

# APPROPRIATE ASSESSMENT SCREENING REPORT

PRESENTED TO

**National Broadband Ireland**



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# 1 INTRODUCTION

## 1.1 Background

Enviroguide Consulting was commissioned by National Broadband Ireland (NBI) to undertake a screening for Appropriate Assessment with respect to the upgrade/installation of broadband services to buildings in the Mount Bolus area. This Appropriate Assessment Screening Report (the "Screening Report") 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 Mount Bolus and the surrounding area, covering an approximate area of 337 km<sup>2</sup>. The purpose of this report is to provide information to assist the relevant competent authority to carry out a screening for Appropriate Assessment. This Screening Report has been prepared on the basis of design data presented in (DA185 LLD01).

## 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 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' (AA) 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 Screening Report 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 AA 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:

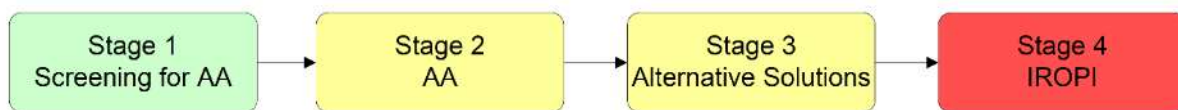
*"6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of 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 AA 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. An NIS 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).
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019).
- *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC Brussels, 28.9.2021 C* (European Commission, 2021); and,
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021*.

### 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 NBI to install/upgrade the broadband services in the area of Mount Bolus, (the project) is not directly connected with or necessary to the management of European sites in the area or elsewhere.

## **2.4 Description of the 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 Deployment 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 due to a typical depth of 1.5 – 1.7m below ground level.
- The hole is dug using a utility truck mounted auger as shown in **FIGURE 2** and **FIGURE 3**.
- 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 (maximum 115kgs per pole).
- 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. (A) UTILITY TRUCK MOUNTED AUGER EXCAVATING HOLE FOR UTILITY POLE, (B) AND (C) NEWLY INSTALLED UTILITY POLES.**

- Installation of new underground chambers and fibre ducts;
  - 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 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).
  - All excavation activities will be undertaken in accordance with the project specific risk assessment and method statement.
  - Once the infrastructure has been installed the open excavation will be backfilled with the previously excavated spoil and the ground made good.
  - The quantity of excavated material is dependent on the length and depth of the required excavations.
  - All surplus material is placed into suitable containers and removed from site by truck for compliant waste management.



**FIGURE 4. NEWLY INSTALLED CHAMBER.**

All new and existing infrastructure within the DA is outlined in **Error! Not a valid bookmark self-reference..**

### **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 standards 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:
  - Storage of poles in bunded area.
  - Waste must be appropriately stored and suitably bunded to prevent leakage.
  - There must be unobstructed access for loading and unloading as well as in case of emergencies.
  - Waste should only be handled by competent employees.
  - 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) (outlined below).

#### 2.4.4 Routine Operational Measures

The environmental commitments of the Proposed Project will be managed through the 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 installation 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 Mount Bolus and the surrounding area (DA185). The area under assessment is approximately 337 km<sup>2</sup> of rural environment. It is expected that the rollout of the infrastructure will commence 30/04/2024 with a completion date of 18/09/2024.

**Error! Not a valid bookmark self-reference.** identifies the existing telecoms infrastructure in the project area and the new additional infrastructure to be installed as part of the Proposed Project. **TABLE 2** identifies the installation location type and total length of underground ducting to be installed in each location type. The majority of the additional network equipment will be installed in the roadside verges, or under existing carriageways. New overhead cables will be slung between newly installed poles. Underground ducting will follow the existing road



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

**TABLE 1. EXISTING AND PROPOSED ADDITIONAL TELECOMS INFRASTRUCTURE**

Infrastructure description	Existing Infrastructure	Additional Proposed Infrastructure
Above ground / overhead cable	278 km	434 km
Underground cable and ducting	41 km	21.1 km
Network Utility Poles	5927	988
Underground chambers	361	101
Co-Locations/Cabinets	Yes	0

**TABLE 2 NEW UNDERGROUND DUCTING INSTALLATION LOCATION TYPE AND LENGTH**

Type of install location	Total Length km
Installation in roadside verge	19.1
Installation under existing footway	1.80
Installation under existing carriageway	0.2

#### **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 a mainly rural. The Project Boundary also contains the town of Mount Bolus.

A number of lake waterbodies, river waterbodies and groundwater bodies, are located within the project area and environs, which are shown in Figure 5.

*Clonaslee Eskers and Derry Bog SAC (000859), Slieve Bloom Mountains SAC (000412), River Barrow and River Nore SAC (0002162), and Slieve Bloom Mountains SPA (004160),* are located within the Project Boundary at various points, see Figure 6 below for details.

