



APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

UPGRADE/INSTALLATION OF
BROADBAND NETWORK

AT

DA015, Blessington, County Wicklow

March 2021

ON BEHALF OF

National Broadband Ireland

Prepared by

Enviroguide Consulting

Dublin

3D Core C, Block 71, The Plaza,
Park West, Dublin 12

Kerry

19 Henry Street
Kenmare, Co. Kerry

Wexford

Unit 11 Floor B
Westpoint Business Park
Clonard Road, Wexford

www.enviroguide.ie

info@enviroguide.ie

+353 1 565 4730



DOCUMENT CONTROL SHEET

Client	National Broadband Ireland
Project Title	Upgrade/Installation of Broadband Network at DA015 Blessington County Wicklow
Document Title	Appropriate Assessment Screening Report

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
1.0	Internal Draft	Shannen O'Brien <i>Project Ecologist</i>	Siobhan Atkinson <i>Ecologist</i>		
2.0	Draft for client	Shannen O'Brien <i>Project Ecologist</i>	Siobhan Atkinson <i>Ecologist</i>	Colin Lennon <i>Technical Director</i>	23/03/2021
3.0					

TABLE OF CONTENTS

LIST OF TABLES	3
LIST OF FIGURES.....	3
1 INTRODUCTION	4
1.1 BACKGROUND	4
1.2 RELEVANT LEGISLATION.....	4
1.2.1 <i>Legislative Background</i>	4
1.2.2 <i>Legislative Context</i>	4
1.2.3 <i>Stages of AA</i>	5
2 APPROPRIATE ASSESSMENT – STAGE 1 SCREENING.....	6
2.1 GUIDANCE	6
2.2 SCREENING STEPS	6
2.3 MANAGEMENT OF EUROPEAN SITES	6
2.4 DESCRIPTION OF PROJECT	7
2.4.1 <i>Project Overview</i>	7
2.4.2 <i>Brief Description of Installation Activities</i>	7
2.4.3 <i>Contractor Compounds</i>	9
2.4.4 <i>Routine Operational Measures</i>	9
<i>Project Specific Description</i>	10
2.4.5 <i>Operation, maintenance and decommission project phases</i>	11
2.4.6 <i>Existing Environment</i>	11
2.5 METHODOLOGY.....	13
2.5.1 <i>Desk Study</i>	13
2.5.2 <i>Assessment of Impacts</i>	13
2.5.3 <i>Identification of Relevant European Sites</i>	14
2.5.4 <i>Identification of Infrastructure Installation works within/adjacent to European sites</i>	15
2.5.5 <i>Assessment of the Impact of Infrastructure Installation works within, adjacent to or upstream of European sites</i>	15
2.6 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE	16
2.7 FIGURE 10 FIGURE 11 BRIEF DESCRIPTION OF EUROPEAN SITES	34
2.7.1 <i>Glenasmole Valley SAC (001209)</i>	34
2.7.2 <i>Wicklow Mountains SAC (002122)</i>	34
2.7.3 <i>Red Bog, Kildare SAC (000397)</i>	35
2.7.4 <i>Wicklow Mountains SPA (004040)</i>	35
2.7.5 <i>Poulaphouca Reservoir SPA (004063)</i>	35
2.8 ASSESSMENT OF SIGNIFICANCE OF POTENTIAL IMPACTS	36
2.8.1 <i>Habitat Loss and Alteration</i>	36
2.8.2 <i>Habitat / Species Fragmentation</i>	37
2.8.3 <i>Disturbance and/or Displacement of Species</i>	37
2.8.4 <i>Changes in Population Density</i>	42
2.8.5 <i>Changes in Water Quality and Resource</i>	42
2.8.6 <i>In-combination Effects</i>	43
2.8.7 <i>Proposed Infrastructure within 30m of European Sites</i>	45
3 CONCLUDING STATEMENT	62
4 REFERENCES	64

LIST OF TABLES

Table 1 Existing and proposed additional telecoms infrastructure	10
Table 2 New underground ducting installation location type and length	11
Table 3. Definition of Durations (EPA, 2017).....	13
Table 4. Impact Significance Criteria (EPA, 2017).	14
Table 5 European sites within the precautionary zone of influence of the proposed Project site, the distance of each European site to the project boundary and the potential direct and indirect impacts on each European site as a result of the proposed development. Where no impacts are envisaged, a rationale is provided.	20
Table 7 Summary of Intersecting infrastructure within European Sites.....	46
Table 8 Summary of impact assessment on European sites from the proposed project.	60

LIST OF FIGURES

Figure 1. The four stages of the Appropriate Assessment Process (DEHLG, 2010).	5
Figure 2. UTILITY TRUCK CARRYING UTILITY POLES AND TRUCK MOUNTED AUGER	8
Figure 3. UTILITY TRUCK MOUNTED AUGER EXCAVATING HOLE FOR UTILITY POLE	8
Figure 4. Proposed Project Location showing the location of new infrastructure and various environmental features.....	12
Figure 5. Proposed Project Location.....	17
Figure 6. New items of infrastructure lying within a 30m buffer of European SAC sites.	18
Figure 7. New items of infrastructure lying within a 30m buffer of European SPA sites.	19
Figure 8 new infrastructure features within sac sites	32
Figure 9 New infrastructure features within SPA sites.....	33
Figure 10 Figure 11 Brief Description of European sites	34
Figure 12 existing and New Infrastructure within to Glenasmole valley SAC.....	38
Figure 13 Existing and NEW INFRASTRUCTURE WITHIN TO Glenasmole Valley SAC.	39
Figure 14 PROPOSED NEW INFRASTRUCTURE WITHIN Wicklow Mountains SAC	39
Figure 15 proposed new infrastructure within and/or adjacent to Wicklow Mountains sac	40
Figure 16 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO Wicklow Mountains SAC	40
Figure 17 Proposed new infrastructure within and/or adjacent Wicklow Mountains SAC	41
Figure 18 Proposed new infrastructure within and/or adjacent to Wicklow Mountains SPA	41
Figure 19 Proposed new infrastructure within and/or adjacent to Wicklow Mountains SPA	42

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by National Broadband Ireland (NBI) to carry out an Appropriate Assessment Screening Report in relation to the upgrade/installation of broadband services to buildings in the Blessington area. This Appropriate Assessment Screening Report (the “Screening Report”) has been prepared by Enviroguide Consulting which considers whether the Proposed Project is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required. The Proposed Project entails the upgrade and installation of telecommunications infrastructure to buildings in Blessington and the surrounding area, in counties Wicklow and Dublin, covering a total area of 294km². The purpose of this report is to provide information to assist the relevant competent authority to carry out a screening for Appropriate Assessment.

1.2 Relevant Legislation

1.2.1 Legislative Background

Member States are required to designate Special Areas of Conservation (SACs) and Special Protected Areas (SPAs) under the EU Habitats and Birds Directives, respectively. SACs and SPAs are collectively known as European sites. A screening for Appropriate Assessment (AA) determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a European site (without the application of mitigation measures to avoid or reduce significant effects to a European Site), in view of its conservation objectives.

If likely significant effects are identified or cannot be ruled out, an ‘Appropriate Assessment’ is required to determine whether the significant effects of the project, either alone or in combination with other plans and projects, would have an adverse effect on the integrity of the European sites, having regard to their conservation objectives and best scientific knowledge.

This AA Screening has been undertaken to determine the potential for significant effects on relevant European sites.

1.2.2 Legislative Context

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of SACs and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of SPAs. It is the responsibility of each Member State to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected sites throughout the European Community.

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a European Site, paragraph 3 states that:

“6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the

site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended (“the 2000 Act”) and the Birds and Natural Habitat Regulations 2011, as amended.

1.2.3 Stages of AA

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

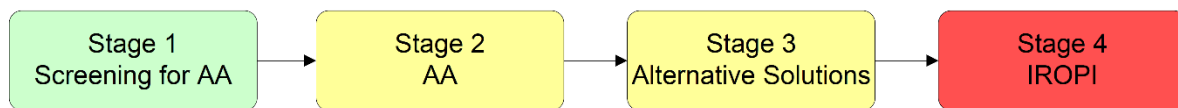


FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

The four stages of an AA, can be summarised as follows:

- Stage 1: *Screening*. The first stage of the AA process is to determine the likelihood of significant impacts of the project or plan.
- Stage 2: *Natura Impact Statement (NIS)*. The second stage of the AA process assesses the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the European site, with respect to the conservation objectives of the site and its ecological structure and function. A Natura Impact Statement containing a professional scientific examination of the project or plan is required and includes any mitigation measures to avoid, reduce or offset negative impacts.
- Stage 3: *Assessment of alternative solutions*. If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain*. The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European site, where no less damaging solution exists.

The Competent Authority must determine that an NIS is required where the project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

2 APPROPRIATE ASSESSMENT – STAGE 1 SCREENING

2.1 Guidance

This AA Screening Report has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision).
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10.
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001).
- *Communication from the Commission on the precautionary principle* (European Commission, 2000); and,
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019).

2.2 Screening Steps

Screening for AA involves the following steps:

- Establish whether the project is directly connected with or necessary for the management of a European site.
- Description of the project and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European site.
- Identification of European sites potentially affected.
- Identification and description of potential effects on the European site(s).
- Assessment of the likely significance of the impacts identified on the European site; and

Determination on whether it can be objectively concluded that there will be no significant effects, (without the application of mitigation measures to avoid or reduce significant effects to a European Site).

2.3 Management of European Sites

The development and operation of the plan by National Broadband Ireland (NBI) to install/upgrade the broadband services in the area of Blessington, Co. Wicklow (the Project) is not directly connected with or necessary to the management of European sites in the area or elsewhere.

2.4 Description of Project

2.4.1 Project Overview

The National Broadband Plan (NBP) is the largest telecommunications project undertaken by the Irish State. It aims to transform the country's broadband landscape through the delivery of high-speed broadband to all parts of Ireland where such services are not available commercially.

The network will be designed, built and operated by National Broadband Ireland, using a combination of State subsidy and commercial investment. NBI will make its services available to the entire rollout area, which accounts for 23% of the population in approximately 537,000 homes, farms, schools and businesses.

In summary NBI will provide:

- A world-class, high-speed broadband network.
- The largest telecommunications project ever undertaken by the Government of Ireland.
- Around 146,000 kilometres of fibre to connect over half a million homes, covering 96% of Ireland's land mass.
- Up to 1,800 people will be working on the project at its peak.
- High speed broadband to approximately 115,000 farms, schools and businesses in the first two years, with an additional 70,000-100,000 per year after that.
- Before the fibre can be laid, the rollout area will be surveyed completely so that all existing infrastructure can be taken into account.
- In year one, NBI will also deliver approximately 300 Broadband Connection Points (BCPs) offering high-speed broadband access across every county in the nation.
- A range of wholesale services for broadband providers in the residential and business markets.
- Services to all broadband service providers.

To deliver on the commitments outlined above NBI has broken the country down into 227 separate project locations known as Design Areas or DAs.

2.4.2 Brief Description of Installation Activities

Where possible, existing infrastructure such as utility poles, cable ducts and underground chambers will be utilised for the installation of new broadband infrastructure.

Where this is not possible, the main installation activities include:

- Erection of new poles
 - Proposed installation locations are safety checked for underground services and a temporary works area around the installation location is barriered off for reasons of safety.
 - A hole of sufficient diameter to accommodate each pole is dug to a typical depth of 1.5 – 1.7m below ground level.

- The hole is dug using a utility truck mounted auger.
- Approximately 115kgs (1-2 wheelbarrows) of soil is dug by the auger for the installation of each pole.
- The pole is lowered into place using lifting equipment. If required, cable stays will be installed to support the pole.
- The void around the newly installed pole is backfilled with excavated material, all surplus material is placed into suitable containers and removed from site by truck for compliant waste management.
- The installation of a single pole typically takes 20 – 30 minutes to complete.



FIGURE 2. UTILITY TRUCK CARRYING UTILITY POLES AND TRUCK MOUNTED AUGER



FIGURE 3. UTILITY TRUCK MOUNTED AUGER EXCAVATING HOLE FOR UTILITY POLE

- Installation of new underground chambers and fibre ducts
 - o Proposed installation locations are safety checked for underground services and a temporary works area around the installation location is barriered off for reasons of safety.
 - o A tracked mini-excavator or a wheeled backhoe such as a JCB will excavate to the design depths required, a trench for the installation of ducting, or a hole for the installation of a chamber at the infrastructure installation location(s).
 - o All excavation works will be undertaken in accordance with the project specific risk assessment and method statement.
 - o Once the infrastructure has been installed the open excavation will be backfilled with the previously excavated spoil and the ground made good.
 - o The quantity of excavated material is dependent on the length and depth of the required excavations.
 - o All surplus excavation spoil will be removed from site by truck for compliant waste management.

All new and existing infrastructure within the design area (DA) is outlined in

Table 1.

2.4.3 Contractor Compounds

The deployment of broadband infrastructure may require the use of a temporary compound including temporary office accommodation and welfare facilities, within the DA, for the storage of plant, equipment, and materials. Such temporary compounds will be situated in a fixed location for the duration of the activities. The minimum location and design standard for compounds are:

- Secure, fenced off locations with lockable gates.
- Impermeable concrete hardstanding areas with surface water drainage from the compound required to pass through a Class 1 petrol/oil interceptor with adequate silt storage capacity (maintained to manufacturer's specifications).
- Materials and waste storage will comply with the following criteria:
 - o Storage of poles in bunded area
 - o Waste must be appropriately stored and suitably bunded to prevent leakage.
 - o There must be unobstructed access for loading and unloading as well as in case of emergencies.
 - o Waste should only be handled by competent employees.
 - o The management of all waste electrical and electronic equipment and materials and comply with its obligations under the WEEE Regulations; and
- No vehicle refuelling will take place at any of the compounds.

These design standards are in compliance with NBI's Environmental Management System (EMS), described below.

