unnecessary tarmacadam may contribute to significant and detrimental soil sealing, which may be unnecessary in terms of access and requirements for the operation of the site. Reduction in road widths and increased landscaping would support existing species, reduce surface water run-off and support climate action.

- Nearest European Site is the Rye Water Valley / Carlton SAC located 5.2km to the north-west – deemed that Appropriate Assessment is not required as proposed development will not have a significant effect on European Sites.

- Impact of proposed development on Griffeen River and Baldonnel Stream, and a number of trees and a portion of hedgerow do not appear to be quantified.

- Proposed native woodland planting including deciduous trees and wildflower meadow is welcomed and important due to the presence of species of conservation interest in the wider area of the route of the SID, in particular bats, otter, Kingfisher and Lapwing. EIAR does not indicate that an assessment of the proposed development on these species will be carried out and what mitigation measures for the loss of ecology will be put in place.

- Environmental impact on the immediate area is considered to be significant with regards to the proposed amount of soil sealing of substantial areas of an existing greenfield site – may be mitigated through introduction of significant green infrastructure proposals and reduction of tarmacadam, along with increased planting.

- Given that lands which the proposal would service are zoned for the expansion of enterprise and employment, proposal would be within the carrying capacity of the site.

- Main concerns of Environmental Health relate to potential noise impact from both the construction and operational stages. Noise impact during construction will be short-term and should not impact greatly on any residents. Proposal is acceptable to Environmental Health Department subject to recommended standard conditions.

- Given the nature and location of the proposal, 'community gain' conditions are not necessary or warranted in this case – community gain as provided for by the proposal is sufficient.

- No contributions levied on underground works or on the provision of the 110kV substation.

6.2. South Dublin County Council's view in relation to the decision to be made by the Board is that the proposal would provide for additional electrical capacity for serviced zoned lands and permitted development. However, there are a number of outstanding issues relating to roads/ transportation, water and foul water, environment, and climate action and green infrastructure. In the event that the Board decides to grant permission, the Planning Authority sets out conditions that it considers should be attached to the decision.

6.3. **Other submissions**

Inland Fisheries Ireland

- All work should be completed in line with a project specific Construction Environmental Management Plan (CEMP), which should detail mitigation measures to deal with potential adverse impacts identified in advance of the scheme as in the Outline CEMP and should provide a mechanism for ensuring compliance with environmental legislation and statutory consents.

- All measures necessary should be taken to ensure comprehensive protection of the aquatic environment, in the first place by complete avoidance and as a secondary approach through mitigation by reduction and remedy.

- All works directly affecting watercourses or riparian habitats including temporary crossings must first be submitted for assessment and approval in the form of a detailed method statement to IFI. A detailed method statement will be required for crossing the Griffeen River by directional drilling.

- Regular inspection and maintenance of SUDS infrastructure should be a condition of any permission.

Heath Services Executive

- EHS are satisfied that there will be no risk to groundwater drinking supplies.

- EHS are satisfied that once mitigation measures are implemented in full, there will be minimal impacts on hydrology and water quality during construction, and negligible impacts during the operational phase.

- There will be adequate protection of surface water during construction and operational phases if all mitigation measures outlined in the EIAR are implemented in full.

- There is unlikely to be significant noise emissions from the operation of the cable installations or substation at the nearest noise sensitive locations. Additional noise monitoring should be carried out at noise sensitive locations once the development is operational.

- Noise due to normal operation of the proposed development shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time.

- EHS would welcome the recommendation in EIAR where it states that “during the construction phase, consideration should be given to noise monitoring at the nearest sensitive locations”. This would ensure compliance with the requirements of BS5228-1: 1:2009, Code of Practice for Noise and Vibration Control on Construction and Open Sites.

- EHS is satisfied that once implemented fully, the construction management measures outlined will mitigate any potential risk to human health from dust emissions. There are no predicted impacts to air quality or climate during the operational phase of the proposed development.

Geological Survey Ireland

- No specific comments or observations to make.

Transport Infrastructure Ireland

- No specific observations.

7.0 Assessment

7.1. Having regard to the requirements of the Planning and Development Act, 2000 (as amended), this assessment is divided into three main parts, the planning assessment, environmental impact assessment and appropriate assessment (screening). In each assessment, where necessary, reference is made to issues raised by all parties. There is an inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated but such overlaps are indicated in subsequent sections of the report.

8.0 Planning Assessment

8.1. In my opinion, the main issues to be addressed under this assessment are as follows:

- Development principle,
- Impact on local ecology,
- Design, layout and visual impacts,
- Drainage impacts.
- Other issues.

8.2. Development Principle

8.2.1. The subject site is zoned 'EE' where the objective is *"to provide for enterprise and employment related uses."* Enterprise centres, industry and public services are among the uses permitted in principle under this zoning objective. The purpose of the proposed development is to support the power demand of a data centre

development permitted under Reg. Ref: SD20A/0121 in September 2020. The principle of the permitted development has already been accepted by South Dublin County Council and the proposed development is ancillary in nature to the permitted development. The permitted and proposed developments would also fall under the uses that are permitted in principle under the enterprise and employment zoning for the site.

8.2.2. The proposed development is also in accordance with Development Plan Energy (E) Policy 12 which seeks to facilitate the sustainable expansion of existing and future network requirements, in order to ensure satisfactory levels of supply and to minimise constraints for development. Enterprise and employment uses (high-tech manufacturing, light industry, research and development, food science and associated uses) are also supported in business park and industrial areas under Policy 3 Enterprise and Employment. These policies support the development of electricity infrastructure to serve business park uses, as is the case with the proposed and permitted developments.

8.2.3. It is an objective within the National Planning Framework to seek the *"promotion of Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities."* Furthermore, it is a regional policy objective as set out in the Regional Spatial and Economic Strategy to support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations. The proposed substation and grid connection will facilitate the permitted data centre development in a cluster of existing data centres in the Grange Castle Business Park where the necessary electricity infrastructure can be put in place to support the power demands of these developments.

8.2.4. Finally, South Dublin County Council consider that the proposed development will be of positive benefit for the sustainable development and economic growth of the County having regard to the provision of increased power supply to existing and proposed development lands. It is also submitted that a significant precedent exists for the establishment of this use on other EE zoned lands in the area from City West to Grange Castle. Overall, I would be in agreement that the proposed development is generally in accordance with the policies and objectives of local, regional and national land use planning policy.

8.3. Impact on Local Ecology

8.3.1. The planning application is accompanied by an Environmental Impact Assessment Report and an Appropriate Assessment Screening Report. Ecological matters pertaining to Appropriate Assessment are covered under Section 10 and the biodiversity section of the EIA is included in Section 9.6 of this report. This section addresses local ecology issues raised in submissions to the Board. References to the EIA and relevant sections of the Appropriate Assessment Screening are included where necessary.

8.3.2. The proposed development site extends in an "S" shape over a distance of approximately 1.4km. The southern part of the site where the substation is proposed comprises former agricultural lands, and to the north of this part of the site, the Baldonnel Stream flows from east to west. The grid connection to the north of the site will pass under the former Nangor Road and under the culverted Griffeen River and realigned Nangor Road (R134) before continuing along an internal business park access road to connect to the Kilmahud-Corkagh circuit to the north of the site. Horizontal directional drilling is proposed for a 100m section of the grid connection under the culverted Griffeen River and New Nangor Road.

8.3.3. The Baldonnel Stream, which is a tributary of the Griffeen River, has been highly modified in recent years to allow for the construction of the New Nangor Road. A portion of the natural stream remains along the north-eastern part of the proposed development site and other sections have been realigned to the east and partially culverted. The Baldonnel Stream now joins the Griffeen River at the location of a culvert to the south-east of the New Nangor Road/ Baldonnel Road junction.

8.3.4. The submission by South Dublin County Council states that a number of trees and a portion of hedgerow will be removed to provide for the development, and it is considered that the impact on these items and the immediate environment do not appear to have been quantified. In particular, it is noted that an assessment of the proposed development on bats, otter, Kingfisher and Lapwing does not appear to have been carried out. It is considered that adequate mitigation measures are required to address the biodiversity impact along the route of the proposed development based on an assessment of these species.

8.3.5. From the outset, it should be noted that most of the new planting and planting removal within the site has already been authorised as part of the permitted development. Where the proposed development site overlaps the permitted development boundary, there are proposals for minor alterations to permitted trees and berms to accommodate the grid connection to the north-east of permitted Building C and north-west of Building B. There are also proposed changes to a permitted attenuation pond. These amendments are not significant in the context of the wider substantial woodland planting, including deciduous trees and wildflower meadow in this part of the proposed development site permitted under SD20A/0121.

8.3.6. The loss of the north-eastern treeline habitat along the Baldonnel Stream also forms part of the permitted development. It is noted that this will be reworked around wayleaves and strengthened with native tree planting to provide commuting and foraging corridors within the proposed development site for a range of fauna species. Foraging and resting opportunities for fauna, particularly pollinators and birds, will also continue along the permitted meadow and woodland.

8.3.7. Landscape Plan CLDHV-AA-XX-XX-DR-L-0111 shows landscaping proposals along the grid connection as it leaves the permitted development site boundary to the north-west. A small section of hedgerow will be removed where the grid connection crosses the old section of roadway. Replacement tree planting is proposed in the nearest available space. The section of hedgerow to be removed is small scale and would have once formed part of the boundary of the old road. The old roadside boundary appears to be quite fragmented.

8.3.8. The other area where existing planting will be disturbed for the proposed grid connection is to the northern side of the New Nangor Road. Planting in this area appears to be designed and typical of a business park setting. There is a small unkempt park at the point where the directional drilling will take place to the north-west of the Griffeen River culvert under the New Nangor Road. It is proposed to remove a number of willow, birch and maple trees, as well as scrub ground cover at this location to accommodate the works. Replacement planting with the same species will take place in the nearest available space.

8.3.9. Further along the proposed grid connection, a group of ten pine trees will be removed and 160m of mixed hedgerow will be impacted by the proposed works.

Replacement tree planting and native hedgerow mix will be incorporated into the grass verge.

8.3.10. Overall, I consider that the impact of the proposed development *per se* will not be significant in the context of local ecology. The mature hedgerow to be removed along the old roadway is small scale and the trees and shrubs along the grid connection are mostly within amenity grasslands that is of local importance and low value. I would also be satisfied that adequate mitigation measures are presented in the Biodiversity Section of the EIAR. Measures to enhance biodiversity for the entire site include the installation of bat and bird boxes, attenuation ponds and wetlands, woodland corridors, wildflower and meadows and the replacement of trees and hedgerow with similar species in close proximity. Other mitigation measures for biodiversity are included for the construction stage of the permitted and proposed developments. It should also be noted that a number of bird species were observed during surveys for the permitted development. A general fauna survey and a bat survey were carried out for the permitted development and a full assessment of species observed and mitigation measures are included below under the EIAR.

8.3.11. South Dublin County Council consider that the environmental impact on the immediate area is significant with regards to the proposed amount of soil sealing of substantial areas of an existing greenfield site. It is suggested that this may be mitigated through introduction of significant green infrastructure proposals and reduction of tarmacadam, along with increased planting. This is assessed in further detail below.

8.4. Design, Layout and Visual Impacts

8.4.1. Objective 5 under Policy 3 Enterprise and Employment of the Development Plan seeks *"to ensure 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."* As noted above, works affecting watercourses, trees and hedgerows relate mainly to the permitted development on site, and where planting is being removed as a result of the proposed development, replacement planting in close proximity is proposed. Amendments to planting are minor in the context of the

wider scheme and no adverse impact or further alteration to watercourses is foreseen.

8.4.2. The proposed 110kV substation compound element of the proposed development is located immediately east of the permitted data centre within the overall landholding. The 110kV substation is also adjacent to the existing 110kV/ 220kV Castlebaggott substation. The consideration of alternatives within the EIAR deemed the proposed routing of transmission lines and the location of the substation to be the most suitable from an engineering and environmental perspective. The proposed option is the shortest way of connecting to the Kilmahud-Corkagh circuit and there is limited underground connection works to the Castlebaggott substation. I note that the Planning Authority have no objection in terms of landscape status and visual impact subject to conditions relating to the enclosure of trees, hedging and shrubs with protective fencing.