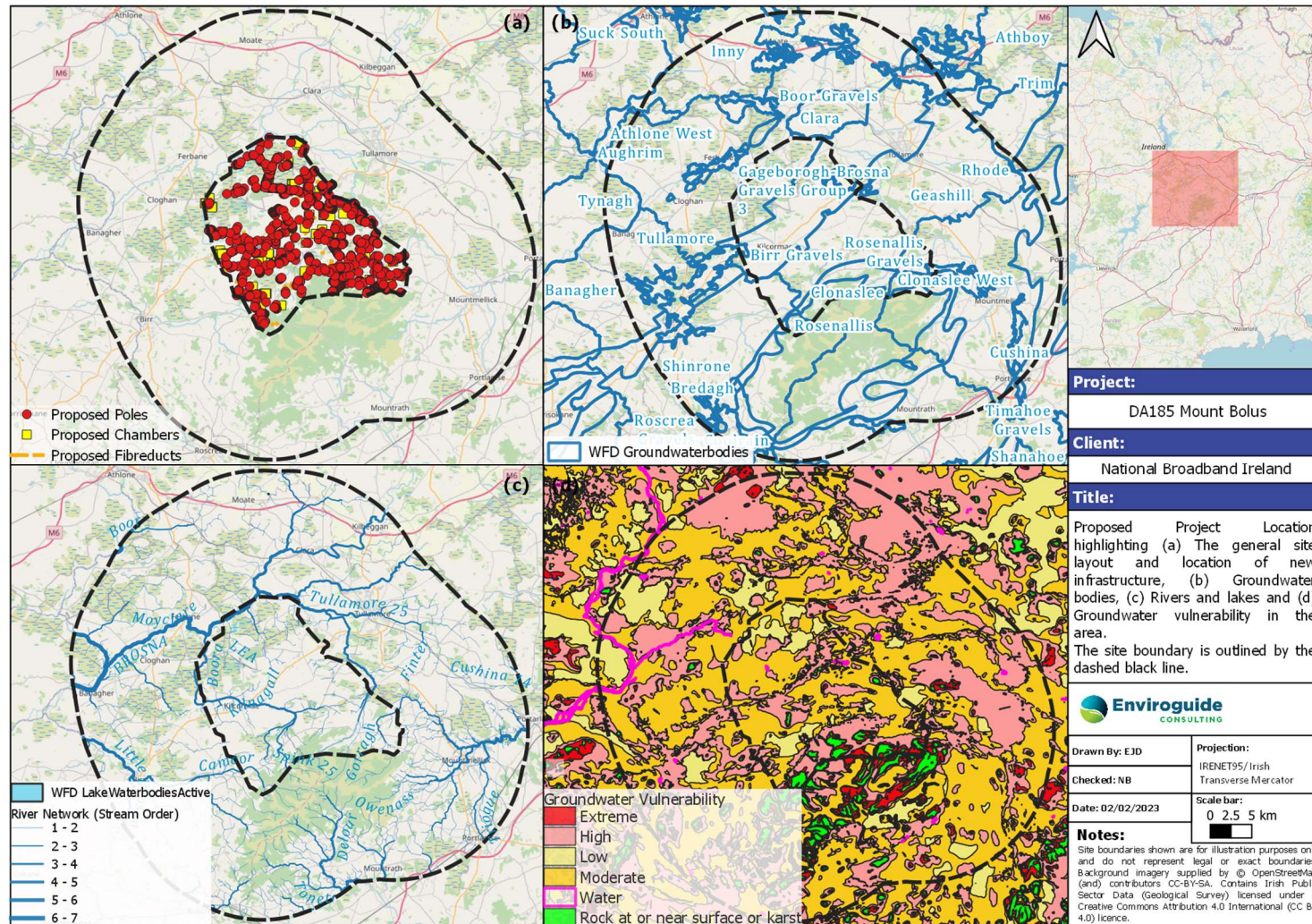


FIGURE 5. PROPOSED PROJECT LOCATION SHOWING THE LOCATION OF NEW INFRASTRUCTURE AND VARIOUS ENVIRONMENTAL FEATURES

## 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 2023 to reflect LLD01, 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/flood-plans/>).
- 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, 2022), the following terms are defined when quantifying duration:

**TABLE 3. DEFINITION OF DURATIONS (EPA, 2022).**

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



Description of Duration	Corresponding Time Frame
<b>Reversible Effects</b>	Effects that can be undone, for example through remediation or restoration.
<b>Frequency of Effects</b>	Describe how often the effect will occur. (Once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).

The criteria for confidence levels of the predicted likely impacts are given below in **Error! Reference source not found.** The impact significance criteria follow EPA guidance (EPA, 2022).

**TABLE 4. DEFINITION OF DURATIONS (EPA, 2022).**

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

### 2.5.3 Identification of Relevant European sites

In order to identify the European sites that potentially lie within the Zone of Influence (ZOI) of the Proposed Development, a Source-Path-Receptor (S-P-R) method was adopted, as described in 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021), a practice note produced by the Office of the Planning Regulator, Dublin. This note was published to provide guidance on screening for AA during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Screening Reports such as this.

The guidance document published by the Department of Housing, Planning and Local Government (then DEHLG) 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' (2009) recommends an arbitrary distance of 15km as the precautionary ZOI for a plan or project being assessed for likely significant effects on European sites, stating however that this should be evaluated on a case-by-case basis.

As such, the 15km ZOI is used in this report as an initial starting point for collating European sites for AA screening.

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

- Use of up-to-date Geographic Information System (GIS) spatial datasets for European designated sites and water catchments – downloaded from the NPWS website ([www.npws.ie](http://www.npws.ie)) and the EPA website ([www.epa.ie](http://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 ZOI of the Proposed Project (Figure 6 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 European sites within the precautionary ZOI with potential for pathways between European sites and the Proposed Development Site. Where significant effects are ruled out, a rationale is provided. Pathways considered included:
  - a. Direct pathways (e.g., proximity (i.e., location within the European site), water bodies, air (for both air emissions and noise impacts).
  - b. Indirect pathways (e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species).
- The site synopses and conservation objectives of these sites, as per the NPWS website ([www.npws.ie](http://www.npws.ie)), were consulted and reviewed at the time of preparing this report.

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

#### **2.5.4 Identification of Infrastructure Installation activities within/adjacent to European sites**

To assess whether installation activities were proposed adjacent to European sites, proposed installation activities within 30m or less of European sites were assessed.