2.4.4 Routine Operational Measures

The environmental commitments of the Proposed Project will be managed through the Environmental Management System (EMS). The implementation of the proposed operational

protocols, monitoring and follow-up arrangements and management of impacts, will be managed through the Environmental Management Plan. The routine operational measures to be implemented are, by their very nature routine; none of the routine operational measures to be implemented are being implemented to avoid likely significant effects on any European site.

Design standards for the compounds will be in compliance with NBI's EMS. NBI have developed Standard Operating Procedures for the completion of the specific works elements of the project, referred to as Workmanship Standards, and must be considered along with the Design, Design Risk Assessments (DRAs). The Workmanship standards applicable to the deployment of telecommunications infrastructure in each DA are provided to the Project Supervisor Construction Stage (PSCS) in the DA Build Pack (project information). Workmanship Standards do not contain any specific measures targeted at avoiding likely significant effects on a European Site.

2.4.5 Project Specific Description

This screening report is based on the proposal by NBI to install/upgrade broadband services to buildings in Blessington and the surrounding area, in counties Wicklow and Dublin (Design Area (DA) 015). The area under assessment encompasses a total of 294km² of both urban and rural environments.

As noted previously, existing infrastructure (poles, underground ducting, and chambers) will be used for the installation of cable providing broadband service to buildings in the project area. There is a requirement to supplement existing infrastructure with new additional infrastructure.

Table 1 identifies the existing telecoms infrastructure in the project area and the new additional infrastructure to be installed as part of the Proposed Project.

TABLE 1 EXISTING AND PROPOSED ADDITIONAL TELECOMS INFRASTRUCTURE

Infrastructure description	Existing Infrastructure	Additional Proposed Infrastructure
Above ground / overhead cable	308.4km	190.7km
Underground cable and ducting	206.2km	4.0km
Network Utility Poles	7922	2372
Underground chambers	5950	82
Co-Locations/Cabinets	Yes	0

The additional network equipment identified in Table 1 will be installed in the roadside verges, hedgerows and under existing footways and carriageways.

The installation of the infrastructure will not require water course crossing, or instream works.

New overhead cables will be slung between newly installed poles.

Underground ducting will follow the existing road network.

Table 2 identifies the installation location type and total length of underground ducting to be installed in each location type.

It is expected that the rollout of the infrastructure will commence 15th May 2021 to 12th September 2021.

TABLE 2 NEW UNDERGROUND DUCTING INSTALLATION LOCATION TYPE AND LENGTH

Type of install location	Total Length km
Installation in roadside verge	2.8km
Installation under existing footway	0.2km
Installation under existing carriageway	1.0km

2.4.6 Operation, maintenance and decommission project phases.

During the operation of the network, reactive maintenance of the new infrastructure will occur once an issue has been reported/detected e.g., pole broken, pole leaning, underground cable cut etc. Replacement of damaged underground cable will use existing ducting. During the operational phase, poles will be stored in established contractor's storage areas, in compliance with current legislation. Poles which are being replaced by NBI during the operational phase will be removed and disposed of by the appropriate means.

All operational maintenance, repair, replacement and upgrade of network equipment will be undertaken in strict compliance with the Workmanship Standards.

2.4.7 Existing Environment

The Project is located within an area that is primarily urban within Blessington, and rural in the wider area (mainly grazing/agricultural/forestry).

A number of river waterbodies and groundwater bodies are located within the project area and environs, which are shown in Figure 4.

Glenasmole Valley SAC, Wicklow Mountains SAC, Red Bog Kildare SAC, Slaney River Valley SAC, Mouds Bog SAC, Pollardstown Fen SAC, Rye Water Valley/Carton SAC, Ballynafagh Lake SAC, Knocksink Wood SAC, Ballynafagh Bog SAC, South Dublin Bay SAC, Ballyman Glen SAC, North Dublin Bay SAC, Carriggower Bog SAC, River Barrow And River Nore SAC, Glen of the Downs SAC, Wicklow Mountains SPA, Poulaphouca Reservoir SPA, South Dublin Bay And River Tolka Estuary SPA, and North Bull Island SPA are located within the project route at various points, see **Error! Reference source not found.** below for details.

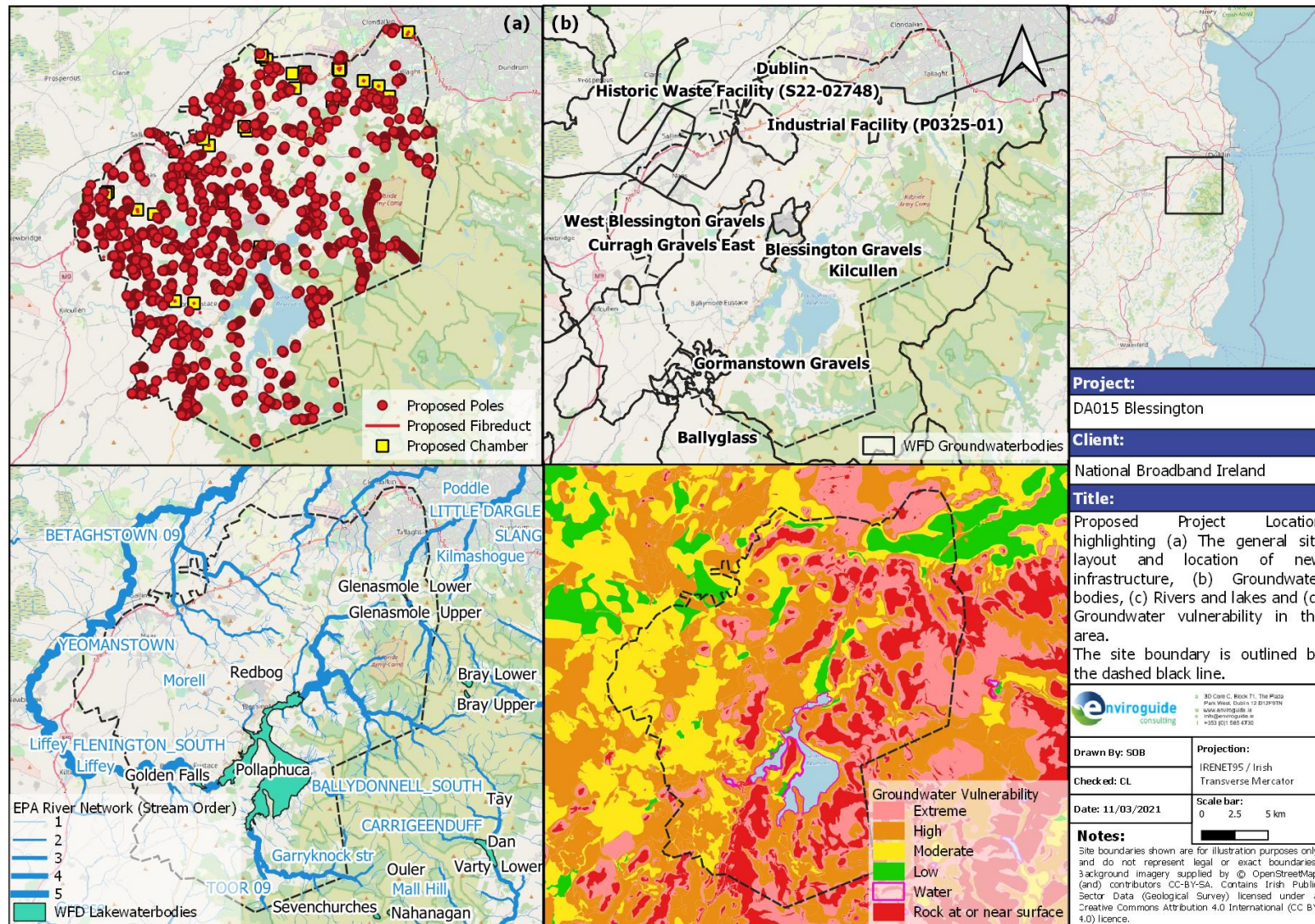


FIGURE 4. PROPOSED PROJECT LOCATION SHOWING THE LOCATION OF NEW INFRASTRUCTURE AND VARIOUS ENVIRONMENTAL FEATURES

2.5 Methodology

2.5.1 Desk Study

A desktop study was carried out to collate and review available information, datasets, and documentation sources relevant for the completion of the Screening Report. The desktop study, completed in March 2021, relied on the following sources:

- National Parks and Wildlife Service (NPWS) datasets.
- Geological Survey Ireland (GSI) online datasets and mapping.
- Environmental Protection Agency (EPA) mapping and datasets.
- OSI aerial imagery and Discovery Series mapping.
- Satellite imagery from various sources and dates (Google, Digital Globe, Bing).
- The Status of EU Protected Habitats in Ireland (NPWS).
- Office of Public Works (OPW) Flood Plans (<https://www.floodinfo.ie/map/floodplans/>).
- Department of Agriculture, Food and the Marine Forestry Licence Viewer <https://forestry-maps.apps.rhos.agriculture.gov.ie/>

For a complete list of the specific documents consulted as part of this assessment, see *Section 4 References*.

2.5.2 Assessment of Impacts

Once the potential impacts that may arise from the Proposed Project are identified, the significance of these is assessed through the use of key indicators:

- Habitat loss or alteration.
- Habitat/species fragmentation.
- Disturbance and/or displacement of species.
- Changes in population density; and
- Changes in water quality and resource.

In line with the EPA Guidelines (EPA, 2017), the following terms are defined when quantifying duration:

TABLE 3. DEFINITION OF DURATIONS (EPA, 2017).

Description of Duration	Corresponding Time Frame
Momentary Effects	Effects lasting from seconds to minutes
Brief Effects	Effects lasting less than a day
Temporary Effects	Effects lasting less than a year
Short-term Effects	Effects lasting one to seven years.
Medium-term Effects	Effects lasting seven to fifteen years.
Long-term Effects	Effects lasting fifteen to sixty years

Permanent Effects	Effects lasting over sixty years
Reversible Effects	Effects that can be undone, for example through remediation or restoration
Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

The criterion for confidence levels of the predicted likely impacts are given below in Table 4. The impact significance criteria follow EPA guidance (EPA, 2017).

TABLE 4. IMPACT SIGNIFICANCE CRITERIA (EPA, 2017).

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its <u>character, magnitude, duration</u> or <u>intensity alters a sensitive aspect of the environment</u>

2.5.3 Identification of Relevant European Sites

The methodology used to identify relevant European sites comprised the following:

- Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) to identify European sites which could potentially be affected by the Proposed Project.
- The catchment data were used to establish or discount potential hydrological connectivity between the Project and any European sites. The hydrological catchments are shown in Figure 5.
- Where relevant, the presence of a substantial marine buffer was used to discount potential marine hydrological connectivity between the Project Boundary and any European sites.
- All European sites within 15km of the Proposed Project were identified and included in the precautionary Zone of Influence (ZOI) of the Proposed Project (**Error! Reference source not found.** and Table 5). In addition, the potential for connectivity with European sites at distances of greater than 15km from the Proposed Project was also considered

in this initial assessment. In this case, there is no potential connectivity between the Proposed Project site and European sites located at a distance greater than 15km.

- Table 5 provides details of all relevant European sites as identified in the preceding steps which are within the precautionary ZOI of the Proposed Project. The assessment considers any potential direct or indirect impacts of the Project on European sites. Where significant effects are ruled out, a rationale is provided.
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report.

There is absolutely no reliance placed in this Appropriate Assessment Screening Report on measures intended to avoid/reduce harmful effects on the European sites.

2.5.4 Identification of Infrastructure Installation works within/adjacent to European sites.

To identify whether any installation works for the proposed items of infrastructure are within 30m or less of a European site, the following process was undertaken:

- Using a Geographic Information System (GIS) the locations of all new proposed items of infrastructure were overlaid onto the locations of all European sites in Ireland and Northern Ireland.
- Analysis was performed using GIS which identified any individual feature proposed to be installed within 30m or less of a European site.

If individual features are identified they are recorded and presented on a drawing or series of drawings as required.

2.5.5 Assessment of the Impact of Infrastructure Installation works within, adjacent to or upstream of European sites.

The following process is undertaken to assess whether the installation of individual items of new infrastructure within, adjacent to or upstream of a European site may give rise to significant effects upon a European site:

- The survey data for each proposed location is reviewed along with available aerial imagery of the location.
- If the proposed infrastructure locations lie along the public road network, Google street-view imagery of the location is reviewed, if available.
- The context of the proposed infrastructure is also considered; for example, the new infrastructure is assessed to determine if it will be filling in gaps in an existing run of poles, or if it will be an entirely new string of poles.
- The QI/SCI species and Conservation Objectives of the European site are considered when reaching a conclusion as to whether or not the infrastructure has the potential to give rise to a significant effect.
- All items of infrastructure within a 30m buffer of relevant EPA waterbody GIS layers (e.g., river, lakes, transitional and coastal waterbodies) were assessed to determine

potential hydrological linkages with European sites. A distance of 30m was chosen to account for differences in river width and potential mapping errors.

- If the location of the proposed infrastructure is validated as being correct, and the site where the installation works are proposed cannot be adequately assessed using aerial and other available imagery, the location of the proposed infrastructure will be assessed by way of a field survey to identify potential likely significant effects on the European Site.

2.6 European Sites within the Zone of Influence

16 SACs and 4 SPAs are located within the precautionary ZOI of the Proposed Project site.

Installation work within European sites will be limited to a total of 40 new items of infrastructure, which will be installed within *Glenasmole Valley SAC*, *Wicklow Mountains SAC*, and *Wicklow Mountains SPA* (**Error! Reference source not found.** and Figure 9). These items will be installed alongside the existing road network, and the impact of the installation of each item of infrastructure inside the aforementioned European site is further assessed in Section 2.8.