8.4.3. With respect to visual impact, the proposed substation buildings will be easily integrated with their surroundings. Adjacent buildings will be of larger scale and there is already substantial electricity infrastructure in the immediate vicinity. The proposed berm and planting at the northern end of site will also help to mitigate the visual impact of the overall development, including the proposed substation. Replacement planting will compensate for the loss of existing planting in visual terms once it establishes.

8.4.4. With respect to the layout of the proposed substation compound, the Planning Authority considers that there should be justification for the proposed volume of road infrastructure surrounding each of the proposed structures. Road widths in excess of 9m are shown on the compound layout plan (Drawing No: CLDHV-HJL-00-XX-DR-A-1010), and it is considered that these surfaces may be unnecessary in terms of access and requirements for the operation of the site. Excessive hardstanding may contribute to significant and detrimental soil sealing, when a reduction in road widths could allow for increased landscaping and ecological planting that would support existing species, reduce surface water run-off and therefore support climate action.

8.4.5. Drawing No. CLDHV-CSE-00-XX-DR-C-2106 – Proposed HGV Tracking illustrates a c. 16.5m long articulated lorry circumnavigating the GIS building. However, it is

unclear if articulated lorries are required to access the site during the operational phase of the proposed development. According to the Traffic and Transport section of the EIAR, the proposed substation does not require full time staff. Weekly inspections will be carried out and more comprehensive maintenance works will take place annually overall maximum of 15 days. The proposed traffic generation (worst case scenario) during the operational phase shows a total of 4 no. light vehicles accessing the site during a 12 hour period and no heavy vehicles.

8.4.6. I also note that one-way HGV tracking is not illustrated for the access to the client control building. However, roadways in this part of the compound are also 9m wide or more. Any HGV accessing this part of the site would require reverse manoeuvring and therefore roadways are not required to be as wide for turning purposes. Similarly, an articulated lorry could manoeuvre along the sides of the GIS building in reverse gear, thereby allowing for reduced road space.

8.4.7. Having regard to the above, I consider that a condition should be attached to any grant of permission requiring the applicant to agree a revised layout with the Planning Authority prior to commencement of development showing road space within the compound reduced to an absolute minimum and the submission of proposals for replacement planting and/ or permeable surfacing.

8.5. Water and Drainage Impacts

8.5.1. A submission was received by the Planning Authority from Irish Water recommending that further information be submitted on a number of items. The applicant is required to engage with Irish Water through the submission of pre-connection enquiries and confirmation of feasibility must be submitted to the Planning Authority in relation to certain issues. In my opinion, these matters can be addressed by condition if the Board is minded to granted permission for the proposed development.

8.5.2. It is also noted that Irish Water may not have water/ wastewater infrastructure within the public road to the front of the site and a mains extension may therefore be required. In addition, further information is recommended on designs submitted to the Planning Authority; development in proximity to, or proposals to build over an Irish Water asset; presence of public water/ wastewater infrastructure in close

proximity to an existing unauthorised structure/ development; and impact on drinking water sources. Again, I consider that these are issues that can be addressed by condition and in consultation with the Planning Authority.

8.5.3. A submission was received by the Board on the planning application from Inland Fisheries Ireland. It is stated that all work should be completed in line with a CEMP, detailing measures to address adverse impacts identified in advance of the scheme as outlined in the CEMP and providing mechanisms to ensure compliance with environmental legislation and statutory consents. It is also a requirement of IFI that all works directly affecting watercourses or riparian habitats, including proposed directional drilling, must first be submitted for assessment and approval in the form of a detailed method statement to IFI. In my opinion, these matters can be addressed by way of condition. IFI also recommend that regular inspection and maintenance of SUDS infrastructure throughout the operational stage should be a condition on any permission.

8.5.4. Overall, I consider that all issues relating to impacts of the proposed development on water environments have been adequately addressed or can be dealt with by way of condition. It should be noted that South Dublin County Council Water Services had no objection subject to conditions.

8.6. Other Issues

8.6.1. ***Traffic:*** The impact of traffic and transport during the construction and operational phases of the proposed development is addressed under the Material Assets section of the EIA. It is concluded that the proposed development will not generate traffic levels during construction and operational phases that will give rise to a significant impact. The Roads Department of South Dublin County Council agrees that the predicted impact of the development will be short-term, negative and not significant for the construction phase, and long-term, neutral and imperceptible for the operational phase.

8.6.2. A number of conditions are nonetheless recommended by the Council relating to notice of traffic control measures, closure and reinstatement of temporary site access, public lighting, and construction and demolition and construction traffic

management. I agree that a condition can be attached to any grant of permission to reflect the requirements of the Roads Section in this regard.

8.6.3. ***Archaeology:*** The cultural heritage impacts of the proposed development are addressed in Section 9.8 of the EIA. At the time of my site visit, the main part of the site had been cleared of vegetation and topsoil and contained stockpiles of overburden. A recorded monument that extends into the proposed development site was subject to archaeological monitoring as part of the permitted development and has been fully preserved by record.

8.6.4. Works were also taking place along sections of the proposed grid connection to the north of the permitted development site. Most of the presently undisturbed sections of the proposed grid connection to the north of the site continue through amenity grounds associated with the business park and would have gone through ground disturbance at the time of construction of roads and associated verges. Notwithstanding this, a condition can be attached to any grant of permission requiring archaeological monitoring of topsoil stripping in all areas outside the footprint of the previously excavated areas.

8.6.5. ***Residential Amenity:*** The impact of the proposed development on residential amenity is assessed under the relevant sections of the EIA. It should be noted, however, that most of the residential properties in the area are no longer in residential use. The nearest occupied residences are located approximately 300m to the south-west and the nearest dwelling to the proposed substation is at a distance of c. 450m. There may be some minor disturbance to the occupants of these dwellings associated with the construction phase of the proposed development. I do not consider this to be a significant issue given the short-term duration of the construction period and the separation distances involved.

9.0 Environmental Impact Assessment

9.1. Introduction

9.1.1. Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) sets out development for the purposes of Part 10 and includes *"industrial estate development projects, where the area would exceed 15 hectares."* The

proposed 110kV GIS substation, underground single circuit 110kV transmission lines from the proposed substation to the existing 220kV / 110 kV Castlebaggot substation, and to the existing 110 kV underground Kilmahud-Corkagh circuit c.1.1km to the north-west, extending over an area of 7.7 hectares is required to provide a permanent power supply and will be located partly within the site of a permitted data storage facility, which has a site area of 16.5 hectares.

9.1.2. Having regard to the cumulative nature of the permitted and proposed developments within an industrial estate setting, and pursuant to the criteria set out under Schedule 5 of the Planning and Development Regulations, 2001 (as amended), an Environmental Impact Assessment Report has been prepared for the proposed 110kV GIS substation and transmission lines, which assesses the cumulative impact with the permitted data storage facility permitted under Reg. Ref: SD20A/0121.

9.1.3. Directive 2014/52/EU amending the 2011 EIA Directive was transposed into Irish legislation on 1st September 2018 under the European Union (Planning and Development) (Environmental Impact Assessment) Regulations, 2018. The EIAR was submitted on to the Board on 5th November 2020 and is therefore assessed under the provisions of the new Directive.

9.1.4. An examination has been carried out of the information presented by the applicant, including the EIAR, and the submissions made during the course of the application for approval. A summary of the results of the submissions by the Planning Authority, and prescribed bodies are set out at Section 6 of this report. The main issues raised specific to EIA can be summarised as follows:

- Impacts both positive and negative on population and human health;
- Impacts on biodiversity;
- Impacts on land in terms of change of use;
- Impacts on soils and water bodies;
- Impacts on air quality; and
- Cultural heritage and landscape impacts.

9.1.5. These issues are addressed below under the relevant headings, and as appropriate in the reasoned conclusion and recommendation including conditions.

9.1.6. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality, and that the information contained in the EIAR and supplementary information provided by the applicant, adequately identifies and describes the direct and indirect effects of the proposed development on the environment, and complies with article 94 of the Planning and Development Regulations 2000, as amended.

9.2. EIAR Content and Structure

9.2.1. The EIAR is presented in three volumes comprising the non-technical summary, the main report and appendices. In general, I consider that the content and scope of the EIAR is acceptable and in compliance with the EIAR Directive and the Planning and Development Regulations, 2001 (as amended).

9.2.2. The non-technical summary gives a concise synopsis of the EIAR and is written in language that can be easily understood. I am satisfied that the EIAR adequately describes the proposed development to include information on the site, design and size of the site. The applicant has also carried out an assessment of reasonable alternatives relevant to the proposed development and its specific characteristics. A baseline scenario with and without the proposed development is assessed and a description of the factors likely to be significantly affected by the proposed development are set out, together with any direct, indirect, secondary, cumulative, transboundary, and short-long term effects of the proposed development. A description of forecasting methods including any difficulties encountered and the main uncertainties, as well as measures envisaged to avoid, prevent, reduce or off-set significant adverse effects and any monitoring arrangements are included for both construction and operational phases. The vulnerability to risk of major accidents is also described, along with any measures to prevent or mitigate the significant adverse effects on the environment. Details of scoping consultations are included and there is an adequate list of experts who contributed to the EIAR.

9.2.3. Overall, I am satisfied that the information provided is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account current knowledge and methods of assessment.

9.3. Reasonable Alternatives

9.3.1. The EIAR must include a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, as well as an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.

9.3.2. Chapter 4 of the EIAR sets out the alternatives considered for the proposed development that resulted in the selection of the site, its design/ layout and the processes and technologies involved. Alternative mitigation is also considered, along with the 'do nothing' alternative, which would result in the permitted data centre being left without a permanent power supply. The land would therefore remain undeveloped.

9.3.3. Alternative project locations were assessed for the GIS substation, the 110kV transmission line routes and the 49kVa route. The GIS substation compound was identified as part of Reg. Ref: SD20A/0121 and alternative sites for the layout of the permitted development were considered that included the orientation of the three data centres in different arrangements. It was considered that the location of the substation at the western end of the permitted development site would have a negative visual impact at the entrance to Grange Castle South Business Park. Works have commenced with the first of the three permitted data centres and it is not deemed practicable to consider alternative locations for the proposed 110kV substation.

9.3.4. Four alternative options were considered for the proposed 110kV transmission line including two options running southwards and then westwards and northwards along roadways. These options differed slightly at the junction of the R134 and the Baldonnel Road, with Option 1 crossing west and Option 2 crossing east. The estimated length of both routes is 1.5km. Options 3 and 4 follow similar alignments over a distance of approximately 1.1km from the north of the substation, west along the R134 and north-east. Option 4 passes under the culverted Baldonnel Stream and then along the southern side of the R134 and to the east of the Baldonnel Road / R134 junction along a similar route to Option 2. Option 3 (chosen route) passes to the south of permitted landscaping and attenuation, then passes under the R134 and continues to the south-eastern side of the roadway.

9.3.5. A preliminary appraisal of the environmental impact, road closures, water crossings, road impacts, impact on residential properties and businesses, impacts on wayleaves and easements of all four options was undertaken. Options 1 & 4 were discarded due to the level of road works required and the restriction of the need to run parallel and across the 2 no. 110kV lines along New Nangor Road (R134).

9.3.6. A further appraisal of Options 2 & 3 was carried out and it was determined that Option 3 was more preferred in terms of noise and vibration and landscape and visual impact, and Option 2 was less preferred under biodiversity, noise and vibration, traffic and transportation and material assets and waste management. The differences in impact are mainly attributable to the greater length of Option 2 and the longer construction period. There are no reasonable alternatives for the connection of the proposed substation to the Castlebaggot substation immediately to the south.

9.3.7. Two alternative routes were considered for the 49kVa cable installation; however, the alternative option would have extended a distance of 1.1km. The chosen option is 300m and is contained within the permitted development site and mostly within the wayleave around the Castlebaggot substation.

9.3.8. In terms of design / layout, the flexibility to select alternatives was not available to the application given the requirements stipulated by ESB Networks to provide an efficient and safe service. Overhead lines were considered but would require corridors free of all other development. The chosen 110kV underground lines allows more power to be transmitted using less land and minimising ecological and visual impacts.