To identify these items of infrastructure, the following process was undertaken:

- Using a GIS the locations of all new proposed items of infrastructure were overlayed 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 activities 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 30 metres 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 activities 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

19 SACs and 7 SPAs are located within the precautionary ZOI of the Proposed Project site, as follows: *Clonaslee Eskers and Derry Bog SAC (000859)*, *Slieve Bloom Mountains SAC (000412)*, *River Barrow And River Nore SAC (0002162)*, *Charleville Wood SAC (000571)*, *Clara Bog SAC (000572)*, *Ferbane Bog SAC (000575)*, *Moyclare Bog SAC (000581)*, *Island Fen SAC (002236)*, *River Shannon Callows SAC (000216)*, *Lisduff Fen SAC (002147)*, *Ridge Road, SW of Rapemills SAC (000919)*, *All Saints Bog and Esker SAC (000566)*, *Mountmellick SAC (002141)*, *Pilgrim's Road Esker SAC (001776)*, *Coolrain Bog SAC (002332)*, *Fin Lough (Offaly) SAC (000576)*, *Mongan Bog SAC (000580)*, *Sharavogue Bog SAC (000585)*, *Split Hills and Long Hill Esker SAC (001831)*, *Slieve Bloom Mountains SPA (004160)*, *Middle Shannon Callows SPA (004096)*, *Dovegrove Callows SPA (004137)*, *All Saints Bog SPA (004103)*, *River Little Brosna Callows SPA (004086)*, *Mongan Bog SPA (004017)*, and *River Nore SPA (004233)*.

Installation activity within European sites will be limited to a total of 78 new items of infrastructure, namely: 69 poles and 9 lengths of fibreduct, which will be installed exclusively within *Clonaslee Eskers and Derry Bog SAC (000859)*, *Slieve Bloom Mountains SAC (000412)*, and *Slieve Bloom Mountains SPA (004160)* (Figure 7).

A total of 53 items of infrastructure (26 poles, 2 chambers and 25 lengths of ducting) will be installed within 30m of European sites, as part of the project activities (Figure 8).

Within the Project Boundary, 84 items of infrastructure (51 poles, 2 chambers, and 31 lengths of ducting) will be placed within 30m of watercourses which may ultimately flow into European sites within the precautionary ZOI of the Proposed Project.

A desk study was sufficient for the above listed infrastructure as the proposed location of the infrastructure was located adjacent to the existing public/private road network and could be readily assessed using Google Street View, aerial imagery and up-to-date GIS data available from the NPWS<sup>1</sup>. The habitat at these roadside locations typically consisted of made ground, grassy verges and/or hedging and was not a Qualifying Interest (QI) habitat for any European site or important habitat for any QI and/or Species of Conservation Interest (SCI) species.

The results of the assessment methodology detailed in section 2.5.5 of this report regarding installation work within European sites are presented in Table 8..