Infrastructure intersecting with the 30m SAC buffer and 30m SPA buffer are identified in Figure 6 and Figure 7, respectively. A total of 41 no. items of infrastructure (39 poles and 2 lengths of fibreduct) will be installed within the 30m SAC buffer and 10 no. items of new infrastructure (10 poles) will be placed within the 30m SPA buffer.

In the case of the Proposed Project, it could be concluded using a desk-study that the installation of all of the identified items of infrastructure would not result in significant effects on European sites, i.e., field surveys were not required. A desk study was sufficient as the proposed location of the infrastructure within European Sites was located adjacent to the existing public/private road network and could be readily assessed using aerial imagery and up-to-date GIS data available from the NPWS¹. The habitat at these roadside locations consisted of made ground, grassy verges and/or hedging and was not a QI habitat for any European Site or important habitat for any QI/SCI species. The results of the assessment methodology detailed in section 2.5.5 of this report are presented in Table 6.

¹ <https://www.npws.ie/maps-and-data/habitat-and-species-data>

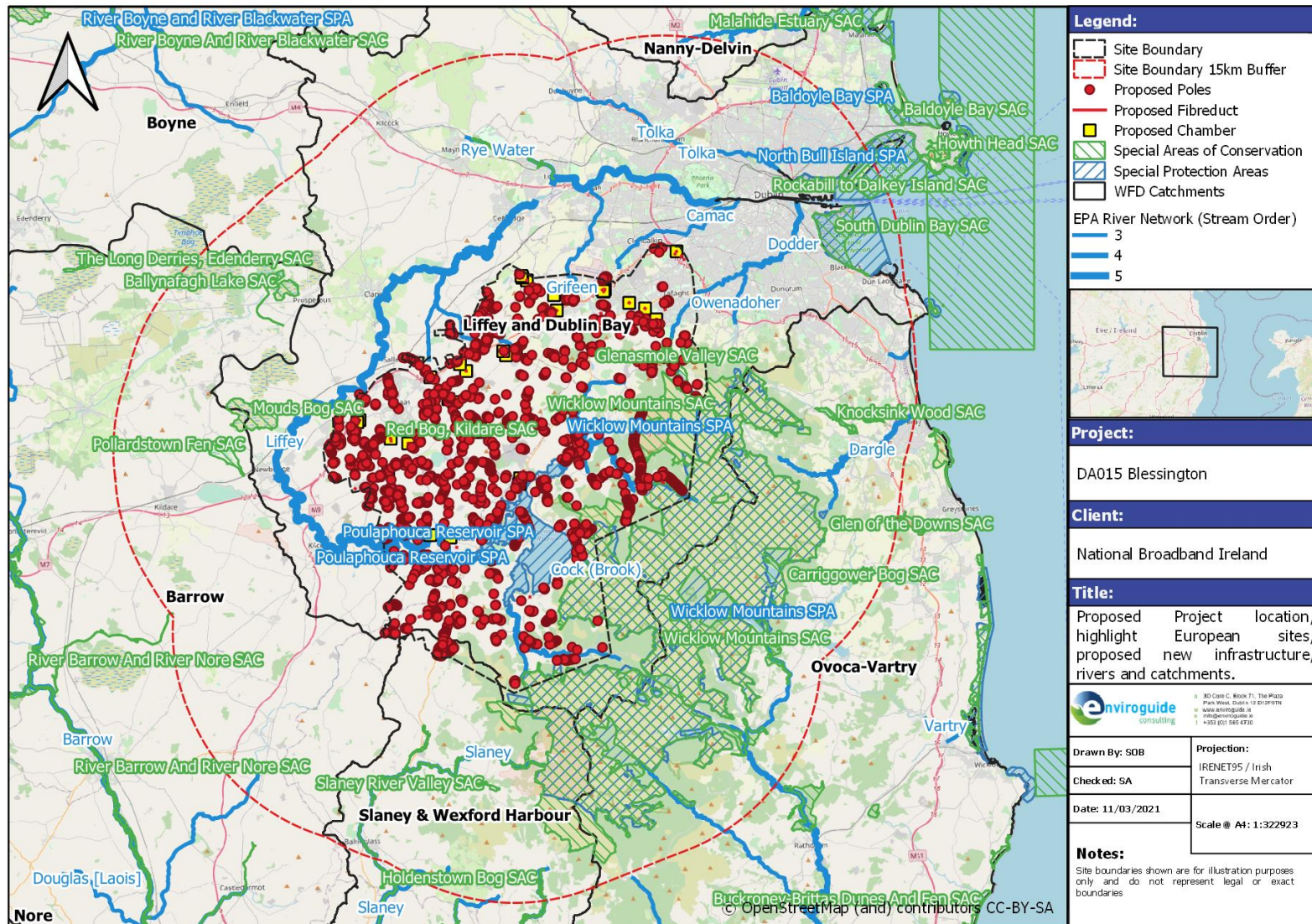


FIGURE 5. PROPOSED PROJECT LOCATION

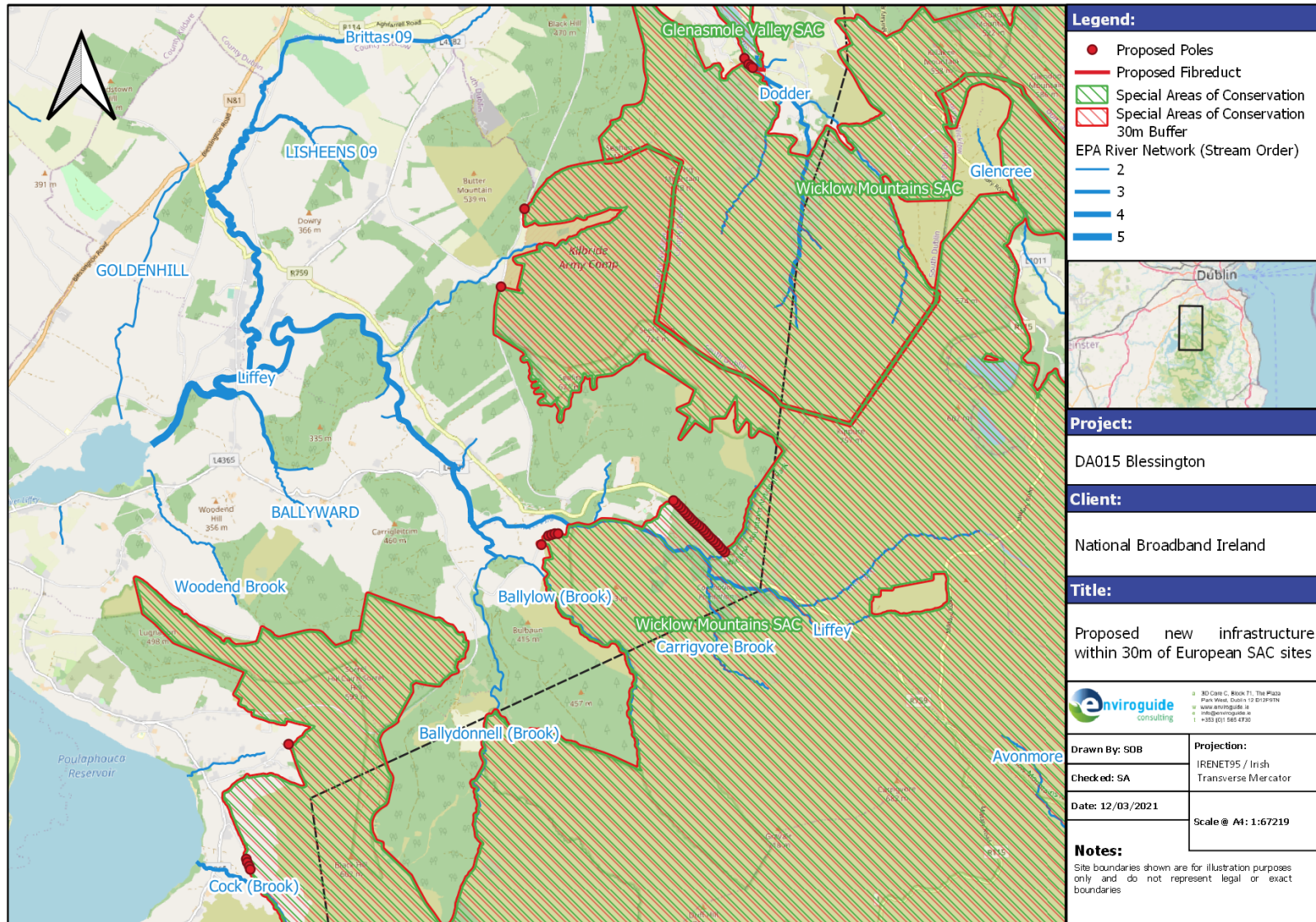


FIGURE 6. NEW ITEMS OF INFRASTRUCTURE LYING WITHIN A 30M BUFFER OF EUROPEAN SAC SITES.

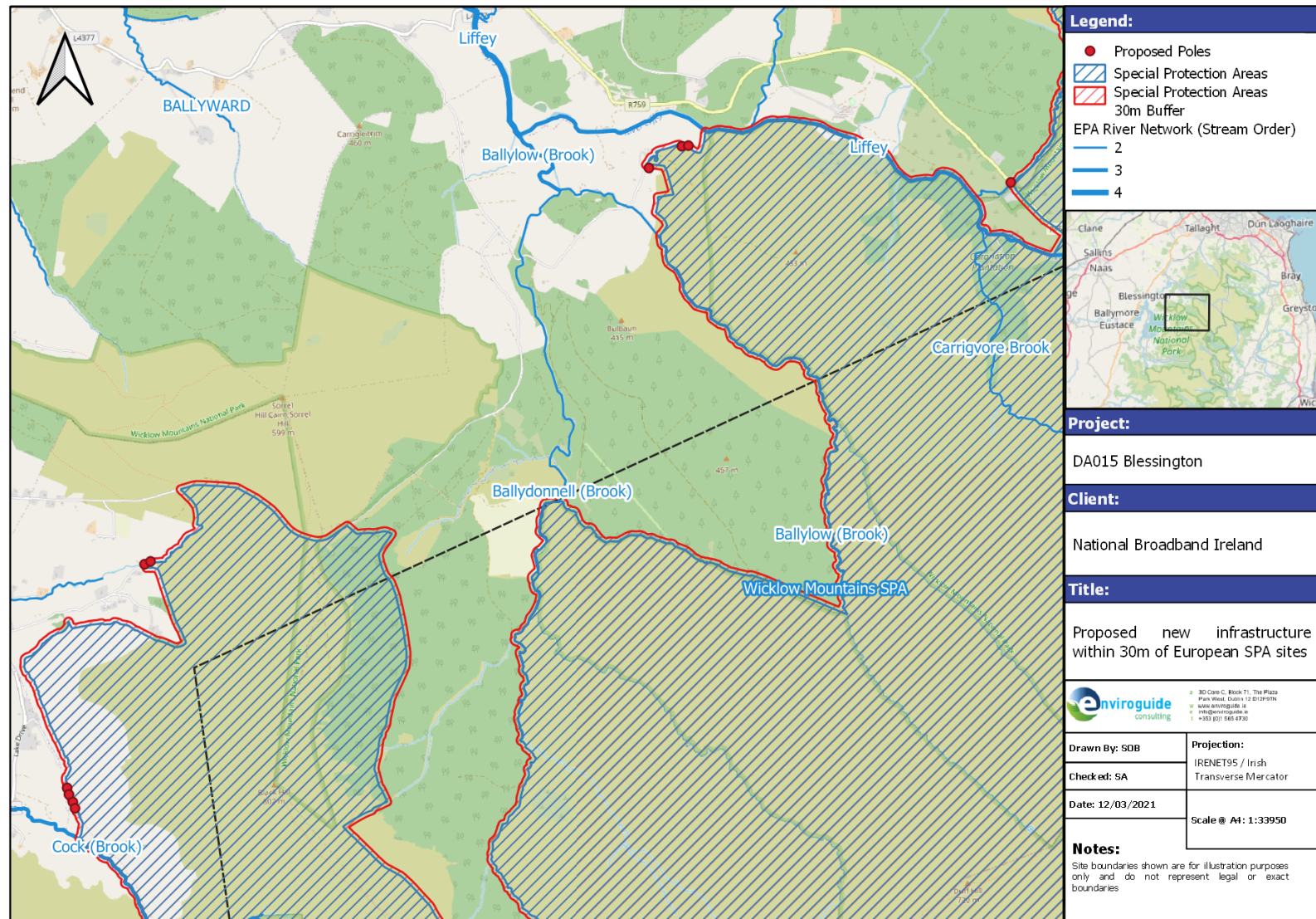


FIGURE 7. NEW ITEMS OF INFRASTRUCTURE LYING WITHIN A 30M BUFFER OF EUROPEAN SPA SITES.

TABLE 5 EUROPEAN SITES WITHIN THE PRECAUTIONARY ZONE OF INFLUENCE OF THE PROPOSED PROJECT SITE, THE DISTANCE OF EACH EUROPEAN SITE TO THE PROJECT BOUNDARY AND THE POTENTIAL DIRECT AND INDIRECT IMPACTS ON EACH EUROPEAN SITE AS A RESULT OF THE PROPOSED DEVELOPMENT. WHERE NO IMPACTS ARE ENVISAGED, A RATIONALE IS PROVIDED.