9.3.9. The flexibility for selecting alternative processes for integration into the national grid is not available to the applicant. The underground cable installations must meet EirGrid's specifications, and the design of the substation is centred around the equipment requirements of EirGrid.

9.3.10. With respect to mitigation, a comparison of environmental effects was made, and the established strategies of avoidance, prevention, reduction and off-setting have been considered. Mitigation measures have also been considered on the basis of quality, duration of impact, probability and significance of effects.

9.3.11. In general, all reasonable alternatives that are relevant to the project and its specific characteristics are clearly presented in the EIAR. The main reasons for the chosen

option and the development of the design process are set out, together with the background for the chosen layout. I would be satisfied that this section of the EIAR is sufficient to comply with the provisions of Paragraph 1(d) of Schedule 6 of the Planning and Development Regulations, 2001 (as amended) and Article 5(1) and Annex IV of Directive 2014/52/EU.

9.4. Likely Significant Effects on the Environment

9.4.1. This section of the EIA **identifies, describes and assesses** the potential direct and indirect effects of the project under each of the individual factors of the environment (population and human health; biodiversity; land, soil, water, air and climate; material assets, cultural heritage and the landscape; and the interactions between these factors). Baseline characteristics, cumulative information and an evaluation of impacts on each sensitive aspect are set out, together with mitigation measures and residual impacts.

9.5. Population and Human Health

9.5.1. Chapter 5 of the EIAR describes the general characteristics of human activity and health status in the study area. The impact of the proposed development on land use, and recent trends in population, employment and economic performance and the community is assessed, together with mitigation measures. Impact on population and human health is also considered in other sections of the EIA, e.g. noise and vibration, air quality and climate, landscape and visual and material assets.

9.5.2. A desktop survey of the county council area and the local area of available facilities was undertaken. This included a review of background studies, maps and aerial photography and Census of Population data. The subject site comprising an area of 7.7 hectares is mostly greenfield and located within the Grange Castle South Business Park. The nearest occupied dwellings are c. 300m to the south-west of the site and c. 450m from the proposed 110kV substation. A number of residences in the area have become unoccupied due to the expansion of the business park.

9.5.3. The study area comprises the Electoral Division of Clondalkin-Village, which recorded a population of 9,152 in the 2016 Census, representing a 7.8% increase

from the 2011 Census. The population with the Small Area within which the site is located was 257, declining from 270 in the 2011 Census. The small population increase in the Electoral Division and the decline in the Small Area is indicative of fact that much of the ED consists of employment zoning.

9.5.4. The Census indicated a decrease in unemployment within the ED; however, the long-term implications on employment from the Covid-19 pandemic are unclear. Much of the agricultural land in the surrounding area has been lost in recent decades due to the employment zonings and related development. Grange Castle has emerged as an important area for the creation of high end clusters based around foreign direct investment, manufacturing and support industries in a business park setting with large plots, infrastructure and landscaped setting.

Characteristics of the Proposed Development

9.5.5. The proposed development comprises the construction of a 110kV GIS substation, underground 110kV transmission line to the existing Castlebaggot Substation immediately to the south, and underground 110kV transmission line over a distance of 1.1km to the existing Kilmahid-Corkagh circuit to the north-west. The purpose of the proposed development is to support the power demand for the development of the 3 no. adjoining permitted data centre buildings.

9.5.6. The construction period is expected to take from Q2 2021 to Q4 2022 and peak staff levels during civil works will be approximately 30 workers. Normal working hours will be 07:00 to 19:00 hours Monday to Friday and 09:00 to 13:00 hours on Saturdays. A portion of the 110kV transmission line to the Kilmahud-Corkagh circuit is in the public domain and works along this section will be undertaken between 10:00 and 16:00 hours.

9.5.7. Construction works for the 110kV substation will involve site preparation works, building structure construction, building envelope construction and fit out. The 110kV transmission lines and 49kVa cable installation will include site preparation and excavation, cable installation, jointing, testing and reinstatement. Joint bays will require construction of concrete bases for electrical apparatus and fit out.

Potential Impact of the Proposed Development

9.5.8. The potential impacts of the proposed development on population and human health are summarised as follows:

- Short-term, imperceptible and positive effect on local businesses during construction phases through presence of a small number of construction staff.
- Potential cross factor effects to human health reported from topic chapters relating to air quality, noise and vibration, local amenities and tourism, additional traffic and unplanned events / health and safety:
    - Dust generation as a result of construction activities.
    - Potential for emissions from maintenance vehicles.
    - Potential for noise emission from construction plant and machinery – expected to be less than the prevailing ambient noise levels and the nearest sensitive locations.
    - Vibration impacts expected to be negligible due to the distance the site and the nearest sensitive locations.
    - No potential impact on local parks or larger amenity areas, or on local tourism or shopping amenities.
    - Potential for impact on population and human health from additional traffic during construction – any significant construction works will take place outside of the main commuter hours and at worst case, a single lane carriageway will remain operational where road works are required.
    - Potential for impact on health and safety of workers particularly during construction

Mitigation Measures

9.5.9. Potential impacts on population and human health are mitigated by the measures outlined below under air quality & climate, noise & vibration and traffic & transportation.

Residual Impacts

9.5.10. There is an overall negligible impact on population and human health

Conclusions on Population and Human Health

9.5.11. Impacts on population and human health will be short-term and not significant during the construction phase, and long-term, imperceptible and neutral during the operational phase. I am satisfied that any impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions and that no significant direct, indirect or cumulative adverse effects on population and human health are likely to arise. There will be slight positive effects on local residential and community aspects, as well as the local economy from increased employment. Furthermore, the proposed development will provide a permanent power supply to the permitted development and will support the potential for future growth outside the site, which in turn can generate employment.

9.6. Biodiversity

9.6.1. Chapter 6 of the EIAR sets out the methodology for evaluating effects on biodiversity, including identification of biodiversity receptors that could potentially be affected by the proposed development. Baseline data was collected through a desk study and field surveys were conducted on 2nd September 2020. Tracks, markings, feeding signs, droppings and direct observations of fauna were recorded and habitat was classified using the Guide to Habitats in Ireland (Fossitt, A., 2000). Bat surveys were undertaken on 27th August and 3rd September 2020 and breeding bird surveys were completed on 11th and 28th June 2019 to inform the application for the permitted development. Wintering bird surveys were carried out on 26th September, 9th & 23rd October, 8th & 19th November and 3rd December 2019 for the permitted development.

9.6.2. The receiving environment includes lands zoned as 'EE – Enterprise and Employment' within the Grange Castle South Business Park and Grange Castle Business Park. The site is located on EE zoned lands apart from unzoned sections along roadways. The lands were in agricultural use but are no longer managed and there are substantial buildings works occurring in the business parks and along new roads. The area is changing from a predominately rural agricultural character to a corporate business park setting. The nearest European Site is the Rye Water Valley

Carton SAC located c. 5km to the north-west and the nearest proposed Natural Heritage Area is approximately 670m north (Grand Canal pNHA). The site is located upstream of designated sites in Dublin Bay and in the River Liffey.

9.6.3. Most of the site to the south of the R134 comprises improved agricultural grassland (GA1). There is a depositing / lowland river (FW2) with fragmented treelines (WL2) to the north of this part of the site. To the west and north of the existing Castlebaggot Substation are small sections of scrub (WS1) and recolonising bare ground (ED3). There is also scrub either side where the site boundary crosses the R134. The northern part of the site consists of buildings and artificial surfaces (BL3) and improved amenity grasslands (GA2) along the roadway. The ecological value of the habitat type within the site is classified as being of lower importance (lower value). Fragmented treelines are classified as being of local importance (higher value) and unculverted sections of the Baldonnel Stream provides wetland habitat that is uncommon in the area and there is potential to support otter, kingfisher and grey wagtail.

9.6.4. Treelines, woodland and hedgerow in the surrounding area are considered to be suitable foraging and commuting habitats for bats. Three species of bat were recorded during surveys, mostly along the north-eastern treeline and hedgerow located within Castlebaggot Substation.

9.6.5. Records of four red-listed and nine amber-listed species of Birds of Conservation Concern in Ireland were returned within 2km within desk studies. One red listed species (meadow pipit) was recorded within breeding surveys. Buzzards were recorded flying and calling overhead throughout ecological surveys and ring plover was recorded feeding on the area cleared for archaeological surveys. Kingfisher was recorded within winter bird surveys along the stream in the proposed development site. Grey wagtail (red listed) was observed along the riverbank during winter surveys and a flock of 150 red listed lapwings were recorded feeding on the proposed development site on 14th January 2020. Yellowhammer were also recorded during winter bird surveys.

9.6.6. No signs of amphibians were noted in field surveys. There is potential for frogs to breed in the stream and wet areas.

Characteristics of the Proposed Development

9.6.7. The proposed development includes minor changes to the landscaping permitted under Reg. Ref: SD20A/0121. The permitted surface water attenuation remains largely unchanged and the minimal wastewater from the site will discharge to the existing foul drainage network.

9.6.8. Trenches for the transmission lines will be excavated to an optimal depth of 1.3m but may increase to 3.5m at utility crossings. The typical width of the trenches will be 0.85m. Horizontal directional drilling to a depth of c. 6m is proposed for a c. 100m length of the 110kV transmission line under the culverted Griffeen River. There will be four separate directional drillings c. 1m apart. The optimum trench depth for the 49kVa line will be 0.95-1m and the width will be 0.525m.

9.6.9. A 2.4m high security fence will be erected around the perimeter of the permitted development site. Lighting design will ensure that illumination levels will fall off to 0.5 lux within 2m of roadways, etc. Accesses and haul routes for vehicles, the construction compound and fencing for the permitted development will be used for the proposed development.

9.6.10. Site preparation will include clearance, excavation and levelling of the site using a combination of bulldozer, excavators, trucks and other soil shifting plant.

Potential Impact of the Proposed Development

9.6.11. The potential impacts of the proposed development on key ecological receptors are summarised as follows:

Designated Sites

- No possibility of direct habitat loss or loss of habitat that support populations of QI/ SCI populations of European Sites as a result of the proposed development.
- Proposed development will not have a measurable effect on water quality in Dublin Bay or the Irish Sea.
- Proposed development will not interact directly with the underlying groundwater body and lies down gradient of the Rye Water Valley / Carton SAC.
- There is no risk of invasive species spreading to European Sites as a result of the proposed development.

- No European Sites within the disturbance zone of influence of the proposed development.
- No significant impact on any nationally designated sites for the same reasons outlined above – no source-pathway-receptor links to Grand Canal pNHA and there is significant distance between proposed development site and other pNHAs.

Construction phase

- Potential impacts from habitat loss due to site clearance, soil-stripping and earthworks.
- Water quality impacts from surface water carrying silt, hydrocarbons or other chemicals into the Baldonnel Stream, which discharges to the River Liffey via the River Griffeen.
- Disturbance impacts from noise, dust, lighting and physical disturbance from vehicles, plant and construction staff.
- Approximately 90m of treeline habitat will be removed – in absence of mitigation, loss of this habitat is regarded as significant at a local scale only.
- During construction, surface waters carrying silt, hydrocarbons or other chemicals into the Baldonnel Stream could result in impacts on habitat quality of the stream onsite and downstream.
- Temporary lighting during construction could illuminate previously unlit feeding areas or commuting flight paths making them unsuitable to bats.
- Noise, vibration and increased human presence during construction could result in temporary disturbance to otter and reduced usage of a section of the Baldonnel Stream. However, local otter population is likely to be habituated to a degree to human and vehicle related disturbance.
- Otters are vulnerable to a water pollution incident in the Baldonnel Stream through direct contact with pollutants or indirectly by affecting their food source or prey items.
- Potential for significant impact on breeding bird populations at a local scale if site clearance (vegetation removal) is carried out during the bird breeding season.