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



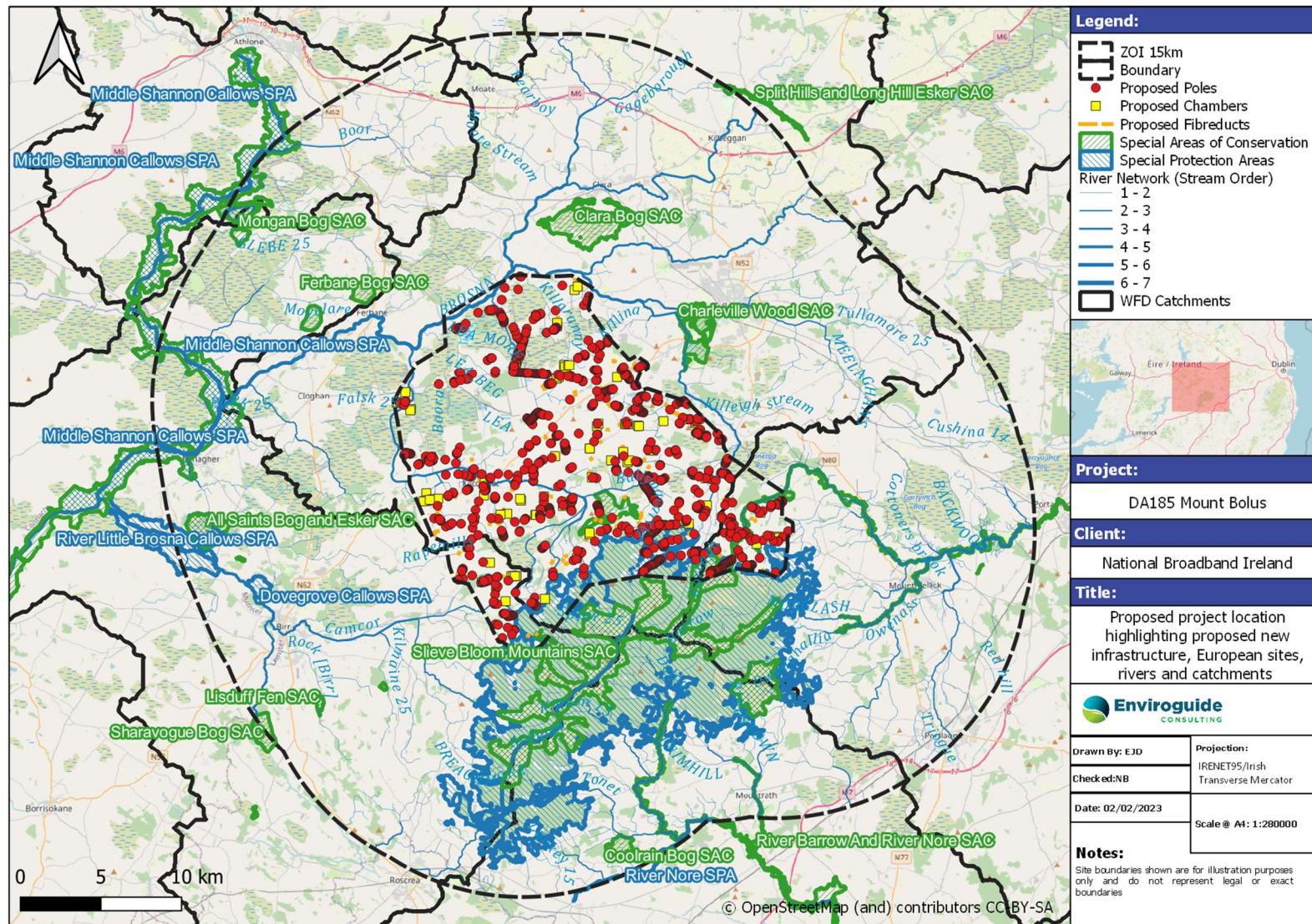


FIGURE 6 PROPOSED PROJECT LOCATION



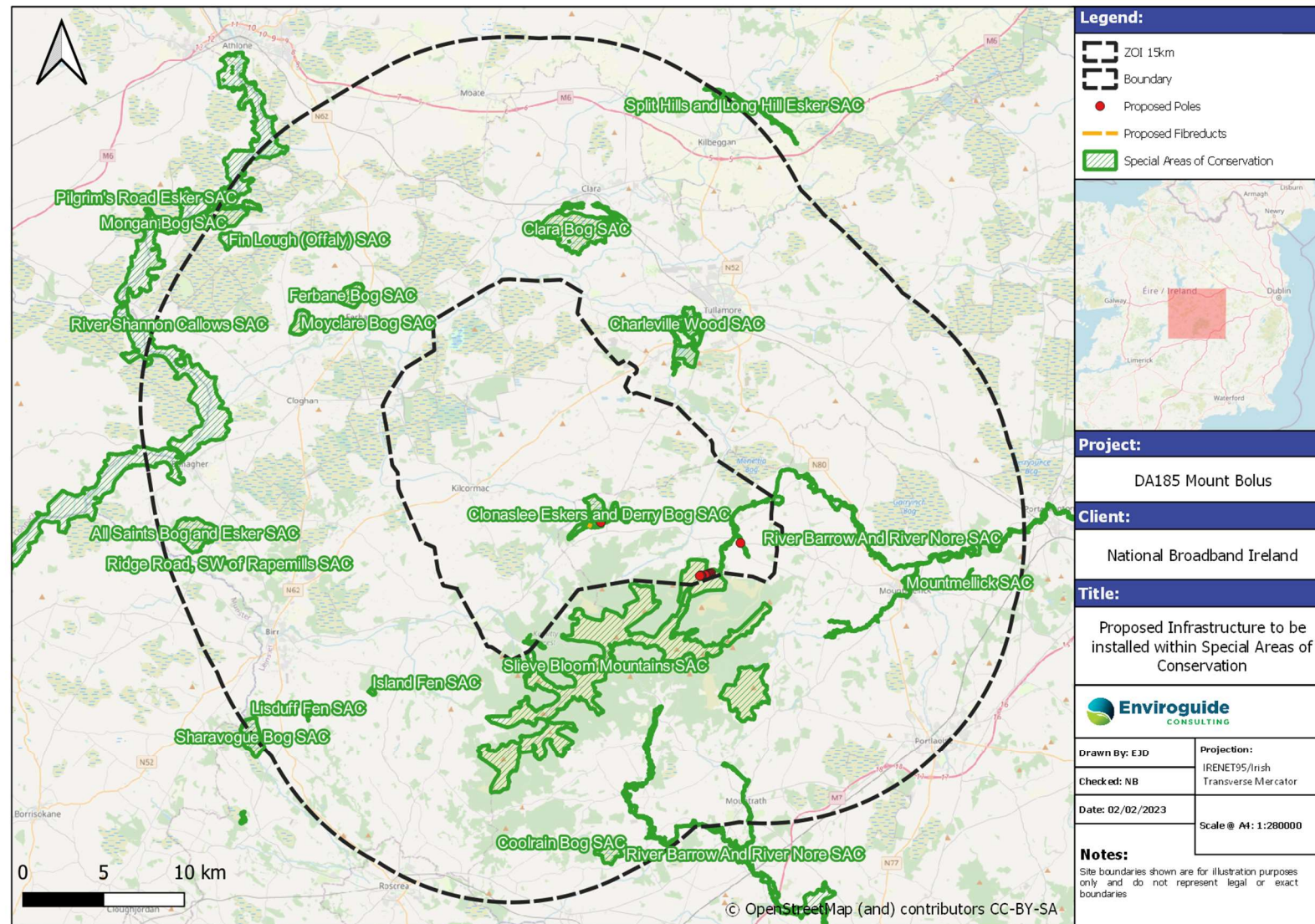


FIGURE 7 NEW INFRASTRUCTURE FEATURES WITHIN EUROPEAN SITES



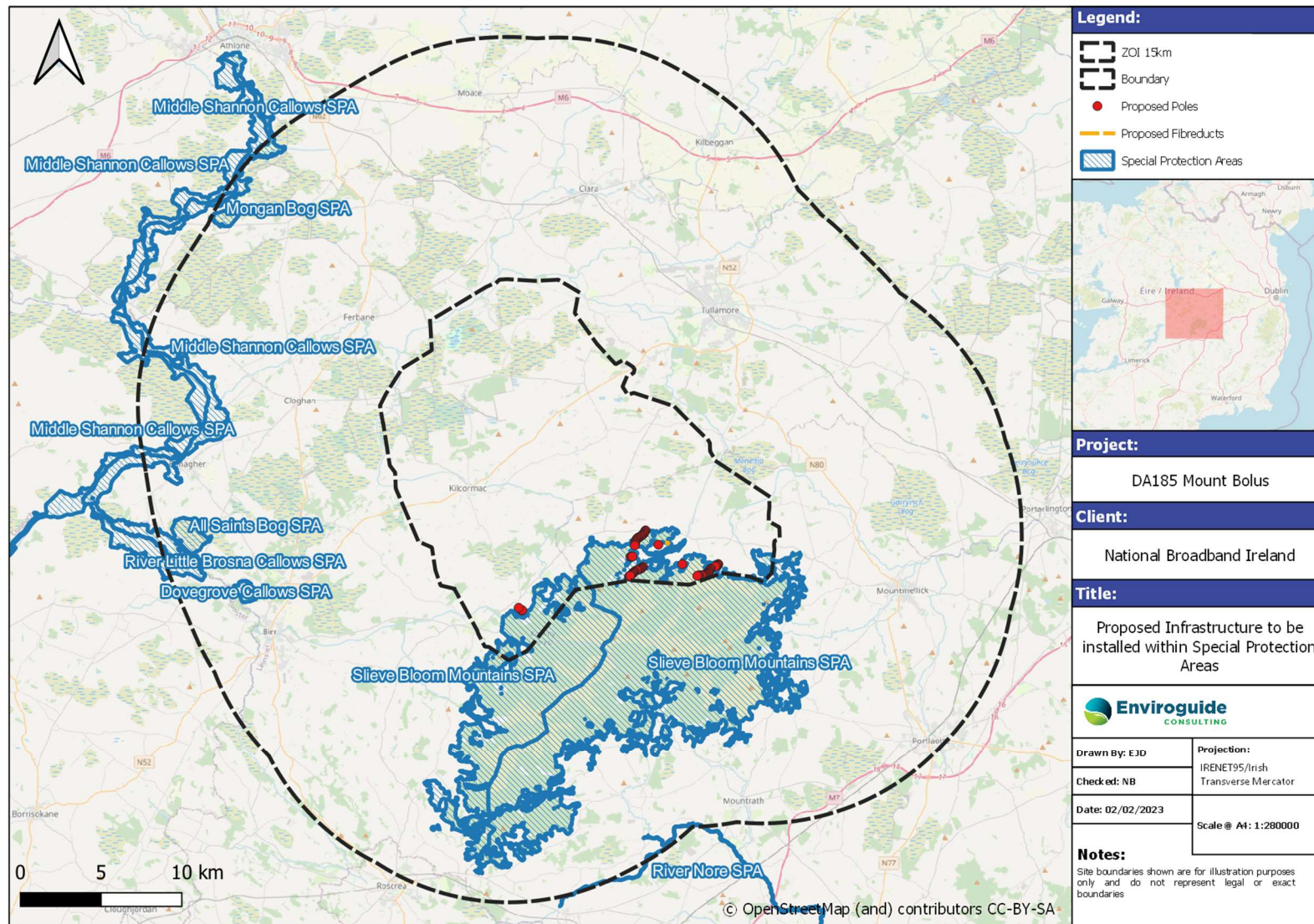


FIGURE 8 NEW INFRASTRUCTURE FEATURES WITHIN EUROPEAN SITES

**TABLE 5 EUROPEAN SITES WITHIN THE PRECAUTIONARY ZONE OF INFLUENCE OF THE PROPOSED PROJECT SITE, THE DISTANCE BETWEEN EACH EUROPEAN SITE AND THE PROJECT BOUNDARY AND THE POTENTIAL PATHWAYS BETWEEN THEM, AND POTENTIAL DIRECT AND INDIRECT EFFECTS ON EACH EUROPEAN SITE AS A RESULT OF THE PROPOSED PROJECT. WHERE NO SIGNIFICANT EFFECTS ARE ENVISAGED, A RATIONALE IS PROVIDED.**