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
Special Areas of Conservation (SAC)					
Glenasmole Valley SAC (001209)	<p>Generic Conservation Objectives Version 7.0 (NPWS, 2020a)</p> <ul style="list-style-type: none"> - [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) - [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) - [7220] Petrifying springs with tufa formation (Cratoneurion) 	Within the project route	<p>Loss / alteration of habitat along project route, which passes within SAC due to erection of poles or excavations for underground chambers or cables.</p> <p>Pollution of watercourse from potential sediment / pollutants entering SAC directly, or via various waterbodies which intersect project route and flow into SAC.</p>	None envisaged	
Wicklow Mountains SAC (2122)	<p>Conservation Objectives Version 1.0 (NPWS, 2017a)</p> <ul style="list-style-type: none"> - [3110] Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) - [3160] Natural dystrophic lakes and ponds - [4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> - [4030] European dry heaths - [6130] Calaminarian grasslands of the <i>Violetalia calaminariae</i> 	Within the project route	Loss / alteration of habitat along project route, which passes within SAC due to erection of poles or excavations for underground chambers or cables.	Disturbance to designated species from potential noise generated during installation phase	

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
	<ul style="list-style-type: none"> - [6230] Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) - [7130] Blanket bogs (* if active bog) - [8110] Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) - [8210] Calcareous rocky slopes with chasmophytic vegetation - [8220] Siliceous rocky slopes with chasmophytic vegetation - [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles - [1355] <i>Lutra lutra</i> (Otter) 		<p>Pollution of watercourse from potential sediment / pollutants entering SAC directly, or via various waterbodies which intersect project route and flow into SAC.</p>		
<p>Red Bog, Kildare SAC (000397)</p>	<p>Generic Conservation Objectives Version 7.0 (NPWS, 2019a)</p> <ul style="list-style-type: none"> - [7140] Transition mires and quaking bogs 	<p>Within the project route</p>	<p>Loss / alteration of habitat along project route, which passes within SAC due to erection of poles or excavations for underground chambers or cables.</p> <p>Pollution of watercourse from potential sediment / pollutants entering SAC directly, or via various waterbodies which intersect project route and flow into SAC.</p>	<p>None envisaged</p>	

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
Slaney River Valley SAC (000781)	<p>Conservation Objectives Version 1.0 (NPWS, 2011a)</p> <ul style="list-style-type: none"> - [1130] Estuaries - [1140] Mudflats and sandflats not covered by seawater at low tide. - [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) - [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) - [3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation - [91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles - [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) - [1029] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) - [1095] <i>Petromyzon marinus</i> (Sea Lamprey) - [1096] <i>Lampetra planeri</i> (Brook Lamprey) - [1099] <i>Lampetra fluviatilis</i> (River Lamprey) - [1103] <i>Alosa fallax fallax</i> (Twaite Shad) - [1106] <i>Salmo salar</i> (Salmon) - [1355] <i>Lutra lutra</i> (Otter) - [1365] <i>Phoca vitulina</i> (Harbour Seal) 	3.2km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection.</p>
Mouds Bog SAC (002331)	<p>Conservation Objectives Version 1.0 (NPWS, 2015a)</p> <ul style="list-style-type: none"> - [7110] Active raised bogs - [7120] Degraded raised bogs still capable of natural regeneration. 	3.7km	None envisaged	None envisaged	No potential for direct impacts as SAC is not within project route.

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
	<ul style="list-style-type: none"> - [7150] Depressions on peat substrates of the Rhynchosporion 				No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection.
Pollardstown Fen SAC (000396)	<p>Generic Conservation Objectives Version 7.0 (NPWS, 2020b)</p> <ul style="list-style-type: none"> - [7210] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> - [7220] Petrifying springs with tufa formation (Cratoneurion) - [7230] Alkaline fens - [1013] <i>Vertigo geyeri</i> (Geyer's Whorl Snail) - [1014] <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) - [1016] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) 	5.8km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.</p>
Rye Water Valley/Carton SAC (001398)	<p>Generic Conservation Objectives Version 7.0 (NPWS, 2020c)</p> <ul style="list-style-type: none"> - [7220] Petrifying springs with tufa formation (Cratoneurion) - [1014] <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) - [1016] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) 	6.8km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
					project site and absence of hydrological connection.
Ballynafagh Lake SAC (001387)	Generic Conservation Objectives Version 7.0 (NPWS, 2020d) <ul style="list-style-type: none"> - [1016] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) - [1065] <i>Euphydryas aurinia</i> (Marsh Fritillary) 	7.2km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.</p>
Knocksink Wood SAC (000725)	Generic Conservation Objectives Version 7.0 (NPWS, 2020e) <ul style="list-style-type: none"> - [7220] Petrifying springs with tufa formation (Cratoneurion) - [91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles - [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) 	7.8km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
					different surface water catchment.
Ballynafagh Bog SAC (000391)	<p>Conservation Objectives Version 1.0 (NPWS, 2015b)</p> <ul style="list-style-type: none"> - [7110] Active raised bogs - [7120] Degraded raised bogs still capable of natural regeneration. - [7150] Depressions on peat substrates of the Rhynchosporion 	8.2km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.</p>
South Dublin Bay SAC (000210)	<p>Conservation Objectives Version 1.0 (NPWS, 2013a)</p> <ul style="list-style-type: none"> - [1140] Mudflats and sandflats not covered by seawater at low tide. - [1210] Annual vegetation of drift lines - [1310] Salicornia and other annuals colonising mud and sand. - [2110] Embryonic shifting dunes 	9.4km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection.</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
Ballyman Glen SAC (000713)	<p>Conservation Objectives Version 1.0 (NPWS, 2019b)</p> <ul style="list-style-type: none"> - [7220] Petrifying springs with tufa formation (Cratoneurion) - [7230] Alkaline fens 	11.1km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.</p>
North Dublin Bay SAC (000206)	<p>Conservation Objectives Version 1.0 (NPWS, 2013b)</p> <ul style="list-style-type: none"> - [1140] Mudflats and sandflats not covered by seawater at low tide. - [1210] Annual vegetation of drift lines - [1310] Salicornia and other annuals colonising mud and sand. - [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) - [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) - [2110] Embryonic shifting dunes - [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) - [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) - [2190] Humid dune slacks - [1395] <i>Petalophyllum ralfsii</i> (Petalwort) 	12.5km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
Carriggower Bog SAC (000716)	Generic Conservation Objectives Version 7.0 (NPWS, 2019c) - [7140] Transition mires and quaking bogs	12.9km	None envisaged	None envisaged	No potential for direct impacts as SAC is not within project route. No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.
River Barrow and River Nore SAC (002162)	Conservation Objectives Version 1.0 (NPWS, 2011b) - [1130] Estuaries - [1140] Mudflats and sandflats not covered by seawater at low tide. - [1170] Reefs - [1310] Salicornia and other annuals colonising mud and sand. - [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) - [1410] Mediterranean salt meadows (<i>Juncetalia maritim</i>) - [3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitriche-Batrachion vegetation - [4030] European dry heaths - [6430] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	14.8km	None envisaged	None envisaged	No potential for direct impacts as SAC is not within project route. No potential for indirect impacts due to significant distance from the project site and located on a different surface water catchment.

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
	<ul style="list-style-type: none"> - [7220] Petrifying springs with tufa formation (Cratoneurion) - [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles - [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) - [1016] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) - [1029] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) - [1092] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) - [1095] <i>Petromyzon marinus</i> (Sea Lamprey) - [1096] <i>Lampetra planeri</i> (Brook Lamprey) - [1099] <i>Lampetra fluviatilis</i> (River Lamprey) - [1103] <i>Alosa fallax fallax</i> (Twaite Shad) - [1106] <i>Salmo salar</i> (Salmon) - [1355] <i>Lutra lutra</i> (Otter) - [1421] <i>Trichomanes speciosum</i> (Killarney Fern) - [1990] <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) 				
Glen of the Downs SAC (000719)	<p>Conservation Objectives Version 1.0 (NPWS, 2020f)</p> <ul style="list-style-type: none"> - [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 	14.8km	None envisaged	None envisaged	<p>No potential for direct impacts as SAC is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and located on a</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
					different surface water catchment.
Special Protection Areas (SPA)					
Wicklow Mountains SPA (004040)	Generic Conservation Objectives Version 7.0 (NPWS, 2020g) <ul style="list-style-type: none"> - [A098] Merlin (<i>Falco columbarius</i>) - [A103] Peregrine (<i>Falco peregrinus</i>) 	Within the project route	<p>Loss / alteration of habitat along project route, which passes within SPA due to erection of poles or excavations for underground chambers or cables.</p> <p>Pollution of watercourse from potential sediment / pollutants entering SPA directly, or via various waterbodies which intersect project route and flow into SPA.</p>	Disturbance to designated species from potential noise generated during installation phase	
Poulaphouca Reservoir SPA (004063)	Generic Conservation Objectives Version 7.0 (NPWS, 2020h) <ul style="list-style-type: none"> - [A043] Greylag Goose (<i>Anser anser</i>) - [A183] Lesser Black-backed Gull (<i>Larus fuscus</i>) 	Within the project route	Loss / alteration of habitat along project route, which passes within SPA due to erection of poles or excavations for	Disturbance to designated species from potential noise generated during installation phase	

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
			<p>underground chambers or cables.</p> <p>Pollution of watercourse from potential sediment / pollutants entering SPA directly, or via various waterbodies which intersect project route and flow into SPA.</p>		
South Dublin Bay and River Tolka Estuary SPA (004024)	<p>Conservation Objectives Version 1.0 (NPWS, 2015c)</p> <ul style="list-style-type: none"> - [A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) - [A130] Oystercatcher (<i>Haematopus ostralegus</i>) - [A137] Ringed Plover (<i>Charadrius hiaticula</i>) - [A141] Grey Plover (<i>Pluvialis squatarola</i>) - [A143] Knot (<i>Calidris canutus</i>) - [A144] Sanderling (<i>Calidris alba</i>) - [A149] Dunlin (<i>Calidris alpina</i>) - [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) - [A162] Redshank (<i>Tringa totanus</i>) - [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) - [A192] Roseate Tern (<i>Sterna dougallii</i>) - [A193] Common Tern (<i>Sterna hirundo</i>) - [A194] Arctic Tern (<i>Sterna paradisaea</i>) - [A999] Wetland and Waterbirds 	9.4km	None envisaged	None envisaged	<p>No potential for direct impacts as SPA is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection</p>
North Bull Island SPA (004006)	<p>Conservation Objectives Version 1.0 (NPWS, 2015c)</p> <ul style="list-style-type: none"> - [A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) - [A048] Shelduck (<i>Tadorna tadorna</i>) 	12.5km	None envisaged	None envisaged	No potential for direct impacts as

Site Name & Code	Qualifying Interests	Distance to Project Route	Potential Direct Impacts	Potential Indirect Impacts	Rationale for exclusion
	<ul style="list-style-type: none"> - [A052] Teal (<i>Anas crecca</i>) - [A054] Pintail (<i>Anas acuta</i>) - [A056] Shoveler (<i>Anas clypeata</i>) - [A130] Oystercatcher (<i>Haematopus ostralegus</i>) - [A140] Golden Plover (<i>Pluvialis apricaria</i>) - [A141] Grey Plover (<i>Pluvialis squatarola</i>) - [A143] Knot (<i>Calidris canutus</i>) - [A144] Sanderling (<i>Calidris alba</i>) - [A149] Dunlin (<i>Calidris alpina</i>) - [A156] Black-tailed Godwit (<i>Limosa limosa</i>) - [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) - [A160] Curlew (<i>Numenius arquata</i>) - [A162] Redshank (<i>Tringa totanus</i>) - [A169] Turnstone (<i>Arenaria interpres</i>) - [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) - [A999] Wetland and Waterbirds] 				<p>SPA is not within project route.</p> <p>No potential for indirect impacts due to significant distance from the project site and absence of hydrological connection</p>