- Noise, vibration and increased human presence during construction is likely to result in disturbance to local breeding bird populations – birds will be somewhat habituated to a degree of human and vehicle disturbance.
- Loss of former agricultural grasslands that provides suitable feeding and roosting habitat for wintering birds.
- Birds that use aquatic habitats to feed, roost or breed are vulnerable to any pollution incident in the Baldonnel Stream.
- Risk of mortality / injury to common frogs, which may arise during site clearance.
- Potential impacts during the operational phase could arise from artificial lighting, disturbance impacts from increased human presence, or water quality impacts from surface water carrying silt, hydrocarbons or other chemicals into local watercourses.
- Under a "do nothing" scenario, it is likely the site would continue to offer suitable habitat for commuting and foraging bats, nesting birds, wintering birds and feeding / commuting otter.

Mitigation Measures

9.6.12. Operational phase mitigation measures include the use of oil inceptors and forebays to remove detritus from surface water drainage and controlled release from attenuation areas to the Baldonnel Stream. Operational lighting will be designed to be sensitive to the presence of bats.

9.6.13. The following biodiversity mitigation measures are outlined for the construction phase of the proposed development:

- Implementation of CEMP by all contractors on site to ensure that stormwater and wastewater run-off are managed and will not cause an off-site environmental impact. Measures will include silt control, diversion of clean water, buffer zones, refuelling controls, etc.
- Outline Construction and Environmental Management Plan specifies a number of general pollution prevention measures, e.g. discharge licencing for newly constructed storm water systems, approved storage system for oil/ diesel, prevention

of washing out of concrete trucks on site, recording of removal of toilet or interceptor waste and cleaning of public roads.

- Invasive species on site will be appropriately controlled and eradicated using either physical or chemical control methods.

- North-eastern treeline habitat along the Baldonnel Stream to be lost as part of the construction works under the permitted development will be re-worked around wayleaves and strengthened with native tree planting – this will create commuting and foraging corridors. Woodland belt and native wildflower meadow are also permitted.

- Two of the three permitted attenuation ponds are within the footprint of the proposed development – these areas will enhance the biodiversity value of the proposed development site.

- Installation of bat and bird boxes within proposed development site included as part of the permitted development.

- Construction phase lighting designed to be sensitive to the presence of commuting and foraging bats.

- Permitted landscape strategy allows for the planting of native treelines along the western and northern boundary of the Castlebaggot substation and native woodland to the east and north – tree planting will further mitigate the effects of light spill.

- All works involving the demolition of buildings and removal of trees will be undertaken outside of the bird breeding season. Where active nests are found, works will cease until such a time that the nest becomes inactive.

- Mitigation measures under the permitted development on the proposed development site include installation of dipper / wagtail boxes and kingfisher tunnels.

- Pre-construction survey will be undertaken to determine whether breeding common frogs are present. Any capture and translocation works will be undertaken immediately in advance of site clearance / construction works.

Residual Impacts

9.6.14. There is no potential for residential impacts on designated sites, habitats and flora, bats, otter and common frog. Residual impacts on breeding birds include temporary

displacement during construction and vegetation clearance. No long-term significant impacts are predicted on breeding birds. Residual impacts for wintering birds includes the loss of agricultural grassland habitat.

Conclusions on Biodiversity

9.6.15. The proposed development will be located in an area of low ecological value and within a business park setting where existing development is taking place. Species on site are therefore habituated to a certain level of human disturbance. There are no designated sites is proximity to the site and no potential for measurable effects on any downstream designated sites.

9.6.16. Overall, I consider that the EIAR has adequately assessed the impact of the proposed development on biodiversity and the cumulative impacts of the adjoining permitted development. I am satisfied that with proper implementation of mitigation and best practice measures, together with implementation of environmental commitments under the Construction and Environmental Management Plan, no significant direct, indirect or cumulative adverse effects on water quality, habitats and species are likely to arise.

9.7. Land, Soil, Water, Air and Climate

9.7.1. This assessment deals separately with the above environmental factors as they appear in the EIAR. Chapter 7 of the EIAR addresses land, soil, geology and hydrogeology and Chapter 8 deals with hydrology. Noise and vibration are covered under Chapter 9 and air quality and climate and included under Chapter 10.

9.7.2. The topography of the site ranges from 75m OD in the south-east to c. 65m OD in the north-west. The site has been in agricultural use up until recent years. The soil type underlying the site is composed of mainly basic poorly drained soils and mainly basic well drained soils. Glacial till is the common soil cover in the region. Bedrock geology underlying the site and surrounding area is dominated by rocks of the Carboniferous Age and the bedrock aquifers are classified as locally important with extreme and high vulnerability. Local groundwater flow is expected to be to the north and the Dublin Groundwater Body is not at risk. Site investigation sampling was also carried out on site showing topsoil over the site underlain by sandy gravelly clay and limestone bedrock. There are no sensitive receptors in the surrounding area such as

groundwater-fed wetlands, council water supplies/ group water schemes or geological heritage sites.

9.7.3. In terms of land take, there will be a loss of agricultural land resulting from the proposed development; however, the site is zoned for enterprise and employment and is due for development. Much of the lands surrounding the site have recently been developed for data centres and other industrial development.

9.7.4. The site is within the sub-catchment of the Griffeen River and Baldonnel Stream which are tributaries of the River Liffey. The Baldonnel Stream flows east to west to the north of the location of the proposed substation and the Griffeen River is located to the north-west along the proposed grid connection. The EPA classifies the Griffeen River as being 'at risk' and the overall quality status for the Griffeen Lower was 'bad'.

9.7.5. As part of the application for the permitted development, a flood study for the area of the proposed development indicated that it is within the 1% AEP Flood Event (1 in 100 year). Compensatory flood storage will be incorporated within the proposed development site.

9.7.6. With respect to air quality and in particular noise and vibration, overall acceptable levels of construction noise and vibration are set out in the Transport Infrastructure Ireland publication "Guidelines for the Treatment of Noise and Vibration in National Road Schemes". Four noise sensitive location were selected around the site and the maximum noise levels at the proposed development site in terms of day to day works during stated construction hours will be 70dB $L_{Aeq, 1hr}$ at these noise sensitive locations and 75dB $L_{Aeq, 1hr}$ at commercial property. In exceptional instances, the relevant evening (60 dB $L_{Aeq, 1hr}$) and night-time (50 dB $L_{Aeq, 1hr}$) criteria will apply. Road traffic noise was noted as the most significant source of noise and typically dictated ambient noise levels.

9.7.7. The Air Quality Standards Regulations, 2011 incorporates Directive 2008/50/EC, which sets limit values for a number of pollutants relevant to this assessment. The TA-Luft standard has been applied for this assessment as a standard for dust deposition. New national emissions reduction commitments for certain atmospheric pollutants are also established under Directive (EU)2016/2284. The Climate Action Plan, 2019 outlines the various broadscale measures are required for key sectors,

including electricity, transport, built environment, industry and agriculture to achieve ambitious decarbonation targets.

Characteristics of the Proposed Development

9.7.8. The activities associated with the construction phase of the proposed development on land, soils, geology and hydrogeology include run-off percolating to ground; earthworks including cut and fill, excavations, subsoil stripping and stockpiling; storage of hazardous materials; and import and export of materials. During the operational phase, there will be an increase in hardstanding areas altering local recharge. Diesel will also be stored on site for supply of the back-up generator for the proposed substation.

9.7.9. The Baldonnel Stream has been realigned along the southern edge of the Nangor Road at surface before it enters a culvert to outfall to the River Griffeen. Stormwater run-off from the site will pass through gullies and an oil separator to permitted attenuation ponds before out-falling to the Baldonnel Stream. The construction of forebays will allow small intensity rainfall events to be stored separate from the main waterbody. There is capacity within the permitted attenuation design to accommodate run-off from the proposed development.

9.7.10. Methodology for the laying of the 1.1km underground grid connection will include trench digging and laying of approximately 120m of cable per day; installation of clay plugs at 50m intervals to prevent trenches from becoming a conduit for surface water; loading of excavated material and transportation to stockpiles; placing of ducting in trench on base layer; installation of binding above ducting; and backfilling of trench and reinstatement.

9.7.11. An amount of soil will be generated as part of the construction works. Infilling and landscaping will also be undertaken and there will be temporary storage of construction materials. Construction traffic will emit a certain level of air pollutants and greenhouse gases.

Potential Impact of the Proposed Development on Land, Soil, Geology and Hydrogeology and Hydrology

9.7.12. The following impacts are applicable to **land, soils, geology, and hydrogeology** as well as surface water (**hydrology**):

Construction

- Excavation of soil will be required for levelling of the site for substation platform – will not change the vulnerability category of the site which is already high to extreme.
- No contamination or existing hazardous substances on site and no treatment of any water will be required during construction works.
- Local removal and reinstatement of soil during trenching for cable works will not change the overall vulnerability as excavations are shallow in depth.
- Potential for rainfall and/ or groundwater to become contaminated with pollutants associated with construction activity – include potential for suspended solids arising from ground disturbance, cement/ concrete arising from construction materials, hydrocarbons from accidental spillages and wastewater.
- Potential for slight increase in run-off due to introduction of impermeable surfaces and compaction of soils reducing the infiltration capacity and increasing the rate and volume of run-off.
- Some removal of perched rainwater from excavation may be required – volumes will be quite low, and all pumped water will be subject to onsite settlement before release.

Loss of agricultural land

- There will be loss of agricultural soil; however, the land has not been used for agriculture for a number of years and area is small in the context of overall available land in the area.

Operational Phase

- Potential for leaks and spillages for fuel storage and from vehicles along access roads, loading bays and parking areas contaminating soil and groundwater.
- Rainwater run-off from substation roof will be collected in stormwater drainage channels and diverted to the permitted stormwater attenuation basin – designed to accommodate surface water drainage from the proposed development.
- Hydrobrake flow control systems will be used to achieve required discharge rates.

Mitigation Measures for on Land, Soil, Geology and Hydrogeology and Hydrology

- CEMP sets out requirements and standards that must be met during the construction stage and will include the relevant mitigation measures outlined in the EIAR and subsequent planning conditions.
- Proposed development will incorporate reduction, reuse and recycle approach in terms of soil excavation on site.
- Excavation works will be carefully monitored for any potentially contaminated soils, which will be segregated and removed to an authorised waste facility.
- Effects of stripping and stockpiling will be mitigated against through implementation of an appropriate earthworks handling protocol. Anticipated that there will be no direct link or pathway from stockpiles to any surface waterbody.
- Soils to be removed off site will be correctly classified for transportation and recovery/ disposal offsite.
- All fill and aggregate will be sourced from reputable suppliers.
- Measures to prevent any spillages that may result in impacts to soils/ groundwater include designation of bunded refuelling areas, provision of spill kits and appropriate measures where mobile fuel bowsers are used.
- Measures for use of drummed fuel include secure storage and clear labelling of all containers, use of quality approved drums, use of oil spill pallets, and loading and unloading of drums by trained personnel using appropriate equipment.
- Earthwork operations will be carried out on surface with adequate drainage, falls and profile to control run-off and prevent ponding and flowing – will ensure that there is minimal inflow of shallow/ perched groundwater into any excavation.
- Care will be taken to ensure that soil surfaces are stable to minimise erosion.
- All run-off will be prevented from directly entering into any watercourses/ drainage ditches.
- Silt reduction measures will include silt fencing, settlement measures (silt traps, 20m buffer between machinery and watercourses, refuelling of machinery off site) and hydrocardon interceptors.

- Weather conditions will be considered when planning construction activities to minimise risk of run-off from the site during construction.
- All ready-mixed concrete will be brought to the site by truck and suitable risk assessment for wet concrete will be put in place to prevent discharge of alkaline wastewater or contaminated stormwater.
- Horizontal drilling beneath culverted section of Griffeen River will ensure no impact on existing river hydraulics.
- Provision of spill kit facilities and training of operatives in use of same for diesel tank for back-up generator.
- Reduction of local recharge of the aquifer from increased hardstanding will have no significant impact on the natural hydrogeological regime.
- Implementation of Environmental Safety and Health Management System by operator

Residual Impacts for on Land, Soil, Geology and Hydrogeology and Hydrology

9.7.13. Residual impacts during construction and operational phases will be short-term, imperceptible and neutral. A reduction in the area of road space within the substation compound will decrease the impermeable surfacing on site and reduce run-off during the operational phase.