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
<b>Special Areas of Conservation (SAC)</b>						
Rogerstown Estuary SAC (000208) <a href="http://www.npws.ie/protected-sites/sac/000208">http://www.npws.ie/protected-sites/sac/000208</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Estuaries [1130]</li> <li>- Mudflats and sand-flats not covered by seawater at low tide [1140]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> </ul>	Within Project Route (See Figure 6)	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</li> </ul>					
<p>Malahide Estuary SAC (000205) <a href="http://www.npws.ie/protected-sites/sac/000205">http://www.npws.ie/protected-sites/sac/000205</a></p>	<p><b>Conservation Objectives Version 1.0 (NPWS, 2013)</b></p> <ul style="list-style-type: none"> <li>- Mudflats and sand-flats not covered by seawater at low tide [1140]</li> <li>- Salicornia and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> <li>- Fixed coastal dunes with herbaceous</li> </ul>	<p>Within Project Route (See Figure 6)</p>	<p>Land/Hydrological</p>	<p>Loss/alteration of habitat along project route, which passes within SAC due to the installation of infrastructure.</p>	<p>Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water bodies which flow into SAC.</p>	<p>N/A</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	vegetation (grey dunes) [2130]					
Rockabill to Dalkey Island SAC (003000) <a href="http://www.npws.ie/protected-sites/sac/003000">http://www.npws.ie/protected-sites/sac/003000</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Reefs [1170]</li> <li>- <i>Phocoena phocoena</i> (Harbour Porpoise) [1351]</li> </ul>	Within Project Route (See Figure 6)	Hydrological	None/None envisaged	Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water bodies which flow into SAC.	N/A
Lambay Island SAC (000204) <a href="http://www.npws.ie/protected-sites/sac/000204">http://www.npws.ie/protected-sites/sac/000204</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Reefs [1170]</li> <li>- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>- <i>Halichoerus grypus</i> (Grey Seal) [1364]</li> <li>- <i>Phoca vitulina</i> (Harbour Seal) [1365]</li> </ul>	Within Project Route (See Figure 6)	Land/Air/Hydrological	Loss/alteration of habitat along project route, which passes within SAC due to the installation of infrastructure.  Potential disturbance to QI species, particularly	Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water bodies which flow into SAC.	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
				during the installation phase.		
North Dublin Bay SAC (000206) <a href="http://www.npws.ie/protected-sites/sac/000206">http://www.npws.ie/protected-sites/sac/000206</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Mudflats and sand-flats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>- Embryonic shifting dunes [2110]</li> </ul>	Within Project Route (See Figure 6)	Land/Hydrological	Loss/alteration of habitat along project route, which passes within SAC due to the installation of infrastructure.	Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water bodies which flow into SAC.	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> <li>- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</li> <li>- Humid dune slacks [2190]</li> <li>- <i>Petalophyllum ralfsii</i> (Petalwort) [1395]</li> </ul>					
South Dublin Bay SAC (000210) <a href="http://www.npws.ie/protected-sites/sac/000210">http://www.npws.ie/protected-sites/sac/000210</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Mudflats and sand-flats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- Salicornia and other annuals colonising mud and sand [1310]</li> <li>- Embryonic shifting dunes [2110]</li> </ul>	Within Project Route (See Figure 6)	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to lack of evident land/air or hydrological links between proposed activities and this SAC.



Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
Baldoyle Bay SAC (000199) <a href="http://www.npws.ie/protected-sites/sac/000199">http://www.npws.ie/protected-sites/sac/000199</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2012)</b> <ul style="list-style-type: none"> <li>- Mudflats and sand-flats not covered by seawater at low tide [1140]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> </ul>	Within Project Route (See Figure 6)	Hydrological	None/None envisaged	Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water bodies which flow into SAC.	N/A
Howth Head SAC (000202) <a href="http://www.npws.ie/protected-sites/sac/000202">http://www.npws.ie/protected-sites/sac/000202</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2016)</b> <ul style="list-style-type: none"> <li>- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>- European dry heaths [4030]</li> </ul>	Within Project Route (See Figure 6)	Land/Hydrological	Loss/alteration of habitat along project route, which passes within SAC due to the installation of infrastructure.	Deterioration of water quality due to potential sediment/pollutants entering SAC due to the installation of infrastructure within 30m of water	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
					bodies which flow into SAC.	
Ireland's Eye SAC (002193) <a href="http://www.npws.ie/protected-sites/sac/002193">http://www.npws.ie/protected-sites/sac/002193</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2017)</b> <ul style="list-style-type: none"> <li>- Perennial vegetation of stony banks [1220]</li> <li>- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> </ul>	0.25 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.
Wicklow Mountains SAC (002122) <a href="http://www.npws.ie/protected-sites/sac/002122">http://www.npws.ie/protected-sites/sac/002122</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2017)</b> <ul style="list-style-type: none"> <li>- Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</li> </ul>	8.48 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Natural dystrophic lakes and ponds [3160]</li> <li>- Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</li> <li>- European dry heaths [4030]</li> <li>- Alpine and Boreal heaths [4060]</li> <li>- Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</li> <li>- Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</li> <li>- Blanket bogs (* if active bog) [7130]</li> <li>- Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</li> <li>- Calcareous rocky slopes with</li> </ul>					this SAC. Furthermore, there are no hydrological links to SAC.

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>chasmophytic vegetation [8210]</li> <li>- Siliceous rocky slopes with chasmophytic vegetation [8220]</li> <li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>- <i>Lutra lutra</i> (Otter) [1355]</li> </ul>					
Glenasmole Valley SAC (001209) <a href="http://www.npws.ie/protected-sites/sac/001209">http://www.npws.ie/protected-sites/sac/001209</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2021)</b> <ul style="list-style-type: none"> <li>- Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]</li> <li>- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caeruleae</i>) [6410]</li> </ul>	9.54 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> </ul>					
Knocksink Wood SAC (000725) <a href="http://www.npws.ie/protected-sites/sac/000725">http://www.npws.ie/protected-sites/sac/000725</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2021)</b> <ul style="list-style-type: none"> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> <li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>- Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> </ul>	10.68 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
Ballyman Glen SAC (000713) <a href="http://www.npws.ie/protected-sites/sac/000713">http://www.npws.ie/protected-sites/sac/000713</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2019)</b> <ul style="list-style-type: none"> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> <li>- Alkaline fens [7230]</li> </ul>	11.70 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.
Rye Water Valley/Cartron SAC (001398) <a href="http://www.npws.ie/protected-sites/sac/001398">http://www.npws.ie/protected-sites/sac/001398</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2021)</b> <ul style="list-style-type: none"> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> <li>- <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014]</li> <li>- <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</li> </ul>	11.84 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
						hydrological links to SAC.
Bray Head SAC (000714) <a href="http://www.npws.ie/protected-sites/sac/000714">http://www.npws.ie/protected-sites/sac/000714</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2017)</b> <ul style="list-style-type: none"> <li>- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>- European dry heaths [4030]</li> </ul>	14.83 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SAC. Furthermore, there are no hydrological links to SAC.
<b>Special Protection Areas (SPA)</b>						