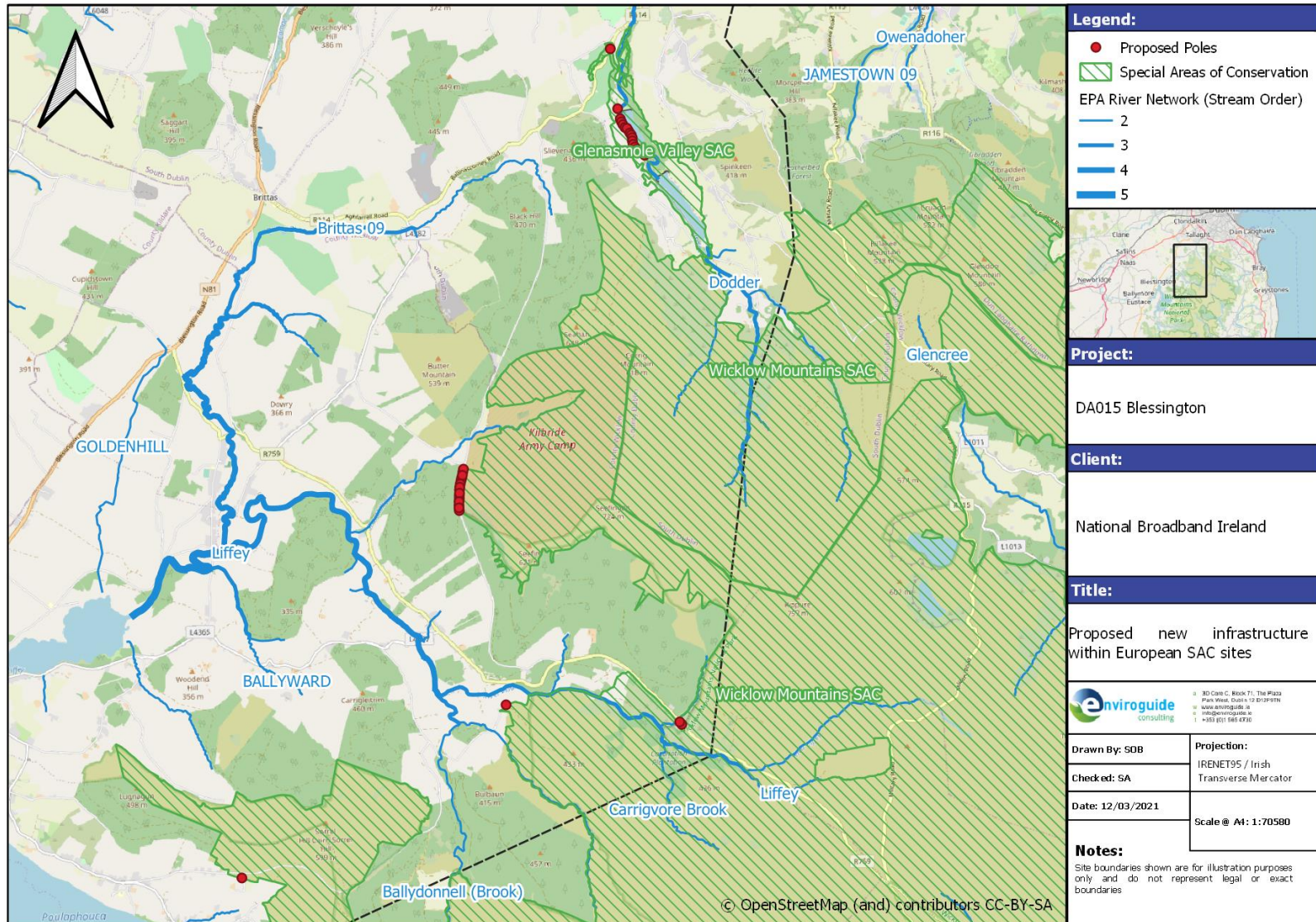


FIGURE 8 NEW INFRASTRUCTURE FEATURES WITHIN SAC SITES

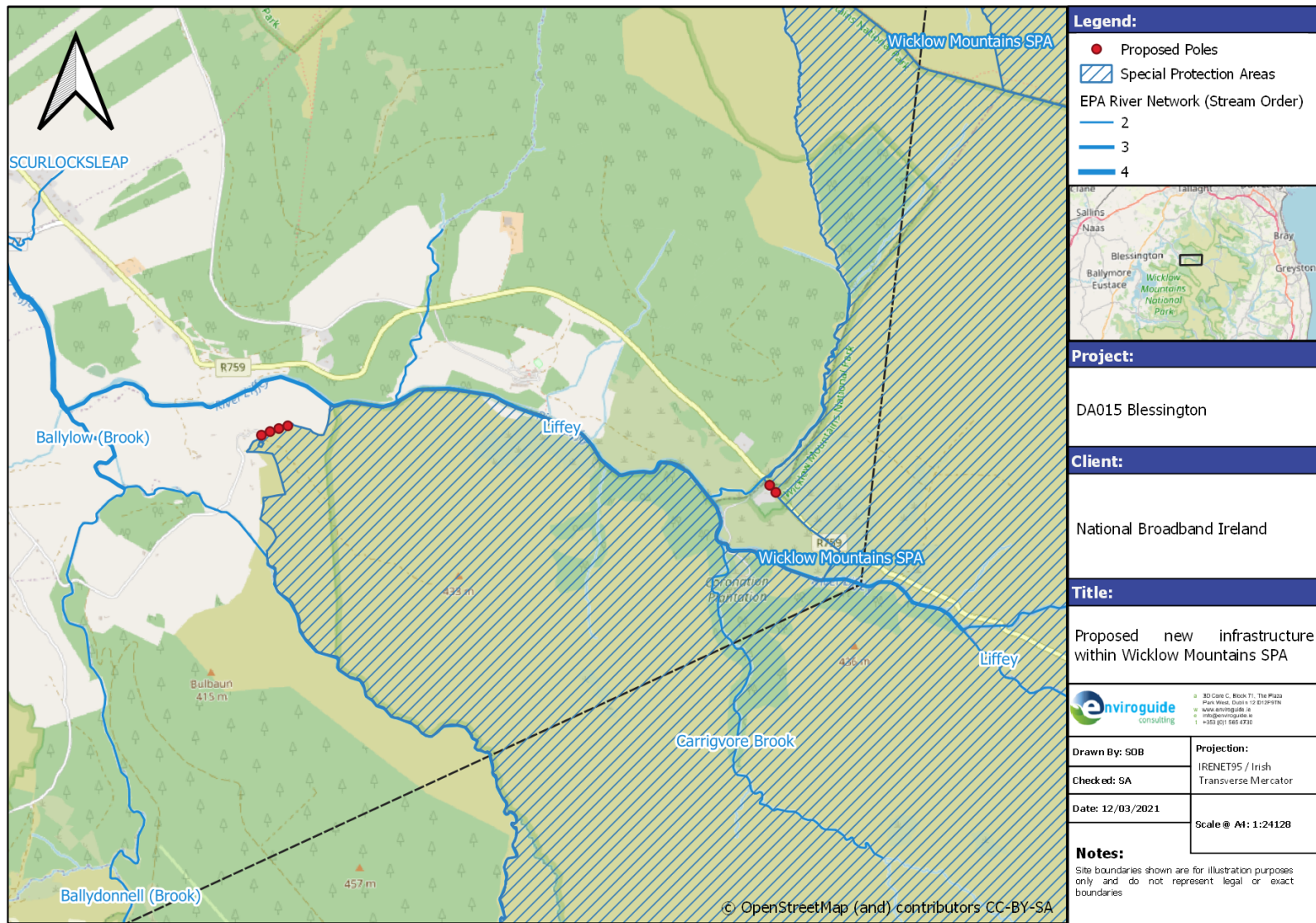


FIGURE 9 NEW INFRASTRUCTURE FEATURES WITHIN SPA SITES

2.7 Figure 10 Figure 11 Brief Description of European sites

All 20 of the European sites within the precautionary ZOI of the Project were assessed for potential direct and indirect impacts. 15 European sites were screened out following this assessment (Table 5). It was concluded that these European sites would not be directly or indirectly affected by the Proposed Project due to the minimal nature of the proposed installation activities, the absence of hydrological pathways between the Project and the site, some of which are on separate catchments, and/or the considerable distance between the Project area and the European site (typically several kilometres). Shown below is a brief description of the remaining European sites (Glenasmole Valley SAC, Wicklow Mountains SAC, Red Bog Kildare SAC, Wicklow Mountains SPA, and Poulaphouca Reservoir SPA) which will be further assessed in section 2.9 as it has a direct connection with the project route. The below description is taken from the "Site Description" section of the NPWS Natura 2000 Standard Data Form.

2.7.1 Glenasmole Valley SAC (001209)

Glenasmole Valley lies at the northern foothills of the Dublin and Wicklow Mountains. It is a glaciated valley, with drift deposits, consisting of fluvio-glacial sands and gravels of varying thickness and rich in Carboniferous limestone, occurring on the slopes. Spring lines occur along both sides of the northern part of the valley. The River Dodder flows through the valley and within the site the river has been impounded to form two reservoirs. Associated with the reservoirs are areas of swamp and marsh vegetation. The valley is heavily wooded, mostly with mixed woodland of both deciduous and coniferous species but also some native woodland. Dry calcareous pasture grassland, improved to varying degrees, is a main habitat of the valley sides and occurs in association with wet grassland and, in places of seepage, fen or marsh type vegetation.

*The site has important examples of petrifying springs. The physical and chemical properties of the springs have been studied. Good examples of orchid rich calcareous grassland, including *Pseudorchis albida* (legally protected) and *Orchis morio* (Red Data Book species) are found. The quality of grassland is variable owing to agricultural improvement. *Molinia* meadows are also represented. Several other Red Data Book plant species occur, along with a host of rare or scarce plant species for Co. Dublin. The botany of this site has been well studied since the 19th century. The site has *Alcedo atthis*, and is important for bats, with four Red Data Book species present (*Pipistrellus pipistrellus*, *Nyctalus leisleri*, *Myotis daubentoni*, *Plecotus auritus*).*

2.7.2 Wicklow Mountains SAC (002122)

*An extensive upland site comprising much of the Wicklow Mountains and extending into Co. Dublin. The solid geology is mainly Leinster granites, flanked by Ordovician schists, mudstones and volcanics. The area has been glaciated and features fine examples of high corrie lakes, deep valleys and moraines. Most of the site is over 300m, with much ground over 600m and the highest peak of *Lugnaquilla* at 925m. The site includes the headwaters of several major rivers, including the *Liffey*, the *Dargle* and the *Slaney*. The substrate over much of the site is peat, with poor mineral soil on the slopes and lower ground. Exposed rock and scree is a feature. The dominant habitats on the site are blanket bog, heaths and upland grassland.*

*The site comprises the largest complex of upland habitats in eastern Ireland, with important examples of blanket bog, wet heath and dry heath, extensive in area and mostly of good quality. Alpine heath occurs at high levels, along with calcareous and siliceous rocky habitats harbouring an arctic-alpine flora. A fine series of oligotrophic lakes occur and some have *Salvelinus alpinus*. Several oakwoods of moderate quality, typical of the dry acidic woods of eastern Ireland, are found. Seven Red Data Book plant species occur, including the rare *Alchemilla alpina* and *Nitella gracilis* at its only Irish station. The site supports significant populations of breeding *Falco columbarius* and *Falco peregrinus*. The site is important for rare breeding passerines of oakwoods, notably *Phoenicurus phoenicurus* and *Phylloscopus sibilatrix*. The site also has breeding *Turdus torquatus* and *Lagopus lagopus*. *Lutra lutra* occurs on several of the riverine systems.*

2.7.3 Red Bog, Kildare SAC (000397)

*The site comprises a relatively small wetland which lies between moranic ridges. Open water is a principal habitat though there are no obvious inflowing or outflowing streams. Open water is fringed by various wetland habitats, with bog (raised type), fens and freshwater marsh. Some willow (*Salix* spp.) occurs. The surrounding land is improved grassland. An extensive quarrying operation occurs to the east and south of site.*

*The site displays a succession from open water (eutrophic in status) to ombrotrophic bog. Transition mire vegetation is considered to be well represented at this site, with some typical species. A small colony of *Larus ridibundus* has bred in the past (current status unknown), which is one of few nesting sites in eastern Ireland, and the site also has breeding *Aythya fuligula* and *Fulica atra*.*

2.7.4 Wicklow Mountains SPA (004040)

*This is an extensive upland site, comprising a substantial part of the Wicklow Mountains. The underlying geology of the site is mainly of Leinster granites, flanked by Ordovician schists, mudstones and volcanics. The area was subject to glaciation and features fine examples of glacial lakes, deep valleys and moraines. Most of site is over 300 m, with much ground over 600 m and the highest peak of *Lugnaquilla* at 925 m. The substrate over much of site is peat, with poor mineral soil occurring on the slopes and lower ground. Exposed rock and scree are features of the site. The dominant habitats present are blanket bog, heaths and upland grassland. Fine examples of native Oak woodlands are found in the Glendalough area. The site, which is within the Wicklow Mountains National Park, is fragmented into about 20 separate parcels of land.*

*The site supports good examples of both upland and woodland bird communities. It has breeding *Falco columbarius* and *Falco peregrinus*, as well as *Turdus torquatus* and *Lagopus lagopus*, both of the latter being Red-listed in Ireland. It is the only site in Ireland where *Mergus merganser* breeds regularly. It is important for rare breeding passerines of oakwoods, notably *Phoenicurus phoenicurus* and *Phylloscopus sibilatrix*. It also has *Sylvia borin* and *Sylvia atricapilla*.*

2.7.5 Poulaphouca Reservoir SPA (004063)

Poulaphouca Reservoir, located in the western foothills of the Wicklow Mountains, was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower. The reservoir covers an area of approximately 20 square kilometres and is the

largest inland water body in the mid-east and south-east regions. The reservoir receives water from two main sources, the River Liffey at the northern end, and the Kings River at the southern end. The exit is into the Liffey gorge at the western end. Underlying the reservoir are sands and gravels deposited during the last glaciation. The shores of the lake are mostly sandy. When water levels are low exposed lake muds are colonised by an ephemeral flora of annual plant species.

The site is of national importance for its population of Anser anser, which is one of the largest in the country. The site provides the main roost for the birds, with feeding mostly on improved grassland outside of the site. A range of other waterfowl species occur in relatively low numbers, including Cygnus cygnus, Anas penelope and Bucephala clangula. The reservoir attracts roosting gulls during winter, most notably a large population of Larus fuscus, which in Ireland is rare in winter away from the south coast.

2.8 Assessment of Significance of Potential Impacts

Installation work within European sites will be limited to:

- 40 proposed new poles.

which will be all placed along roads, laneways/farm tracks within *Glenasmole Valley SAC*, *Wicklow Mountains SAC*, and *Wicklow Mountains SPA*.

In summary, it was concluded that there is no potential for significant effects on the European site. Due to the minor, temporary nature of the proposed new infrastructure installations, no loss or fragmentation of QI habitat will occur as a result of the proposed Project, there will be no significant effects on QI/SCI species regarding disturbance, displacement or changes to population density and there will be no changes to the water quality and resource of any European Site. The following paragraphs outline the rationale for these conclusions.

2.8.1 Habitat Loss and Alteration

Should any of the estimated additional poles, chambers, or any excavations for underground cables fall within a European site, it could conceivably constitute a loss/alteration of habitat, although extremely insignificant in size, at the designated site. Furthermore, tree trimming along the stretches of the route that pass within/adjacent to the European sites also has the potential to cause minor habitat alteration/loss.

Installation work within the *Glenasmole Valley SAC*, *Wicklow Mountains SAC*, and *Wicklow Mountains SPA* will be limited to a total of 40 new items of infrastructure as outlined above.

Importantly, all the above listed infrastructure will be placed along existing roads, laneways/farm tracks. The habitat at these roadside locations consists of grassy verges and hedging, which are not qualifying interests for the European site.

It is noted that the vast majority of infrastructure required for the project is already in place and, as a result, tree trimming has been historically occurring along these sections on a regular basis. Therefore, it is considered that the proposed works will not cause a significant effect on the European sites.

No new infrastructure will be installed in Annex I Habitat outside of the European sites within the Project Boundary, particularly 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), and Petrifying springs with tufa formation (Cratoneurion) (7220) associated with Glenasmole Valley SAC, Northern Atlantic wet heaths with *Erica tetralix* (4010), European dry heaths (4030), 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), and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles (91A0) found in the Wicklow Mountains SAC, and Transition mires and quaking bogs (7140) located in Red Bog, Kildare SAC.