Potential Impact of the Proposed Development on noise and vibration

9.7.14. The potential impacts on **noise and vibration** are summarised as follows:

- Construction works associated with cable laying will be the dominant source of noise at the nearest noise sensitive locations when they occur – equipment associated with the cable laying will be expected to be within 20-30m of a specific property for a maximum of 6 hours giving rise to a brief significant impact.
- Contractor will advise residents in advance of the date, time and expected duration of works.
- Noise levels from construction plant are within the weekday construction noise limit values at distances of 20m or greater from the works – all noise sensitive properties in the vicinity are at a distance greater than 100m.

- Other construction activity is at sufficient distance from a significant proportion of the cable works, so that when they occur at the same time, cumulative issues would not be a material issue.
- Specifically high impact activities will not be permitted during night-time hours.
- Review of predicted increases in noise levels from the permitted and proposed development in day to day and emergency operating scenarios at the nearest noise sensitive locations conclude that the associated impact is not significant or imperceptible.

Mitigation Measures for Noise and Vibration

- Various measures will be applied during construction including the limitation of hours during which site activities are likely to create high levels of noise or vibration; establishing channels of communication; appointing site representatives; all access roads will be kept even to mitigate the potential for vibration from lorries.
- Selection of plant with low inherent potential for generation of noise / vibration.
- Erection of barriers around items such as generators or high duty compressors.
- Situation of noisy plant as far away from sensitive properties as permitted by site constraints.
- Potential cumulative noise emissions from the permitted development, proposed development and neighbouring Google Data Centre and Cyrus One Data Centre have been considered. Cumulative construction noise will effectively be masked by existing traffic noise at the nearest noise sensitive locations. During operation, the cumulative noise impact will be negative, not significant and long-term.

Residual Impacts for Noise and Vibration

9.7.15. There are no significant impacts at the closest noise sensitive locations subject to implementation of mitigation measures.

Potential Impact of the Proposed Development on Air Quality and Climate

9.7.16. The potential impacts on **Air Quality and Climate** are summarised as follows:

- Greatest potential for impacts on air quality during construction is from dust emissions and dust nuisance.
- Level of dust emission from earthworks can be classified as medium as a worst case scenario. Dust emission magnitude from construction and track out can be classified as small.
- There is potential for greenhouse gas emissions to the atmosphere during construction – considered to be imperceptible and short-term.
- Operational stage impacts on air quality and climate are predicted to be imperceptible and long-term.

Mitigation measures for Air Quality and Climate

- Management plan has been formulated for dust control based on best practice guidance.
- CEMP will set out an overarching vision of how the construction of the proposed development will be managed in a safe and organised manner by the contractor.
- Good site management through good design and effective control strategies to avoid dust becoming airborne at source.
- Pro-active control of fugitive dust will prevent significant emissions rather than attempting to control them once released.
- Specification of a site policy on dust and the identification of the site management responsibilities for dust issues.
- Development of a documented system for managing site practices with regards to dust control.
- Development of a means by which the performance of the dust minimisation plan can be regularly monitored and assessed.
- Specification of effective measures to deal with any complaints received.

Residual Impacts for Air Quality and Climate

9.7.17. Fugitive emissions of dust and particulate matter from the site will be short-term and imperceptible in nature, posing no nuisance to nearby receptors. Mitigation

measures will ensure that the proposed development complies will all EU ambient air quality legislative limit values.

9.7.18. The potential impact for climate change and transboundary pollution from the proposed development is deemed to be short-term and imperceptible in relation to Ireland's obligations under the EU 2020 target. The operational phase of the proposed development will be neutral for both air quality and climate.

Conclusions on Land, Soil, Water, Air and Climate

9.7.19. The main potential effects to land relate to the change from former agricultural use to enterprise and employment use, which is in accordance with the zoning objective for the site and surrounding lands. The site is underlain by sandy gravelly clay and limestone bedrock and there are no sensitive receptors such as groundwater-fed wetlands, group water schemes or geological heritage sites. The Baldonnel Stream flows to the north of the location of the proposed substation and the Griffeen River is located to the north-west along the proposed grid connection. Stormwater run-off from the site will pass through gullies and an oil separator to permitted attenuation ponds before out-falling to the Baldonnel Stream. Hydrobrake flow control systems will be used to achieve required discharge rates.

9.7.20. The main activities associated with the construction phase of the proposed development that can give rise to potential impacts include run-off percolating to ground, contaminants in surface water, earthworks, excavations, subsoil stripping and stockpiling, storage of hazardous materials and import and export of materials. An increase in hardstanding areas during the operational phase may also alter local recharge. The CEMP sets out requirements and standards that must be met during the construction stage and will include the relevant mitigation measures outlined in the EIAR and subsequent planning conditions. This will include measures to prevent impacts to soil/ groundwater and surface water such as silt fencing, settlement measures and buffer areas. A reduction in the area of road space within the substation compound will decrease the impermeable surfacing on site and reduce run-off during the operational phase.

9.7.21. Construction works associated with cable laying will be the dominant source of noise at the nearest noise sensitive locations. The greatest potential for impacts on air quality is from dust emissions and dust nuisance during construction. The CEMP will

set out an overarching vision of how the construction of the proposed development will be managed in a safe and organised manner by the contractor. Various measures will be applied to control noise and dust emissions including the establishment of channels of communication, weather monitoring, limitation of construction hours and procedures for dealing with any complaints.

9.7.22. Overall, I consider that the impacts on land, soil, water, air and climate would be avoided, managed and/ or mitigated by the design and measures that form part of the proposed development and by a reduction in the road space around the substation compound. Taken with other developments in the wider areas, the cumulative effects of the proposal are not likely to be significant to an extent that might warrant a refusal of the proposed development. Environmental Health Services are satisfied that once mitigation measures are implemented in full, there will be minimal impacts on hydrology and water quality during construction, and negligible impacts during the operational phase.

9.8. Cultural Heritage and the Landscape

9.8.1. Chapters 11 and 12 of the EIAR describe the general characteristics with respect to landscape and cultural heritage in the study area. A landscape and visual impact assessment has been prepared to analyse the existing landscape and the potential visual impacts of the proposed development. The site was inspected and photomontages, plans, aerial photography, a tree survey and historic maps were analysed. The assessment of the impact on archaeological, architectural and cultural heritage included a paper survey and field inspection of the site.

9.8.2. There are some remnants on the subject site of agricultural hedgerow and field boundaries, but the site otherwise consists of relatively poor grassland. The stream to the northern part of the site has recently been redirected as part of the upgrade to the Nangor Road (R134). A number of localised archaeological remnant mounds are present throughout the area associated with recent excavations. The landscape to the east and north is characterised by very large built developments and new tree lined roads, and to the west and south the landscape was generally rural in character and is becoming a transitional landscape. There are no views or prospects listed in the Development Plan affecting the site and the Landscape Character Assessment

designates the site as having a medium landscape sensitivity, due to the vulnerability of the agricultural landscape to urban pressures.

9.8.3. There are two recorded monuments in the immediate vicinity of the proposed development site, one of which, a concentric enclosure, extends into the site. These monuments have been subject to archaeological excavation and have been fully preserved by record. An excavated area within the proposed development site consisted of disturbed linear features of possible medieval date. The townland boundary that ran through the site was removed in the past. There are four structures listed in the NIAH in the vicinity of the proposed development site, the closest of which is c. 375m to the south-west.

Characteristics of the Proposed Development

9.8.4. The proposed Clutterland substation is situated within the eastern part of the data centre development permitted under Reg. Ref: SD20A/0121. The permitted landscape treatment will not be altered by the proposed development other than minor changes to berm alignments. Significant belts of woodland will link the existing hedgerows and trees into a much larger ecological habitat, including native wetland to the west of the site.

9.8.5. Proposals that will have the potential to impact on the landscape and cultural heritage include the construction of the new 2-storey GIS building and related site infrastructure, and excavation works associated with the construction of the underground transmission lines.

Potential Landscape and Visual Impact of the Proposed Development

9.8.6. The potential **landscape and visual** impacts are summarised as follows:

- Initial construction operations created by the clearance of the site and construction of buildings and plant will give rise to temporary impacts on landscape character.
- Construction of underground transmission lines will require trenching and stockpiling of material along its route. Temporary works required to install the cables would be similar to works that have been undertaken in the area recently and will require some recently planted trees along the road to be removed.

- Visibility from most of the surrounding landscape will be limited by the existing buildings and vegetation and the buildings and landscape of the permitted data centre.
- Proposed development is located adjacent and within the Grange Castle Business Park and the visual elements associated with construction would be considered part of the urban landscape.
- Permitted development will significantly alter the landscape character and the new landscape will surround the proposed substation.
- Proposed development will be visible in glimpse views from the New Nangor Road.
- Significant amount of native woodland, wetland and grassland habitats to be created would have a very positive impact on the landscape character of this area.

Mitigation Measures for Landscape and Visual

- Construction compounds, temporary car parking and storage facilities, etc. will be located sensitively to avoid local visual sensitivities.
- Permitted development will provide substantial mitigation of the proposed development – no additional landscape mitigation measures are proposed as part of the proposed development other than minor changes to the positioning of berms permitted to the north of Buildings B and C.
- Earth modelling and large tree planting with woodland whip planting will provide a high level of visual screening.
- Set back of built development will accommodate significant landscape buffer zones.
- Incorporation of stormwater attenuation systems as above ground wetlands and ponds will improve amenity, visual and biodiversity of the landscape.

Residual Impacts for Landscape and Visual

9.8.7. The residual impacts are visualised by six verified photomontages taken from around the site. The impact of the proposed development will be negative, slight to

moderate and temporary during construction. During the operational phase, the visual impact will range from slight to not significant in the long-term.

Potential Impact on Cultural Heritage

9.8.8. The potential impacts on **cultural heritage** are summarised as follows:

- Potential for small or isolated archaeological features to survive beneath the existing ground level outside the footprint of test trenches and excavated areas. Ground disturbances have the potential to directly and negatively impact on any such remains.

Mitigation Measures for Cultural Heritage

- Archaeological monitoring of topsoil stripping associated with the proposed development should be carried out in all areas outside the footprint of the previously excavated areas.
- Any features of archaeological potential discovered may require further archaeological mitigation, such as preservation in-situ or by record, to be approved by the National Monuments Service.

Residual Impacts for Cultural Heritage

9.8.9. No predicted residual impacts if mitigation be carried out fully and successfully.

Conclusions on Cultural Heritage and the Landscape

9.8.10. Construction phase visual impacts on the landscape will include the creation of compounds, use of machinery, clearing of vegetation and topsoil, reinstatement, etc. Operational phase impacts will relate mainly to above ground structures associated with the proposed substation. This site is low lying and partially screened from public view and the landscape of the proposed development has no inherent aesthetic qualities of note. The area can also be described as a transitional landscape and the proposed development is a continuation of recent trends in the local area. There is some aesthetic value to the trees, hedgerow and original alignment of the Baldonnel Stream; however, this area is small and degraded.

9.8.11. A recorded monument, a concentric enclosure, extends into the site and this has been subject to archaeological excavation. An excavated area within the proposed

development site also consisted of disturbed linear features of possible medieval date. Archaeological monitoring of topsoil stripping associated with the proposed development should be carried out in all areas outside the footprint of the previously excavated areas. I am satisfied that with proper implementation of all mitigation measures, no significant direct, indirect or cumulative adverse effects on cultural heritage and the landscape are likely to arise.

9.9. Material Assets

9.9.1. Material assets are addressed under Chapters 15 of the EIAR. Chapter 12 on Traffic and Transportation and Chapter 14 on Waste Management also contain elements relating to material assets and are covered under this section. The traffic and transportation assessment predicts the traffic impact of the proposed development during construction and operational phases, taking into account the committed developments in the area. Traffic impact assessment methodology includes the establishment of baseline conditions, review of permitted development, estimation of proposed development traffic generation, assessment of cumulative traffic impact, worst case construction traffic impact and mitigation measures.

9.9.2. The Material Assets chapter assesses the potential impact on ownership and access, built services and infrastructure in terms of power and electricity supply, telecommunications, surface water infrastructure, foul drainage infrastructure and water supply. A key site selection reason for the permitted development is the relative proximity to the existing Castlebaggot substation and the Kilmahud-Corkagh circuit. EirGrid has confirmed that there is sufficient power available from the existing area network for the proposed development.