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
North Bull Island SPA (004006) <a href="http://www.npws.ie/protected-sites/spa/004006">http://www.npws.ie/protected-sites/spa/004006</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2015)</b> <ul style="list-style-type: none"> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>- Teal (<i>Anas crecca</i>) [A052]</li> <li>- Pintail (<i>Anas acuta</i>) [A054]</li> <li>- Shoveler (<i>Anas clypeata</i>) [A056]</li> <li>- Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>- Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>- Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>- Knot (<i>Calidris canutus</i>) [A143]</li> <li>- Sanderling (<i>Calidris alba</i>) [A144]</li> <li>- Dunlin (<i>Calidris alpina</i>) [A149]</li> </ul>	Within Project Route (See Figure 6)	Land/Air/Hydrological	<p>Loss/alteration of habitat along project route, which passes within SPA due to the installation of infrastructure.</p> <p>Potential disturbance to SCI species, particularly during the installation phase.</p>	Deterioration of water quality due to potential sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water bodies which flow into SPA.	N/A



Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>- Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>- Curlew (<i>Numenius arquata</i>) [A160]</li> <li>- Redshank (<i>Tringa totanus</i>) [A162]</li> <li>- Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>- Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>					
Rogerstown Estuary SPA (004015) <a href="http://www.npws.ie/protected-sites/spa/004015">http://www.npws.ie/protected-sites/spa/004015</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Greylag Goose (<i>Anser anser</i>) [A043]</li> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>- Shoveler (<i>Anas clypeata</i>) [A056]</li> </ul>	Within Project Route (See Figure 6)	Air/Hydrological	Potential disturbance to SCI species, particularly during the installation phase.	Deterioration of water quality due to potential sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water bodies which flow into SPA.	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>- Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>- Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>- Knot (<i>Calidris canutus</i>) [A143]</li> <li>- Dunlin (<i>Calidris alpina</i>) [A149]</li> <li>- Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>- Redshank (<i>Tringa totanus</i>) [A162]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>					
Baldoyle Bay SPA (004016) <a href="http://www.npws.ie/protected-sites/spa/004016">http://www.npws.ie/protected-sites/spa/004016</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Shelduck (<i>Tadorna tadorna</i>) [A048]</li> </ul>	Within Project Route (See Figure 6)	Hydrological	None/None envisaged	Deterioration of water quality due to potential sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>- Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>- Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>- Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>				bodies which flow into SPA.	
South Dublin Bay and River Tolka Estuary SPA (004024) <a href="http://www.npws.ie/protected-sites/spa/004024">http://www.npws.ie/protected-sites/spa/004024</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2015)</b> <ul style="list-style-type: none"> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>- Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>- Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> </ul>	Within Project Route (See Figure 6)	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SPA. Furthermore, there are no

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Knot (<i>Calidris canutus</i>) [A143]</li> <li>- Sanderling (<i>Calidris alba</i>) [A144]</li> <li>- Dunlin (<i>Calidris alpina</i>) [A149]</li> <li>- Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>- Redshank (<i>Tringa totanus</i>) [A162]</li> <li>- Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</li> <li>- Roseate Tern (<i>Sterna dougallii</i>) [A192]</li> <li>- Common Tern (<i>Sterna hirundo</i>) [A193]</li> <li>- Arctic Tern (<i>Sterna paradisaea</i>) [A194]</li> <li>- Wetland and Water-birds [A999]</li> </ul>					hydrological links to SPA.
Malahide Estuary SPA (004025) <a href="http://www.npws.ie/protected-sites/spa/004025">http://www.npws.ie/protected-sites/spa/004025</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b>	Within Project Route	Land/Air/Hydrological	Loss/alteration of habitat along project route,	Deterioration of water quality due to potential	N/A

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</li> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>- Pintail (<i>Anas acuta</i>) [A054]</li> <li>- Goldeneye (<i>Bucephala clangula</i>) [A067]</li> <li>- Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</li> <li>- Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>- Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>- Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>- Knot (<i>Calidris canutus</i>) [A143]</li> <li>- Dunlin (<i>Calidris alpina</i>) [A149]</li> </ul>	(See Figure 6)		<p>which passes within SPA due to the installation of infrastructure.</p> <p>Potential disturbance to SCI species, particularly during the installation phase.</p>	sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water bodies which flow into SPA.	



Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>- Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>- Redshank (<i>Tringa totanus</i>) [A162]</li> <li>- Wetland and Water-birds [A999]</li> </ul>					
<p>Lambay Island SPA (004069)</p> <p><a href="http://www.npws.ie/protected-sites/spa/004069">http://www.npws.ie/protected-sites/spa/004069</a></p>	<p><b>Conservation Objectives Version 1.0 (NPWS, 2022)</b></p> <ul style="list-style-type: none"> <li>- Fulmar (<i>Fulmarus glacialis</i>) [A009]</li> <li>- Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>- Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>- Greylag Goose (<i>Anser anser</i>) [A043]</li> <li>- Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]</li> <li>- Herring Gull (<i>Larus argentatus</i>) [A184]</li> </ul>	<p>Within Project Route (See Figure 6)</p>	<p>Land/Air/Hydrological</p>	<p>Loss/alteration of habitat along project route, which passes within SPA due to the installation of infrastructure.</p> <p>Potential disturbance to SCI species, particularly during the installation phase.</p>	<p>Deterioration of water quality due to potential sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water bodies which flow into SPA.</p>	<p>N/A</p>