In conclusion, due to the minor and localised nature of the works, and the absence of loss/alteration of QI habitats designated for the European sites due to the Proposed Works, it is considered that the Proposed Project will not cause any significant negative impacts in relation to habitat loss/alteration at any European site.

2.8.2 Habitat / Species Fragmentation

Habitat fragmentation has been defined as the 'reduction and isolation of patches of natural environment' (Hall *et al.*, 1997 cited in Franklin *et al.*, 2002) usually due to an external disturbance such that an alteration of the spatial composition of a habitat occurs that alters the habitat and 'create[s] isolated or tenuously connected patches of the original habitat' (Wiens, 1989 cited in Franklin *et al.*, 2002). This results in spatial separation of habitat units which had previously been in a state of greater continuity.

Given the nature of the works, and as there will be no loss of QI habitats within any European site, it is not considered that habitat fragmentation will arise from the Proposed Project.

2.8.3 Disturbance and/or Displacement of Species

As part of the project works, there may be small scale installation activities taking place within/adjacent, or in close proximity to European sites. The installation activities, as described in section 2.4.2 consist of the erection of new poles, installation of new underground chambers and placement of new underground cable ducts.

2.8.3.1 Potential Impacts to QI and SCI Species

Installation work within European sites will be limited to a total of 40 new items of infrastructure as outlined above, which will be installed within the Glenasmole Valley SAC, Wicklow Mountains SAC, and Wicklow Mountains SPA. Figure 8 and Figure 9 above depict the overview of the additional infrastructure that will be installed, while Figure 12 to Figure 19 Figure 16 detail the location and name of the proposed infrastructure to be installed. This infrastructure will be installed along the existing road network.

In addition, a total of 223 poles, 8 chambers and 13 length of ducting are proposed to be placed within 30m of watercourses which may ultimately flow into European sites within the precautionary ZOI of the Project. There are numerous aquatic species associated with these sites which may be affected by the Project works, namely Salmon (*Salmo salar*), Sea Lamprey (*Petromyzon marinus*), Brook Lamprey (*Lampetra planeri*), River Lamprey (*Lampetra fluviatilis*), Twaite Shad (*Alosa fallax fallax*), Otter (*Lutra lutra*) and Harbour Seal (*Phoca*

vitulina). These new items of infrastructure were assessed for potential significant effects on downstream European sites and the species designated for them. As noted previously, a distance of 30m was chosen to account for differences in river width and mapping errors. It was concluded that these new items of infrastructure would not result in significant effects on European sites and the aquatic species therein for one or more of the following reasons:

- The new item(s) of infrastructure being placed an acceptable distance from a watercourse (e.g., not on or immediately adjacent to a riverbank).
- The new item(s) of infrastructure being placed on the opposite side of the road/laneway/track to the watercourse.
- The presence of a vegetation buffer (e.g., hedgerow) between the new item(s) of infrastructure and the watercourse,
- The distance between the new item(s) of infrastructure and downstream European site, and consequent dilution factor.

The Otter within the Wicklow Mountains SAC and SCI bird species associated with the Wicklow Mountains SPA and the Poulaphouca Reservoir SPA are the most likely species which may be susceptible to noise disturbance. However, given the very minor nature and short-term duration of the project works (the installation of a new pole or chamber and ducting will be within a very small, localised footprint and will not generate significant amounts of noise) it can be concluded that the Proposed Project will not have a significant effect on Otter or SCI bird species in close proximity to the works.

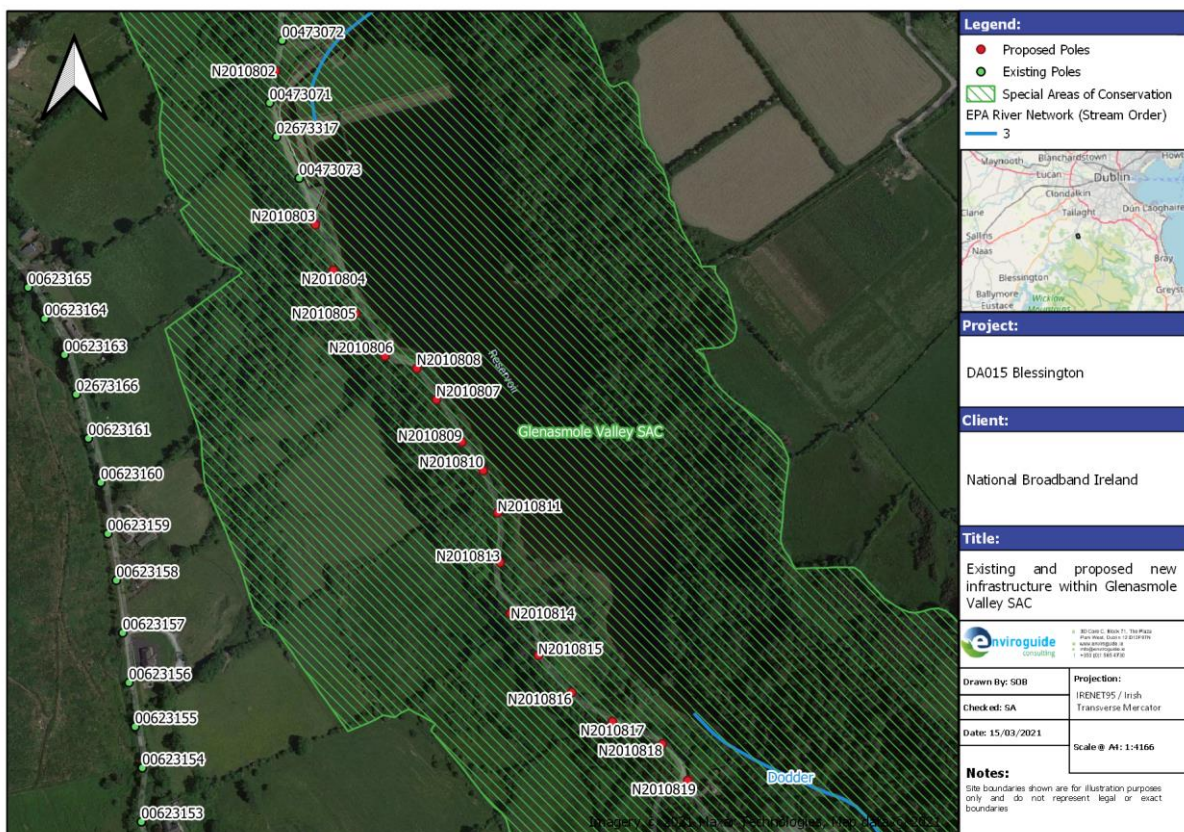


FIGURE 12 EXISTING AND NEW INFRASTRUCTURE WITHIN GLENASMOLE VALLEY SAC.

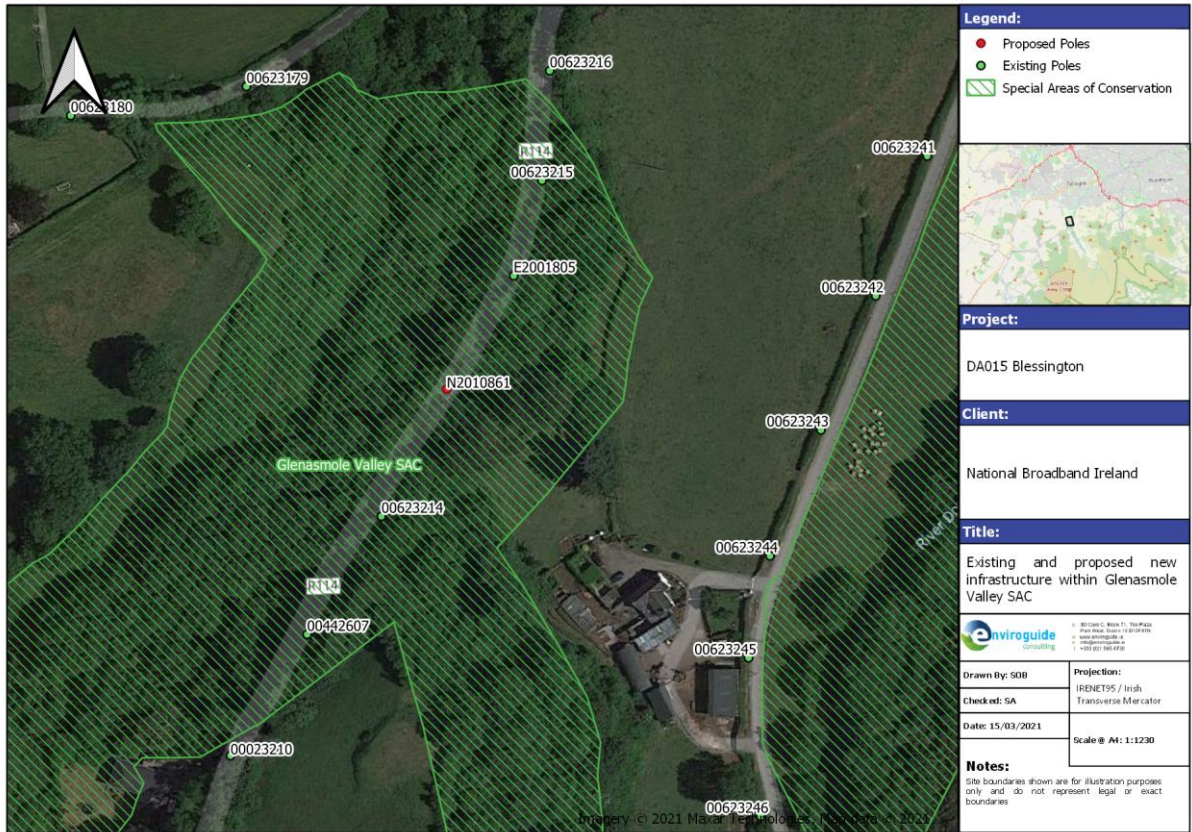


FIGURE 13 EXISTING AND NEW INFRASTRUCTURE WITHIN GLENASMOLE VALLEY SAC.