9.9.3. An outline Construction & Demolition Waste Management Plan has been prepared for the construction phase of the proposed development. The Waste Management chapter considers the legislative context and describes the typical waste materials that will be generated during construction and operational phases. Mitigation measures are included to prevent waste generation and promote the management of waste in accordance with the waste hierarchy.

Characteristics of the Proposed Development

9.9.4. The proposed substation will be served by 4 no. car parking spaces and the internal road layout of the permitted development will extend into the proposed development from the main access junction with the Grange Castle South Business Park access road. This road will provide access to the site during construction and operational phases. The proposed development includes internal footpaths and no pedestrian facilities are proposed along the routes of the 110kV and 49kVa cable installations.

9.9.5. Excavation of trenches will be carried out in consultation with the ESB and once construction of the proposed development is completed, ESB Networks will complete the commissioning. The construction phase will require temporary electrical supply and telecommunications. Drainage proposals for the site during construction and operational phases are set out in the hydrology chapter.

9.9.6. It is estimated that c. 24,300m^3 of excavated material will be generated and suitable soil and stones will be reused on site as backfill. However, most of the excavated material will be removed off site as waste and removal and reuse/ recycling/ recovery/ disposal of the material will be carried out in accordance with waste legislation.

Potential Impact of the Proposed Development

9.9.7. The potential/ predicted impacts on **traffic and transport** are summarised as follows:

- For the purposes of assessment, it is assumed that all construction traffic will follow the traffic patterns presented for the permitted development.
- Construction activities relating to the proposed GIS substation compound will be undertaken jointly with Phase 1 (Building A) of the permitted development.
- Section of road requiring lane closure for the laying of the 110kV underground cables will be subject to a T2 licence to South Dublin County Council.
- Peak construction staff will be 30, and peak cars entering/ existing the site will be 30 and peak HGVs entering/ existing the site will be 10.
- Proposed Clutterland substation does not require any full time staff to operate it on a daily basis – weekly inspection on a single day will be conducted by up to

two ESB staff and more comprehensive maintenance works will take place annually – 4 ESB staff over a maximum of 15 days.

- When added to the construction traffic associated with the permitted development, the impacts of traffic associated with the construction of the proposed development are minimum.
- The worst affected junction is the 3-arm Baldonnel Road (L2001) / Grange Castle South Business Park priority controlled junction, which will experience a 18.5% peak increase during the construction phase for the permitted development only, and this will increase to 21.5% when the proposed development is included.
- Overall impact of both developments is considered to be not significant given the short-term nature of the construction phase.
- Traffic flows for a 'do minimum' scenario (all permitted developments only) and a 'do something' scenario (all permitted and the proposed development), are very similar – only 2 no. additional vehicle movements are expected to be generated by the proposed development during critical time periods.
- With the proposed development in place, the cumulative traffic movements through junction 5 will increase by 19.7%, which compares to 19.5% with permitted developments only. Traffic impact during operational phase will be long-term, neutral and imperceptible.

Mitigation Measures for Traffic and Transport

- Contractor will be required to provide wheel cleaning facilities and regular cleaning of the main access road.
- Temporary car parking facilities for construction workers will be provided within the site to a standard sufficient to avoid mud spillage onto adjoining roads.
- Monitoring and control of construction traffic will be ongoing during construction works – construction traffic movements will be minimised during peak hours and shall minimise traffic impact to surrounding properties.

Remedial Impacts for Traffic and Transport

9.9.8. The residual impacts of the proposed development will be neutral and imperceptible.

Potential Impacts of the Proposed development on Material Assets

9.9.9. The potential impacts on **Material Assets** are summarised as follows:

- Power requirements for the construction phase will be relatively minor.
- Excavation of trenches in the vicinity of existing electrical services will be carried out in consultation with ESB to ensure there will be no impact on existing users.
- No potential impacts associated with surface water infrastructure for the proposed development during the construction phase.
- There will be a requirement to discharge stormwater collected in trenching to sewer – discharge water will be treated using a siltbuster or similar.
- The nature of the proposed development ensures that rather than utilising electricity, it will ensure continuity of supply of electricity to the permitted development. Proposed substation will only use a minimal amount of electricity provided by the 40kVa connection.
- Surface water drainage network for the permitted development was designed to accommodate surface water drainage for the proposed development.
- There are no potential impacts during the operational phase on water supply, surface water or foul drainage infrastructure.

Mitigation Measures for Material Assets

- Ongoing consultation with EirGrid, ESB Networks, South Dublin County Council, Irish Water and other relevant utility providers and compliance with any requirements or guidelines they may have.
- Excavation of trenches will be carried out in consultation with ESB Networks and commissioning will be in accordance with ESB Network requirements.
- Surface water run-off during the operational phase will be contained on site and treated to ensure adequate silt removal.

Residual Impacts

9.9.10. The proposed development entails minimal use of material assets (power and electrical supply, telecommunications, drainage infrastructure and water supply).

Potential Impacts of the Proposed development on Waste Management

9.9.11. The potential impacts on **Waste Management** are summarised as follows:

- Proposed development will generate surplus excavated material as well as waste from welfare facilities.
- Surplus excavated material classified as waste will be segregated at source and transferred directly from the site to suitably authorised receiving facilities.
- If waste material is not managed or stored correctly, it is likely to lead to litter or pollution and vermin.
- Use of non-permitted waste contractors could give rise to inappropriate management of waste and result in negative environmental impacts or pollution.
- At present there is sufficient capacity for the acceptance of the predicted construction waste materials at facilities in the region.
- Potential for excavated of contaminated materials.
- No waste will be generated from the operation of the proposed 110kV transmission line and 49kVa cable line.
- Small volumes of waste will be generated at the proposed Clutterland substation – potential for small volumes of waste being sent unnecessarily to landfill.
- Improper storage or management of waste is likely to lead to litter, pollution and vermin during the operational phase.

Mitigation Measures for Waste Management

- Adherence to the high-level strategy presented in the Construction & Demolition Waste Management Plan will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the construction phase of the proposed development.
- Prior to commencement of construction, contractors will be required to refine/ update the C&D WMP to detail specific measures to minimise waste generation and resource consumption and provide details of the proposed waste contractors and destinations of each waste stream.

- Suitable soils and stones will be reused as backfill in grassed areas where possible. Majority of material will require removal off site and will be reused where practical and if it cannot be reused it will be recycled/ recovered.
- On-site segregation of waste materials will be carried out, e.g. made ground, soil and stones, trees/ shrubbery, etc.
- Excavations will be carefully monitored for contaminated soils and waste manager will be appointed.
- Waste materials generated at the site compound will be stored in suitable receptacles (including hazardous materials).
- Construction staff will be trained on waste management procedures.
- Waste will be stored in colour coded bins in easily accessible locations.

Residual impacts for waste

9.9.12. Adherence to mitigation measures will ensure that the residual impact for waste management will be neutral and imperceptible.

Conclusions on Material Assets

9.9.13. The proposed development will not generate traffic levels during construction and operational phases that will give rise to a significant impact. The impact is assessed cumulatively with the permitted development during the construction phase and the increased traffic levels at peak times attributed to the proposed development are minimal. It is estimated that the proposed development will only generate an additional 2 no. additional vehicle movements during critical time periods in 2036.

9.9.14. There will be ongoing consultation with EirGrid, ESB Networks, South Dublin County Council, Irish Water and other relevant utility providers and compliance with any requirements or guidelines they may have. The mitigation measures for waste management will ensure compliance with the provisions of the Waste Management Act, 1996 (as amended) and associated regulations, the Litter Pollution Act, 1997 and the EMR Waste Management Plan (2015-2021).

9.9.15. I am satisfied that with proper implementation of mitigation and best practice measures, together with implementation of environmental commitments under the

Construction and Environmental Management Plan, no significant direct, indirect or cumulative adverse effects on material assets are likely to arise.

9.10. Vulnerability of the Project to Major Accident and/ or Natural Disaster

9.10.1. Section 2 of the EIAR identifies any major accidents or natural disasters that have the potential to affect the proposed development, e.g. landslides, seismic activity and sea level rise/ flooding.

9.10.2. The potential for landslides occurring at the site is negligible due to the topography and soil profile. A Flood Risk Assessment carried out for the site concludes that there is no historic flooding on site, and it is not expected that the proposed development would adversely impact on flood risk for neighbouring properties. Part of the site is within Flood Zone B; however, the Justification Test assesses that the proposed development satisfies the criteria for development management.

9.10.3. It is confirmed that the proposed project will not be a SEVESO/ COMAH facility and does not therefore pose a major hazardous accident risk. A small amount of diesel will be stored on site. The implementation of the CEMP and mitigation measures will ensure risk of minor accident/ spillage is low.

9.10.4. I am satisfied that given the nature of the proposed development, and the mitigation measures proposed, together with the low probability of a major accident/ natural disaster, it is not likely that significant effects on the environment would arise in this regard.

9.11. Cumulative Impacts & Environmental Interactions

9.11.1. Chapter 17 of the EIAR sets out the various inactions between the environmental factors insofar as the effect of one environmental factor causes an indirect effect on another environmental factor. Throughout the EIAR, the cumulative assessment of the proposed development is carried out along with the permitted data centres and other developments in the area.

9.11.2. There are no interactions of note between population and human health and any of the other environmental factors. The only negative interactions are between biodiversity/ noise and vibration; land, soils, geology and hydrogeology/ noise and

vibration; and landscape and visual impact/ traffic. All other interactions are neutral or not of note. Noise generated during the construction phase will have a short-term negative impact on fauna that are likely to be displaced. Excavation works will have a short term negative impact on the local noise environment and effects on the landscape will be caused by the establishment of temporary traffic management regimes.

9.11.3. Many of the interactions will take place during the construction phase of the proposed development and will therefore be short term. Mitigation measures are set out in each of the relevant chapters and can also be applicable to other environmental factors.

9.11.4. The potential cumulative impact of the proposed 110kV substation, transmission lines and 49kVa cable installation is assessed in Chapter 16 of the EIAR with other existing, planned and permitted development. This includes the adjacent data centre development (SD20A/0121), the MV temporary connection to be undertaken by the statutory undertaker to the east, and the ongoing construction of the CyrusOne data centre to the immediate south of the proposed development site.

9.11.5. Most of the proposed development is within the permitted development site (SD20A/0121) for the 3 no. data centre buildings with combined gross floor area of 80,269 sq.m. The northern part of the proposed 110kV transmission line from the point where is crosses the Nangor Road is outside the permitted development site.

9.11.6. It is envisioned in the EIAR that the construction of Building A of the permitted development and the proposed development will be carried out concurrently. Building A commenced construction in Q3, 2020. However, it is stated in the EIAR that the proposed development will be completed prior to the completion of Building A. The operational phase of the proposed and permitted development has the potential to cumulatively increase noise, generate additional traffic and impact on air quality. These impacts are considered to be imperceptible, long-term and neutral.

9.11.7. The MV temporary connection providing a temporary power supply to Building A of the permitted development will be in place prior to commencement of construction of the proposed development. MV ducting has been installed as part of the road works along New Nangor Road. There will be no perceptible cumulative impact with the construction or operation of the proposed development. The cumulative impact of

fibre installation serving the permitted development and extending into GIS substation will also be not significant/ imperceptible during the construction and operational phases.

9.11.8. Most other permitted developments in the area are not significant in terms of cumulative impact due to lack of proximity and non-sharing of access points. There are potential cumulative impacts, however, with the CyrusOne development (ABP-302813-18). There will be negative but short-term cumulative impacts on population and human health associated with construction noise and dust generation. The operational phase will give rise to positive impacts from increased employment and support of local businesses. The cumulative noise impacts during the operational phase will be long-term and not significant. There is potential for the proposed 110kV GIS substation to provide power to other future developments, thereby creating additional employment as a long-term and positive cumulative impact.

9.11.9. There is potential for cumulative impacts on the local geological, hydrogeological and hydrological environment if key engineering works are not adequately mitigated. Mitigation measures form part of the EIAR for each of the permitted and committed developments in the area. There are no predicted cumulative noise impacts given that the proposed development will be c. 300m from the nearest off-site locations. The noise environment will continue to be dominated by local traffic noise. Appropriate mitigation measures at respective sites will also result in no cumulative impacts on air quality or climate.

9.11.10. The potential for additional construction traffic from committed and permitted developments is not considered to be significant given the short-term nature of the construction phases. Junctions serving the developments will have sufficient capacity to accommodate the cumulative traffic increase associated with construction works.

9.11.11. There will be a noticeable change in the landscape character of the area arising from the cumulative visual impacts of surrounding developments. However, this will be mitigated by proposals for belts of trees linking into a larger ecological habitat and the wetland area associated with the CyrusOne development. The construction phase of the proposed development will not extend the overall construction phases of the permitted development and the CyrusOne development. The overall change

in character from greenfield to high-tech development is consistent with the land use zoning objective for the sites and wider area.

9.11.12. It is proposed to monitor construction activity and preserve any identified archaeological features by record on site. All other developments will be subject to archaeological, architectural and cultural heritage impact assessment. Other development will also be required to manage waste in accordance with legislation, policies and plans. The overall predicted cumulative impact on material assets is long term and not significant.

9.11.13. In general, I would be satisfied with the methodology provided within the EIAR for cumulative assessment. The applicant has considered the impact of the proposed 110kV grid connection, transmission lines and cable link cumulatively with the permitted data centre development and the nearby CyrusOne development. Overall, this provides for a robust and complete assessment of the proposal by itself and any cumulative interactions with other relevant aspects.

9.12. Reasoned Conclusion

9.12.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the applicant, and the submissions from Planning Authority, observers and prescribed bodies in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- Positive impacts on **population and human health** in terms of the local economy from increased spending and jobs during the construction period.
- Construction phase impacts on Population and Human Health will be mitigated by a range of measures and through implementation of the CEMP.
- Potential adverse impacts on **Biodiversity** during the construction phase from site clearance, soil-stripping and earthworks, and from surface water carrying silt, hydrocarbons or other chemicals into the Baldonnel Stream. Potential for temporary disturbance to otter and reduced usage of a section of the Baldonnel Stream during construction. A range of mitigation measures will be put in place

for the construction phase to prevent water pollution and impacts on flora and fauna.

- Potential long-term positive impacts on **Land** through change of use from former agricultural lands to enterprise and employment lands in accordance with the land use zoning objective.
- Potential adverse impacts on **Water** from silt run-off and incorrect handling of deleterious materials such as lubricants, waste oils, cement, etc. Measures will be put in place such that works are undertaken in accordance with best practice in relation to the handling and storage of fuels, oils, chemicals and stockpiles, and the CEMP will also provide a framework for water quality protection during construction.
- Potential adverse impacts in terms of **Air** during construction works associated with noise from cable laying and dust emissions throughout the site. Measures will be applied during construction including the limitation of hours during which site activities are likely to create high levels of noise or vibration, establishing channels of communication, good site management through good design and effective control strategies to avoid dust becoming airborne at source.
- Potential impacts on **Cultural Heritage and the Landscape** will be mitigated during the construction stage through archaeological monitoring of ground works.

Having regard to the above, I am satisfied that the proposed development would not have any unacceptable direct or indirect effects on the environment. The Board is satisfied that the reasoned conclusion is up to date at the time of making the decision.

10.0 Appropriate Assessment

10.1. The areas addressed in this section are as follows:

- Compliance with Articles 6(3) of the EU Habitats Directive
- Geographical Scope and Main Characteristics
- Screening the need for Appropriate Assessment
- Identification of Likely Effects

- Screening Determination

10.2. **Compliance with Articles 6(3) of the EU Habitats Directive:** The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

10.3. The proposed development comprises the construction of a 110kV GIS substation; an underground transmission line (180m in length) to the existing 220kV/ 110kV Castlebaggot substation; a 1.1km long transmission line to the existing Kilmahud-Corkagh circuit; and a 300m long 49kVa electricity connection to the Grange Castle South Business Park access road. The proposal is not directly connected with or necessary to the management of any European site and is therefore subject to the provisions of Article 6(3).

10.4. **Appropriate Assessment Screening Report and Associated Documents**

10.4.1. The application for the proposed substation and grid connections was accompanied by an Appropriate Assessment Screening Report dated 28th September 2020. This report sets out the methodology for Appropriate Assessment screening based on relevant guidance and is informed by the description of the proposed development, an overview of the receiving environment, a desktop data review, baseline surveys and an assessment of the effects on European Sites. The Qualifying Interests and Special Conservation Interests of the European Sites in the vicinity of the subject site, and the planning policies and objectives relating to the protection of European Sites and water quality are appended to the report. Other documents that accompany the planning application include an Environmental Impact Assessment Report, an Engineering Planning Report – Drainage and Water Services and an outline Construction and Environmental Management Plan.

10.4.2. The AA Screening Report was prepared in line with current best practice guidance and provides a description of the proposed development and identifies any European Sites within a possible zone of influence of the development. It is concluded within the AA Screening Report, following an examination, analysis and evaluation of best available information, and applying the precautionary principle, that the possibility of any significant effects on any European Sites, whether arising from the project alone or in combination with other plans or projects, can be excluded. In reaching this conclusion, the authors of the AA Screening Report have fully considered the nature of the project and its potential relationship with all European Sites within the zone of influence, and their conservation objectives.

10.4.3. Having reviewed the documents and submission on the application, I am satisfied that the information allows for a complete examination and identification of any likely significant effects of the development, alone or in combination with other plans or projects, on European Sites.

10.4.4. The AA Screening Report was informed by the following studies, surveys and consultations:

- Desk based studies including the following:
    - Online data available on European Sites and protected habitat/ species held by NPWS from www.npws/.ie, including conservation objectives documents,
    - Online data available on protected species as held by the National Biodiversity Data Centre from www.biodiversityireland.ie,
    - Information on surface water network and surface water quality from www.epa.ie,
    - OSi mapping and aerial photography from www.osi.ie.
- Habitat survey undertaken on 2nd September 2020 following the methodology described in “Best Practice Guidance for Habitat Survey and Mapping” (Heritage Council, 2011).
- Classification of habitat types in accordance with “A Guide to Habitats in Ireland” (Fossitt, 2000).

- The DAFOR scale,
- The National Vegetation Database,
- Interpretation Manual of European Union Habitats EUR28

10.5. Geographical Scope and Main Characteristics

10.5.1. The site is located within the Grange Castle South Business Park on the western periphery of Dublin City in a former agricultural area that has transitioned in recent years into a setting for high-tech business. Occupants of Grange Castle Business Park to the north include Pfizer, Microsoft, Takeda and Aryzta. Google are situated in the Grange Castle South Business Park to the south of the proposed development. The Microsoft and Google complexes include large data centres and there are a number of other existing and proposed data centres in the area. The business parks form part of an enterprise and employment zoning covering the wider area.

10.5.2. The subject site is roughly "S" shaped and comprises an area of 7.7 hectares extending over a distance of approximately 1,440m with widths ranging from 30m to 130m. The widest part of the site to the south where the substation is proposed consists of former agricultural lands and the strip to the north continues along the roadway. The part of the site formally in greenfield falls gently from south to north towards the Baldonnel Stream, which flows north-westwards before entering the Griffeen River. The Griffeen River is a tributary of the River Liffey.

10.5.3. The proposed substation and grid connections are for the purposes of supplying power to an adjoining data centre development permitted under Reg. Reg: SD20A/0121. Construction works for the 110kV substation will involve site preparation works, building structure construction, building envelope construction and fit out. The 110kV transmission lines and 49kVa cable installation will include site preparation and excavation, cable installation, jointing and testing and reinstatement. Joint bays will require construction of concrete bases for electrical apparatus and fit out. Works will take approximately 14 months to complete.

10.5.4. The Baldonnel Stream has been realigned along the southern edge of the Nangor Road at surface before it enters a culvert to outfall to the River Griffeen. Stormwater

run-off from the site will pass through gullies and an oil separator to permitted attenuation ponds before out-falling to the Baldonnel Stream. There is capacity within the permitted attenuation design to accommodate run-off from the proposed development. Horizontal directional drilling to a depth of approximately 6m will be required for a c. 100m section of the transmission line under the culverted Griffeen River. Foul effluent from the proposed development will be discharged to the business park network and ultimately to Ringsend Wastewater Treatment Plant.

10.6. Screening the need for Appropriate Assessment

10.6.1. The proposed development site is not located in or immediately adjacent to a European Site. The closest European Site is the Rye Water Valley/ Carton SAC, which is approximately 5km north-west of the subject site.

10.6.2. Having regard to the information and submissions available, the nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, the European Sites set out in Table 1 below are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects. A 15km study area from the proposed development is applied for this purpose, wherein a total of seven European Sites are included (5 SACs & 2 SPAs).

10.6.3. European sites considered for Stage 1 screening:

European site (SAC/SPA)	Site code	Distance to subject site	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
Rye Water Valley/ Carton SAC	001398	5km	No potential connections	N
Glenasmole Valley SAC	001209	8km	No potential connections	N
Wicklow Mountains SAC	002122	10km	No potential connections	N
Red Bog, Kildare SAC	000397	14km	No potential connections	N
South Dublin Bay SAC	000210	c. 15km	No potential connections	N
Wicklow Mountains SPA	004040	13km	No potential connections	N

European site (SAC/SPA)	Site code	Distance to subject site	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
South Dublin Bay & River Tolka Estuary SPA	004024	c. 15km	No potential connections	N

Table 1 – Summary Table of European Sites considered in Screening for Appropriate Assessment

10.6.4. Table 2 below provides a screening summary matrix of the outcomes of the screening process explaining why the effects are not considered significant using objective information.

European Site	Distance to proposed development/ source, pathway receptor	Possible effect alone	In combination effects	Screening conclusions:
Rye Water Valley/ Carton SAC **Qualifying Interest:** Petrifying springs with tufa formation (Cratoneurion) [7220] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	c. 5km Proposed development lies within the Dublin Groundwater Body and SAC is designated for groundwater dependent habitat and/ or species.	Proposed development will not interact directly with the underlying groundwater and the subject site lies downgradient of the SAC.	Proposed development itself will not have any effects on the QIs/ SCIs or conservation objectives and there is not potential for any other plan or project to act in combination with it to result in significant effects on any European Site.	Screened out for need for AA
Glenasmole Valley SAC **Qualifying Interests:** Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Petrifying springs with tufa formation (Cratoneurion) [7220]	c.8km This elevated site is outside of any zone of influence of the development due to the lack of ecological connections to the specific habitat type for which the site is designated.	No possibility of effects due to the distance from and lack of connections to the habitat for which this site is designated.	No effect	Screened out for need for AA
Wicklow Mountains SAC **Qualifying Interests:** Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	c. 10km This elevated site is outside of any zone of influence of the development due to the lack of ecological connections to	Baldonnel Stream supports Otter; however, there is no connectivity of habitat between the proposed development site and the Wicklow Mountains SAC.	No effect	Screened out for need for AA

Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the Violetalia calaminariae [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Lutra lutra (Otter) [1355]	the specific habitat type for which the site is designated.			
Red Bog, Kildare SAC **Qualifying Interests:** Transition mires and quaking bogs [7140]	c. 14km Outside of water catchment area and no other ecological or hydrological connects.	No possibility of effects	No effect	Screened out for need for AA
South Dublin Bay SAC **Qualifying Interests:**	Baldonnel Stream is a tributary of the Griffeen River which in turn is a tributary of the River Liffey. The River	No possibility of effects due to the scale and location of the proposed development relative to the downstream	Proposed development itself will not have any effects on the QIs/ SCIs or conservation objectives and	Screened out for need for AA

Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	Liffey enter Dublin bay c. 17.5km (hydrological distance) downstream of the subject site.	European Site; the relatively low volumes of any surface water run-off or discharge events from the proposed development site relative to the receiving 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 waters, Dublin Bay and the Irish Sea.	there is not potential for any other plan or project to act in combination with it to result in significant effects on any European Site.	
Wicklow Mountains SPA **Qualifying Interests:** Merlin (Falco columbarius) [A098] Peregrine (Falco peregrinus) [A103]	c. 13km	No possibility of effects due to the significant distance between the proposed development site and the SPA.	No effect	Screened out for need for AA
South Dublin Bay and River Tolka Estuary SPA **Qualifying Interests:** Light-bellied Brent Goose (Branta bernicla hrota) [A046] Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144] Dunlin (Calidris alpina) [A149]	c. 15km	Ringed Plover was recorded on site on 28th June 2019 – no potential for significant impacts on European Site as single individual recorded in summer months and European Site is designated for wintering populations of Ringed Plover. No Ringed Plover recorded during wintering surveys.	No effect	Screened out for need for AA

Bar-tailed Godwit (Limosa lapponica) [A157] Redshank (Tringa totanus) [A162] Black-headed Gull (Chroicocephalus ridibundus) [A179] Roseate Tern (Sterna dougallii) [A192] Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194] Wetland and Waterbirds [A999]				

Table 2 Screening summary matrix: European Sites for which the possibility of significant effects can be excluded

10.7. Identification of Likely Effects

10.7.1. The proposed development is assessed in the AA Screening Report for its potential to result in significant effects on European Sites, either alone or in combination with other plans or projects. Individual elements of the project occurring during construction and operational phases are assessed in terms of their potential for habitat loss and fragmentation; habitat degradation as a result of hydrological impacts; habitat degradation as a result of introducing/ spreading non-native species; and disturbance and displacement impacts.