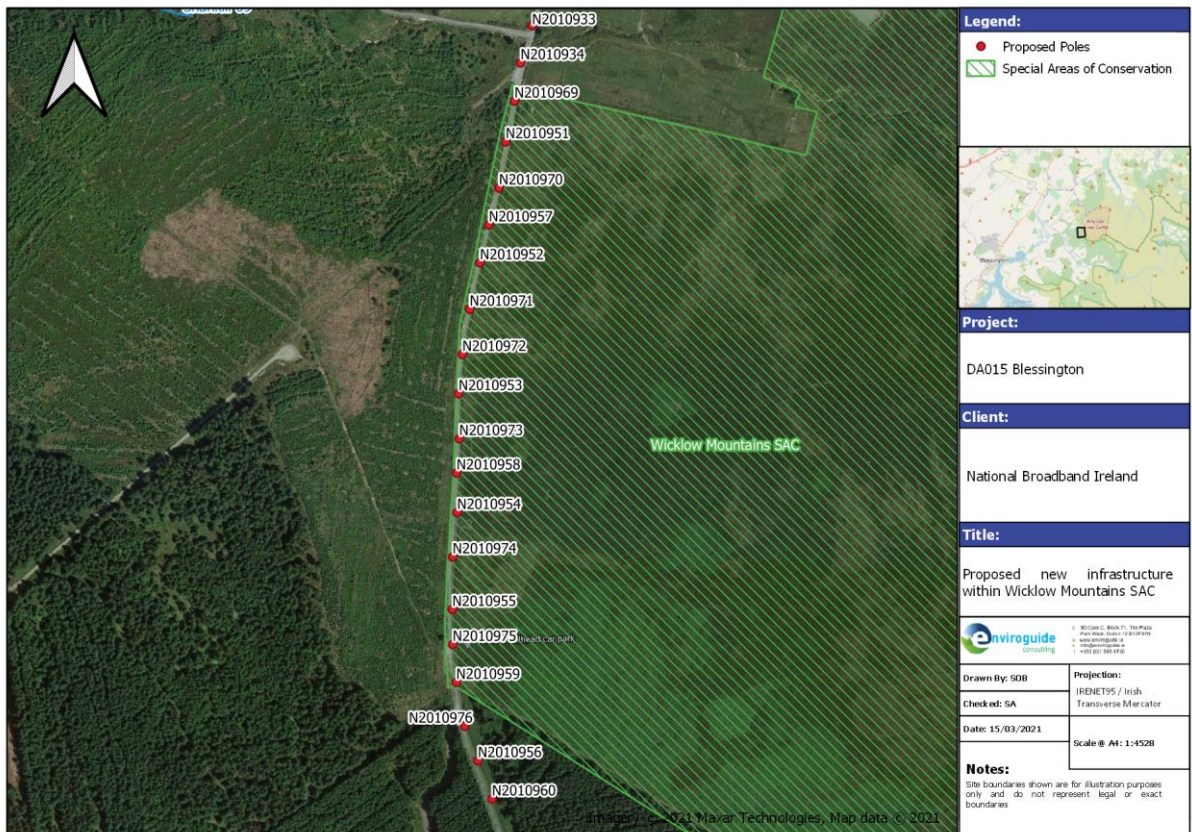


FIGURE 14 PROPOSED NEW INFRASTRUCTURE WITHIN WICKLOW MOUNTAINS SAC

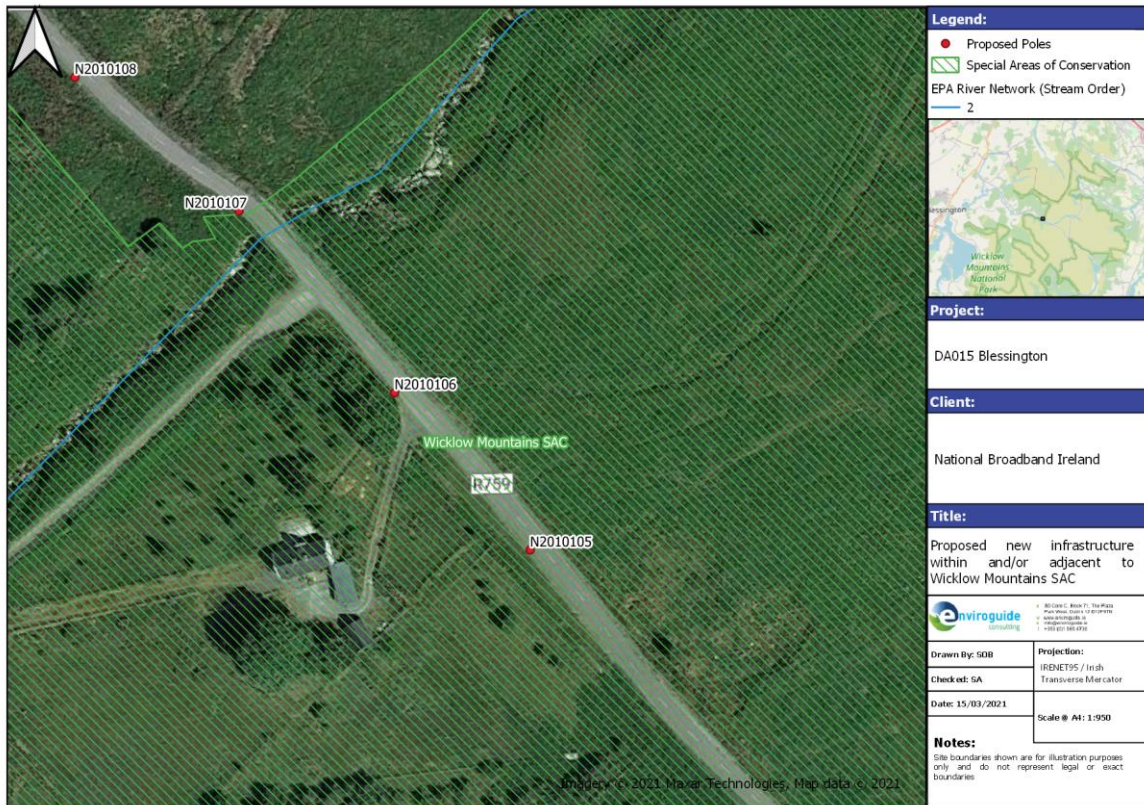


FIGURE 15 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO WICKLOW MOUNTAINS SAC

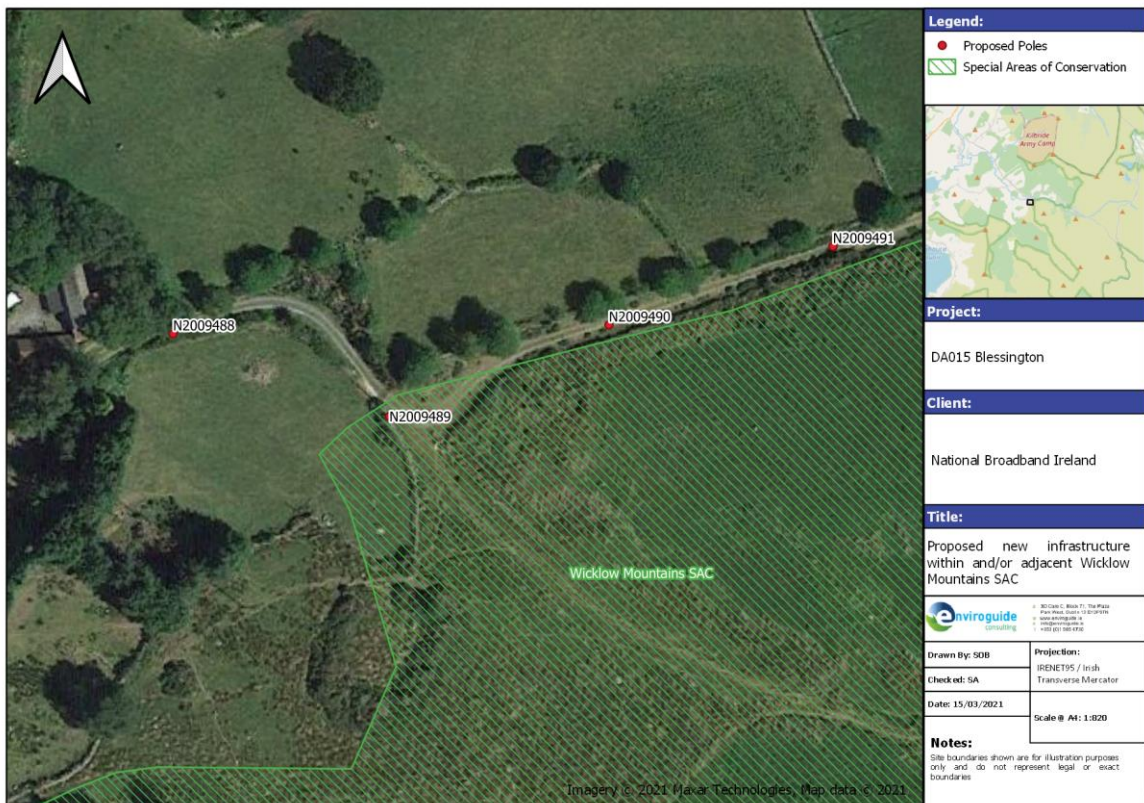


FIGURE 16 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO WICKLOW MOUNTAINS SAC

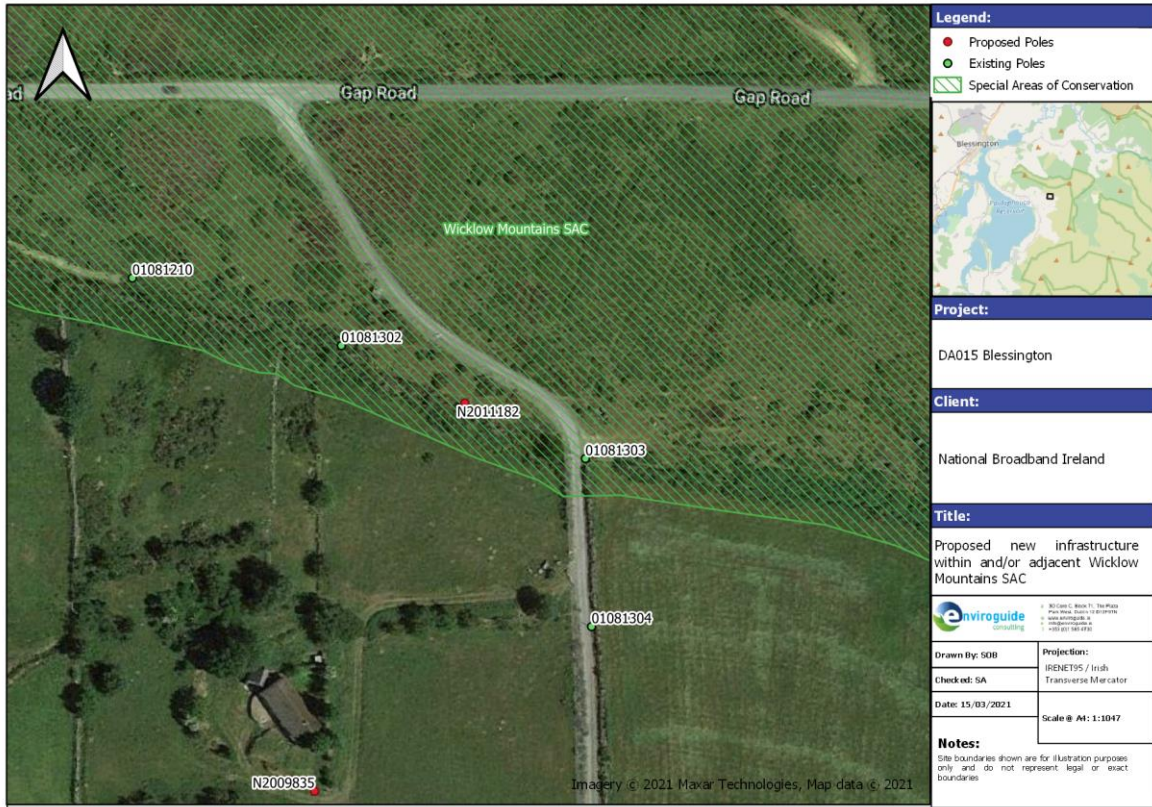


FIGURE 17 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT WICKLOW MOUNTAINS SAC

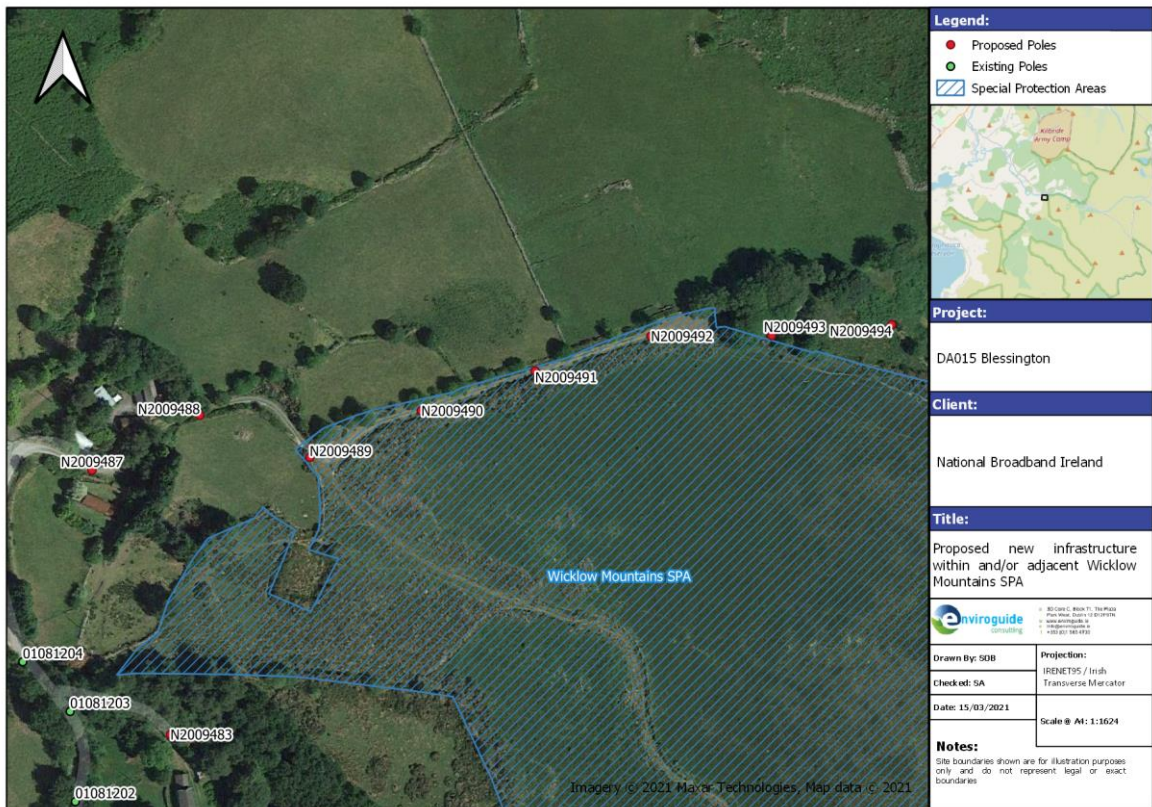


FIGURE 18 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO WICKLOW MOUNTAINS SPA

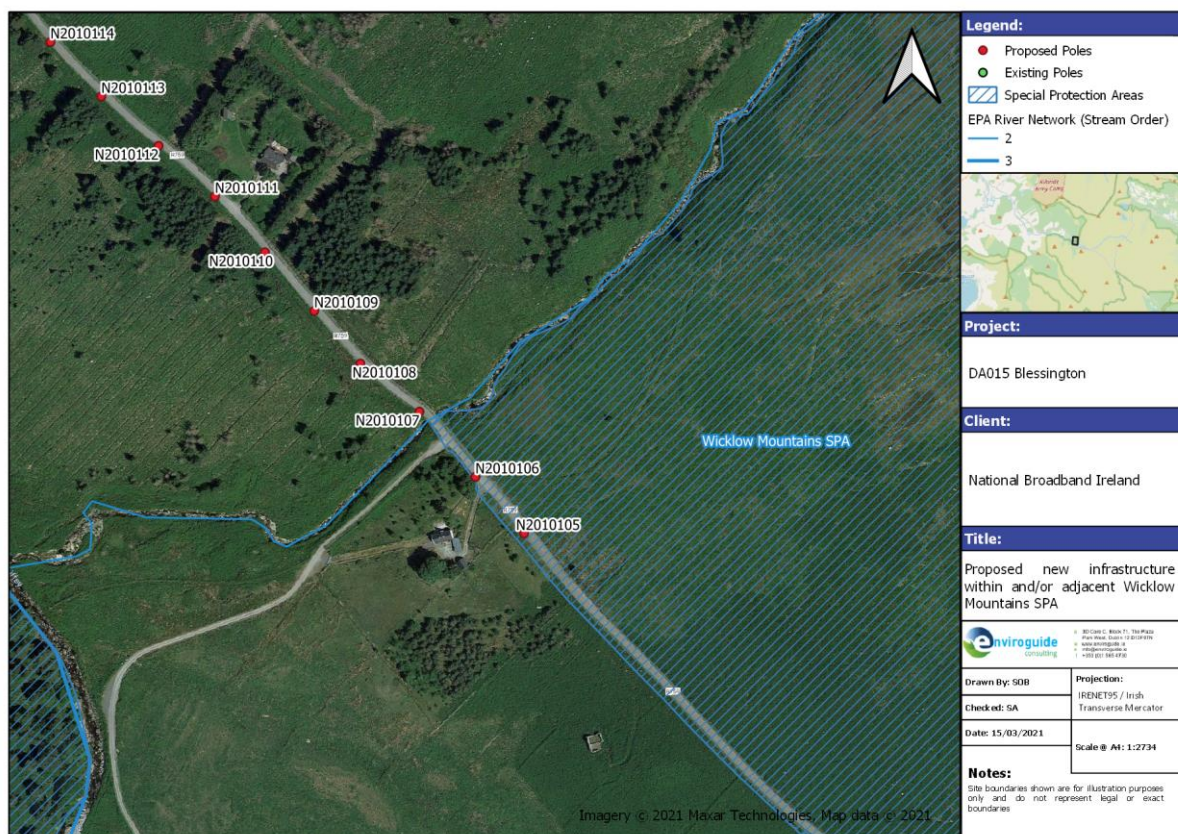


FIGURE 19 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO WICKLOW MOUNTAINS SPA

2.8.4 Changes in Population Density

For the reasons outlined in section 2.8.3 above, the Proposed Project will not cause any reduction in the baseline population of species associated with any European site.