10.7.2. A small portion of the Baldonnel Stream remains in a natural condition along the north-eastern portion of the proposed development site. Treeline habitat will be lost as part of the permitted development and this will be reworked around wayleaves and strengthened with native tree planting. Otter and Kingfisher were recorded along the Baldonnel Stream. However, there is no connectivity of habitat between the proposed development site and the nearest SAC for which otter has been designated as a qualifying interest (Wicklow Mountains SAC). Similarly, the nearest SPA for which Kingfisher has been designated is 36.5km (River Boyne and Blackwater SPA) and Kingfisher territories only extend over 3 to 4km. Lapwing were recorded feeding on the site and the Boyne Estuary SPA is also the nearest European Site that this species is of special conservation interest. A single Ringed Plover was recorded during the summer survey; however, the South Dublin Bay and River Tolka Estuary SPA is designated for wintering populations of this species.

10.7.3. Surface water run-off and discharges from the site will drain to the Baldonnel Stream and eventually to Dublin Bay via the Griffeen River and River Liffey. The proposed development will not have a measurable effect on water quality in Dublin Bay or the Irish Sea based on the scale and location of the proposed development; the relatively low volumes of surface water run-off and discharge events; and the level of mixing, dilution and dispersion of any surface water run-off/ discharge. There will also be no possibility of the proposed development undermining the conservation objectives of any European site as a result of foul water discharges.

10.7.4. The closest European Site to the proposed development site is the Rye Water Valley/ Carton SAC located approximately 5km to the north-west. This SAC is designated for groundwater dependent habitats and/ or species and the general

groundwater flow direction is away from this European Site towards the coast, the River Liffey and Dublin City. The proposed development will not interact with the underlying groundwater body and is downgradient of the Rye Water Valley/ Carton SAC.

10.7.5. As the proposed development does not support populations of any qualifying interest/ special conservation interest species associated with European Sites, there will be no disturbance and displacement impacts associated with the mammals or birds that are QI/ SCI of any European Site.

10.7.6. Cumulative impacts have been considered. Any permitted or future developments in the area are likely to be enterprise and employment in nature on fully serviced lands. The proposed development itself will not have any effects on the qualifying interests/ special conservation interests or conservation objectives of any European Sites and there is no potential for any other plan or project to act in combination with it to result in significant effects on any European Site.

10.7.7. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

10.8. Screening Determination

10.8.1. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually or in combination with other plans or projects would not be likely to give rise to significant effects on any of the above listed European Sites, or any other European site, in view of the sites' Conservation Objectives, and Appropriate Assessment (and submission of a NIS) is not therefore required. This determination is based on the following:

- The distance of the proposed development from European Sites and demonstrated lack of any ecological connections.
- The scale and location of the proposed development and the relatively low volumes of surface water run-off and discharge events.
- The level of mixing, dilution and dispersion of any surface water run-off/ discharge in receiving watercourses, Dublin Bay and the Irish Sea.

- Non interaction of the proposed development with the underlying groundwater body and the downgradient location of the site from the Rye Water Valley/ Carton SAC.

11.0 **Recommendation**

11.1. I recommend that planning permission for the proposed development should be approved, subject to conditions, for the reasons and considerations as set out below.

12.0 **Reasons and Considerations**

12.1. In coming to its decision, the Board had regard to the following:

a) EU legislation including in particular:

- The relevant provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU (EIA Directive) on the assessment of the effects of certain public and private projects on the environment,
- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.

b) National Legislation including in particular:

- Section 182A of the Planning and Development Act 2000 (as amended)

c) Regional Policy including in particular:

- The Regional Spatial and Economic Strategy for the Eastern and Midlands Region,

d) Local Planning Policy including in particular:

- The provisions of the South Dublin County Development Plan, 2016-2022

e) The following matters:

- the nature, scale and design of the proposed works as set out in the application for approval and the pattern of development in the vicinity,

- the documentation and submissions of the Local Authority, the environmental impact assessment report and associated documentation submitted with the application, and the range of mitigation and monitoring measures proposed,
- the submissions and observations made to An Bord Pleanála in connection with the application,
- other relevant guidance documents,
- the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European sites, and
- the report and recommendation of the inspector including the examination, analysis and evaluation undertaken in relation to appropriate assessment screening and environmental impact assessment.

12.2. Proper Planning and Sustainable Development

12.2.1. It is considered that subject to compliance with the conditions set out below, the proposed development would accord with European, national, regional and local planning and related policy, it would not have an unacceptable impact on landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and it would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.3. Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development, taking into account:

(a) the nature, scale and extent of the proposed development,

(b) the Environmental Impact Assessment Report and other associated documentation submitted in support of the application,

(c) the submissions from the applicant, the observers and prescribed bodies in the course of the application, and

(d) the Inspector's report.

The Board agreed with the summary of the results of consultations and information gathered in the course of the environmental impact assessment, and the examination of the information contained in the Environmental Impact Assessment Report and the associated documentation submitted by the applicant, and the submissions made in the course of the application as set out in the Inspector's report. The Board was satisfied that the Inspector's report sets out how these various environmental issues were addressed in the examination and recommendation which are incorporated into the Board's decision.

Reasoned Conclusion of the Significant Effects:

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, provided information which is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account current knowledge and methods of assessment. The Board is satisfied that the information contained in the Environmental Impact Assessment Report is up to date and complies with the provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU. The Board considered that the main significant direct and indirect effects of the proposed development on the environment are those arising from the impacts listed below.

The main significant effects, both positive and negative, are:

- Positive impacts on **population and human health** in terms of the local economy from increased spending and jobs during the construction period.
- Construction phase impacts on Population and Human Health will be mitigated by a range of measures and through implementation of the CEMP.
- Potential adverse impacts on **Biodiversity** during the construction phase from site clearance, soil-stripping and earthworks, and from surface water carrying silt, hydrocarbons or other chemicals into the Baldonnel Stream. Potential for temporary disturbance to otter and reduced usage of a section of the Baldonnel

Stream during construction. A range of mitigation measures will be put in place for the construction phase to prevent water pollution and impacts on flora and fauna.

- Potential long-term positive impacts on **Land** through change of use from former agricultural lands to enterprise and employment lands in accordance with the land use zoning objective.
- Potential adverse impacts on **Water** from silt run-off and incorrect handling of deleterious materials such as lubricants, waste oils, cement, etc. Measures will be put in place such that works are undertaken in accordance with best practice in relation to the handling and storage of fuels, oils, chemicals and stockpiles and the CEMP will also provide a framework for water quality protection during construction.
- Potential adverse impacts in terms of **Air** during construction works associated with noise from cable laying and dust emissions throughout the site. Measures will be applied during construction including the limitation of hours during which site activities are likely to create high levels of noise or vibration, establishing channels of communication, good site management through good design and effective control strategies to avoid dust becoming airborne at source.
- Potential impacts on **Cultural Heritage and the Landscape** will be mitigated during the construction stage through archaeological monitoring of ground works.

Having regard to the above, I am satisfied that the proposed development would not have any unacceptable direct or indirect effects on the environment. The Board is satisfied that the reasoned conclusion is up to date at the time of making the decision.

Appropriate Assessment Screening

In conducting a screening exercise for appropriate assessment, the Board considered the nature, scale and context of the proposed development, the documentation on file, in particular the Appropriate Assessment Screening Report submitted in support of the proposed development, the submissions on file and the assessment of the Inspector in relation to the potential for significant effects on European Sites. In undertaking the screening exercise, the Board accepted the

analysis and conclusions of the Inspector. The Board concluded that, by itself and in combination with other development in the vicinity, the proposed development would not be likely to have significant effects on any European Site in view of the Sites' Conservation Objectives. In reaching this conclusion, the Board took no account of mitigation measures intended to avoid or reduce the potentially harmful effects of the project on any European Sites.

13.0 **Conditions**

1.	The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars. **Reason**: In the interest of clarity.
2.	The mitigation measures identified in the EIAR and other plans and particulars submitted with the planning application, shall be implemented in full by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this permission. **Reason:** In the interest of clarity and protection of the environment during the construction and operational phases of the proposed development.
3.	Prior to commencement of development, the applicant shall submit revised proposals to the Planning Authority for written agreement showing a reduction in the area of road surfacing within the substation compound to an absolute minimum, together with proposals for replacement planting and/ or permeable surfacing. The extent of road surfacing shall be commensurate to the type of vehicles accessing the site. **Reason:** In the interest of clarity and protection of the environment.

4.	Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the Planning Authority for such works in respect of both the construction and operational phases of the proposed development. Prior to commencement of development, and following consultation with Irish Water and Inland Fisheries Ireland, the developer shall agree with the Planning Authority proposals for all works as they affect water and drainage services, and watercourses or riparian habitat, together with written commitment to undertake the proposed development in accordance with this agreement. **Reason:** In the interest of environmental protection and public health.
5.	The landscaping proposals shall be carried out within the first planting season following commencement of construction of the proposed development. All existing trees, hedging and shrubs shall be retained and protected where possible and the location of any replacement planting shall be in close proximity to any planting removal. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted. The landscaping and screening shall be maintained at regular intervals. **Reason:** To blend it into its surroundings in the interest of visual amenity.
6.	Prior to commencement of development, a detailed Construction Environmental Management Plan (CEMP) for the construction phase shall be submitted to and agreed in writing with the local authority, generally in accordance with the Outline CEMP included in the Environmental Impact Assessment Report. The CEMP shall incorporate the following: (a) a detailed plan for the construction phase incorporating, inter alia, the construction programme, supervisory measures, noise, dust and surface water management measures, including appointment of a

	site noise liaison officer, construction hours and the management, transport and disposal of construction waste, (b) a comprehensive programme for the implementation of all monitoring commitments made in the planning application and supporting documentation during the construction period, (c) an emergency response plan, and (d) proposals in relation to public information and communication. A record of daily checks that the works are being undertaken in accordance with the Construction Environmental Management Plan shall be kept for inspection by the local authority. **Reason:** In the interest of environmental protection and orderly development.
7.	The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the undertaker shall – (a) notify the local authority in writing at least four weeks prior to the commencement of any site operations (including hydrological and geotechnical investigations) relating to the proposed development, (b) employ a suitably qualified archaeologist who shall monitor all site investigations and other excavation works, and (c) provide arrangements, acceptable to the local authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination. **Reason:** In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.
8.	The construction of the development shall be managed in accordance with a Construction Management Plan, a Traffic Management Plan and a Waste

	Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. **Reason:** In the interest of orderly development and the protection of the environment
9.	Prior to commencement of development, the applicant shall agree in writing with the Planning Authority a public lighting and site lighting scheme for the proposed development. **Reason:** In the interests of orderly development.

Donal Donnelly
Senior Planning Inspector

18th March 2021