2.8.5 Changes in Water Quality and Resource

The project route intersects with a large number of rivers and streams, which either flow through or discharge into a number of European sites.

A potential impact on the water quality of these European sites was identified through possible sediment run-off, caused by the project works, into waterbodies in close proximity to the project works. An additional potential impact on water quality was identified through accidental spillages of fuel or other substances.

All items of infrastructure within 30m or less of a waterbody were assessed to determine potential hydrological linkages with European sites. It was concluded that these items of infrastructure would not result in significant effects on European sites and the aquatic species therein for one or more of the following reasons:

- The new item(s) of infrastructure being placed an acceptable distance from a watercourse (e.g., not on or immediately adjacent to a riverbank).
- The new item(s) of infrastructure being placed on the opposite side of the road/laneway/track to the watercourse.

- The presence of a vegetation buffer (e.g., hedgerow) between the new item(s) of infrastructure and the watercourse.
- The distance between the new item(s) of infrastructure and downstream European site, and consequent dilution factor.

Furthermore, given:

- the very minor, localised nature and temporary duration of the project works.
- that the installation of a single new pole, chamber or ducting will be within a very small, localised footprint and will not generate significant amounts of sediment.
- that all surplus soil will be removed from site.
- that the project works do not include any water course crossing or instream works.
- that the Proposed Project will have no impact on the flow rates or nutrient levels of any waterbody.

it can be concluded that the proposed works will have no significant effect on water quality and resource in any European Site.

The poles being erected may carry the risk of contamination of soil and/or groundwater with creosote which is used as a preservative for telecommunications poles. Creosote is a dense non-aqueous liquid which is not soluble in water. Therefore, the risk associated with its use will be extremely localised by virtue of it not migrating through the watercourse or soil. The impact associated with its use can therefore be deemed negligible.

2.8.6 In-combination Effects

Cumulative impacts can be defined as “*impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*”. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

Plans include all statutory and non-statutory land use, framework and sectoral plans and strategies to the extent that they have the potential to have significant effects on a European site. This incorporates ‘plans and programmes’ covered by the SEA Directive, and other plans and strategies, including those that are designed or intended to benefit the environment or heritage, such as Heritage and Biodiversity plans, recreation/amenity plans or strategies, and River Basin Management Plan (*Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. Report (2009). Prepared by Department Environment, Heritage and Local Government).

The following plans were reviewed and considered for possible in-combination effects with the Proposed Project:

- The National Broadband Plan.
- Wicklow County Development Plan 2016 – 2022.
- 2nd Cycle River Basin Management Plan 2018 – 2021.

- Wicklow County Development Plan Strategic Flood Risk Assessment 2016 - 2022.

The National Broadband Plan (NBP) has been considered and while detailed designs are not currently available for neighbouring DAs, based on the same criteria used in this assessment, it is deemed that the NBP as a whole will not give rise to in-combination effects with the Blessington Project. There are no neighbouring DAs scheduled to have build works in parallel with the Blessington DA build, therefore no in-combination effects from adjoining DA's are possible.

The Wicklow County Development Plan 2016-2022 has addressed European sites, and their protection, through specific policies and objectives (NH-04).

The River Basin Management Plan is set out to protect and improve water quality, and as such will not result in negative in-combination effects with the current Project. Proposed measures within the Wicklow County Development Plan Strategic Flood Risk Assessment 2016 – 2022 include prohibiting development within river flood plains, requiring new developments be built utilising sustainable drainage techniques, and updating flood assessment risks and flood zone maps. It is not considered that these proposed measures will act in combination with the Proposed Project. Thus, upon examination of the listed plans, it is concluded that there is no possibility for any in-combination effects between these plans and the Proposed Project.

Projects considered to have significant effects on a European site and require consideration for Appropriate Assessment, include the following:

- All development that requires a planning permission process.
- All public development carried out by planning authorities.
- Exempted development either within a European site or which could potentially have a significant effect on European sites.
- All material contravention proposals.
- All other local authority authorised 'projects' – waste permits, discharge licenses; and
- recreation and amenity projects and road works.
- Forestry Operations
- Flooding and Drainage

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

Recent (within the last 3 years) pending and/or permitted planning permissions within c.500m of the proposed infrastructure located within a European site were reviewed, using the National Planning Application Database² and the Wicklow County Council Planning Application Interactive Map³. Given the minor and temporary nature of the installation works, a relatively small buffer of 500m was considered sufficient to assess in-combination effects

² <https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de>

³ <https://wicklow.maps.arcgis.com/apps/webappviewer/index.html?id=57b22c27e7c049fbac54117da1a20f60>

with existing proposed and/or permitted developments. Withdrawn, refused, and incomplete applications were eliminated from the search. Furthermore, all proposed and permitted forestry licences were considered. In this instance, all pending or permitted developments were small in scale to the extent that no significant in-combination effects were considered likely to arise (Table 6). There are numerous forestry licences for felling and thinning within the Project boundary. However, these forestry operations are a considerable distance from any proposed new infrastructure within European sites, and as such no significant in-combination effects are considered likely to arise.

2.8.7 Proposed Infrastructure within 30m of European Sites.

Infrastructure intersecting with the 30m SAC buffers and 30m SPA buffers are identified in Figure 6 and Figure 7, respectively. A total of 41 no. items of infrastructure (39 poles and 2 lengths of ducting) will be installed within the 30m SAC buffer and 10 no. items of infrastructure (10 poles) will be positioned within the 30m SPA buffer. Having assessed these items of infrastructure following the methodology outlined in section 2.5.5, it was concluded that none of the new items of infrastructure would result in significant effects to any European sites. The items outlined above are proposed to be installed within agricultural land or along roadways, tracks and lanes, in both urban and rural areas, thus resulting in no significant habitat loss. Furthermore, the project works will be very minor in nature and short-term in duration and therefore do not present a threat to any protected species.

TABLE 6 SUMMARY OF INTERSECTING INFRASTRUCTURE WITHIN EUROPEAN SITES.

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010973	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010974	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010971	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010972	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010802	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. nos. SD18B/0434, SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling, dwelling conversion)	No likelihood of significant effects
N2010975	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010953	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010861	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. nos. SD20A/0163, SD20B/0048, SD20B/0477	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (expansion of Montessori school, retain dwelling windows, dwelling extension and installation of septic tank).	No likelihood of significant effects
N2010954	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010805	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010951	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010806	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010952	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010803	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2011182	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	Ref. no. 181034	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (dwelling extension)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010804	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010809	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010810	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010957	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010807	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010958	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010808	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010955	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010813	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010814	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010811	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	Ref. no. SD19B/0461	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (construction of dwelling)	No likelihood of significant effects
N2010959	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010817	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010818	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010815	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010816	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010969	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010819	Utility Pole	Verge	Glenasmole Valley SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2010970	Utility Pole	Verge	Wicklow Mountains SAC	Visually assessed using Satellite Imagery	No	Proposed location on existing laneway that consists of grassy verges.	No likelihood of significant effects
N2010105	Utility Pole	Verge	Wicklow Mountains SAC / Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 181425	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (demolition of garage)	No likelihood of significant effects
N2010106	Utility Pole	Verge	Wicklow Mountains SAC / Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 181425	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (demolition of garage)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2009491	Utility Pole	Verge	Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 18723	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (dwelling and site works)	No likelihood of significant effects
N2009492	Utility Pole	Verge	Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 18723	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (dwelling and site works)	No likelihood of significant effects
N2009489	Utility Pole	Verge	Wicklow Mountains SAC / Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 18723	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (dwelling and site works)	No likelihood of significant effects

Barcode/Duct Label	Infrastructure Type	Location	Site Name	Assessment Methodology	Recent permitted or pending planning permissions within c. 500m of feature	Assessment Findings	Conclusion
N2009490	Utility Pole	Verge	Wicklow Mountains SPA	Visually assessed using Satellite Imagery	Ref. no. 18723	Proposed location on existing laneway that consists of grassy verges. Permitted applications are small scale (dwelling and site works)	No likelihood of significant effects

TABLE 7 SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES FROM THE PROPOSED PROJECT.

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population	Changes in Water Quality and/or	Stage 2 AA Required
Glenasmole Valley SAC (001209)	No	No	No	None	None	No
Wicklow Mountains SAC (2122)	No	No	No	None	None	No
Red Bog, Kildare SAC (000397)	No	No	No	None	None	No
Slaney River Valley SAC (000781)	No	No	No	None	None	No
Mouds Bog SAC (002331)	No	No	No	None	None	No
Pollardstown Fen SAC (000396)	No	No	No	None	None	No
Rye Water Valley/Carton SAC (001398)	No	No	No	None	None	No
Ballynafagh Lake SAC (001387)	No	No	No	None	None	No
Knocksink Wood SAC (000725)	No	No	No	None	None	No
Ballynafagh Bog SAC (000391)	No	No	No	None	None	No
South Dublin Bay SAC (000210)	No	No	No	None	None	No
Ballyman Glen SAC (000713)	No	No	No	None	None	No
North Dublin Bay SAC (000206)	No	No	No	None	None	No
Carriggower Bog SAC (000716)	No	No	No	None	None	No
River Barrow And River Nore SAC (002162)	No	No	No	None	None	No
Glen of the Downs SAC (000719)	No	No	No	None	None	No
Wicklow Mountains SPA (004040)	No	No	No	None	None	No

Poulaphouca Reservoir SPA (004063)	No	No	No	None	None	No
South Dublin Bay and River Tolka Estuary SPA (004024)	No	No	No	None	None	No
North Bull Island SPA (004006)	No	No	No	None	None	No

3 CONCLUDING STATEMENT

The Proposed Project consisting of the installation of Broadband Network at DA015 Blessington has been assessed taking into account:

- the nature, size and location of the proposed works and possible impacts arising from the installation works.
- the qualifying interests and conservation objectives of the Natura sites.
- the potential for in-combination effects arising from other plans and projects.

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that, on the basis of objective information; the possibility **may be excluded** that the Proposed Project will have a likely significant effect on any of the European sites listed below:

Glenasmole Valley SAC

Wicklow Mountains SAC

Red Bog, Kildare SAC

Slaney River Valley SAC

Mouds Bog SAC

Pollardstown Fen SAC

Rye Water Valley/Carton SAC

Ballynafagh Lake SAC

Knocksink Wood SAC

Ballynafagh Bog SAC

South Dublin Bay SAC,

Ballyman Glen SAC

North Dublin Bay SAC

Carriggower Bog SAC

River Barrow And River Nore SAC

Glen of the Downs SAC

Wicklow Mountains SPA

Poulaphouca Reservoir SPA

South Dublin Bay And River Tolka Estuary SPA

North Bull Island SPA

Thus, it can be concluded on the basis of the results of Stage 1 of the Appropriate Assessment process that there is no requirement to proceed to Stage 2 of said process; and the preparation of a Natura Impact Statement (NIS) is not required.

4 REFERENCES

DEHLG. (2010). Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

Environmental Protection Agency. (2002). Guidelines on information to be contained in Environmental Impact Statements. Environmental Protection Agency, Ireland.

Environmental Protection Agency. (2017). Guidelines on information to be contained in Environmental Impact Assessment Reports (Draft). Environmental Protection Agency, Ireland.

European Commission. (2001). Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities, Luxembourg.

Franklin, A. N. (2002). What is Habitat Fragmentation? Studies in Avian Biology, 20-29.

NBDC. (2019). National Biodiversity Data Centre online mapping [ONLINE] Available at: <http://maps.biodiversityireland.ie/Map.aspx>. [Accessed February 2021].

NPWS (2011a) Conservation Objectives: Slaney River Valley SAC [000781]. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2011b) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2013a) Conservation Objectives: South Dublin Bay SAC [000210]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2013b) Conservation Objectives: North Dublin Bay SAC [000206]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015a) Conservation Objectives: Mouds Bog SAC [002331]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015b) Conservation Objectives: Ballynafagh Bog SAC 000391. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

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

NPWS (2015d) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2017a) Conservation Objectives: Wicklow Mountains SAC [002122]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht.

NPWS (2019a) Conservation Objectives: Red Bog, Kildare SAC [000397]. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2019b) Conservation Objectives: Ballyman Glen SAC [000713]. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2019c) Conservation Objectives: Carriggower Bog SAC [000716]. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2020a) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020b) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020c) Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020d) Conservation objectives for Ballynafagh Lake SAC [001387]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020e) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020f) Conservation Objectives: Glen of the Downs SAC 000719. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2020g) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

NPWS (2020h) Conservation objectives for Poulaphouca Reservoir SPA [004063]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.

Sinnott, T. (2000). Assessment of the Risks to Aquatic Life from the Use of Pressure Treated Wood in Water. New York State Department of Environmental Conservation: Division of Fish, Wildlife and Marine Resources.