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>- Guillemot (<i>Uria aalge</i>) [A199]</li> <li>- Razorbill (<i>Alca torda</i>) [A200]</li> <li>- Puffin (<i>Fratercula arctica</i>) [A204]</li> </ul>					
Howth Head Coast SPA (004113) <a href="http://www.npws.ie/protected-sites/spa/004113">http://www.npws.ie/protected-sites/spa/004113</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2022)</b> <ul style="list-style-type: none"> <li>- Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> </ul>	Within Project Route (See Figure 6)	Air/Hydrological	Potential disturbance to SCI species, particularly during the installation phase.	Deterioration of water quality due to potential sediment/pollutants entering SPA due to the installation of infrastructure within 30m of water bodies which flow into SPA.	N/A
Ireland's Eye SPA (004117) <a href="http://www.npws.ie/protected-sites/spa/004117">http://www.npws.ie/protected-sites/spa/004117</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2022)</b> <ul style="list-style-type: none"> <li>- Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>- Herring Gull (<i>Larus argentatus</i>) [A184]</li> </ul>	Within Project Route (See Figure 6)	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>- Guillemot (<i>Uria aalge</i>) [A199]</li> <li>- Razorbill (<i>Alca torda</i>) [A200]</li> </ul>					activities and this SPA. Furthermore, there are no hydrological links to SPA.
<p>Skerries Islands SPA (004122)</p> <p><a href="http://www.npws.ie/protected-sites/spa/004122">http://www.npws.ie/protected-sites/spa/004122</a></p>	<p><b>Conservation Objectives Version 1.0 (NPWS, 2022)</b></p> <ul style="list-style-type: none"> <li>- Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>- Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>- Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>- Purple Sandpiper (<i>Calidris maritima</i>) [A148]</li> <li>- Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>- Herring Gull (<i>Larus argentatus</i>) [A184]</li> </ul>	6.69 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SPA. Furthermore, there are no hydrological links to SPA.

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
Rockabill SPA (004014) <a href="http://www.npws.ie/protected-sites/spa/004014">http://www.npws.ie/protected-sites/spa/004014</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2013)</b> <ul style="list-style-type: none"> <li>- Purple Sandpiper (<i>Calidris maritima</i>) [A148]</li> <li>- Roseate Tern (<i>Sterna dougallii</i>) [A192]</li> <li>- Common Tern (<i>Sterna hirundo</i>) [A193]</li> <li>- Arctic Tern (<i>Sterna paradisaea</i>) [A194]</li> </ul>	6.81 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SPA. Furthermore, there are no hydrological links to SPA.
Dalkey Islands SPA (004172) <a href="http://www.npws.ie/protected-sites/spa/004172">http://www.npws.ie/protected-sites/spa/004172</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2022)</b> <ul style="list-style-type: none"> <li>- Roseate Tern (<i>Sterna dougallii</i>) [A192]</li> <li>- Common Tern (<i>Sterna hirundo</i>) [A193]</li> <li>- Arctic Tern (<i>Sterna paradisaea</i>) [A194]</li> </ul>	7.26 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SPA. Furthermore, there are no

Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
						hydrological links to SPA.
Wicklow Mountains SPA (004040) <a href="http://www.npws.ie/protected-sites/spa/004040">http://www.npws.ie/protected-sites/spa/004040</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2022)</b> <ul style="list-style-type: none"> <li>- Merlin (<i>Falco columbarius</i>) [A098]</li> <li>- Peregrine (<i>Falco peregrinus</i>) [A103]</li> </ul>	8.77 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between proposed activities and this SPA. Furthermore, there are no hydrological links to SPA.
River Nanny Estuary and Shore SPA (004158) <a href="http://www.npws.ie/protected-sites/spa/004158">http://www.npws.ie/protected-sites/spa/004158</a>	<b>Conservation Objectives Version 1.0 (NPWS, 2012)</b> <ul style="list-style-type: none"> <li>- Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> </ul>	10.27 km	None	None/None envisaged	None/None envisaged	No potential for direct or indirect effects due to significant distance between



Site Name & Code	Qualifying Interests	Distance to Project Route	Pathway	Potential Direct Effects	Potential Indirect Effects	Rationale for exclusion
	<ul style="list-style-type: none"> <li>- Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>- Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>- Knot (<i>Calidris canutus</i>) [A143]</li> <li>- Sanderling (<i>Calidris alba</i>) [A144]</li> <li>- Herring Gull (<i>Larus argentatus</i>) [A184]</li> <li>- Wetland and Water-birds [A999]</li> </ul>					proposed activities and this SPA. Furthermore, there are no hydrological links to SPA.

## 2.7 Brief Description of European sites

All 26 of the European sites within the precautionary ZOI of the Project were assessed for potential direct and indirect impacts. A total 20 of the 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 minor nature of the proposed installation activities and the absence of pathways (e.g., hydrological, land, air) between the Project and the European sites.

A land, air or hydrological pathway has been established between installation activities as part of the project (DA185) and the remaining 6 European sites. A brief summary of each site is provided below, extracted from the NPWS Site Synopses available from the NPWS. QI and/or SCI species for each of the remaining sites are listed in Table 6.

### 2.7.1 Clonaslee Eskers and Derry Bog SAC (000859)

*Located approximately 5 km west of the town of Clonaslee, and largely in Co. Laois, this site consists of a series of morainic hills and esker ridges which are the legacy of the last period of glaciation. To the north-west, the Derry Hills are two isolated hills situated in a bog, which forms part of the site. The main esker ridge runs along the southern part of the site.*

*Two plant species protected under the Flora (Protection) Order, 2015, occur within the site. Wood Bitter-vetch (*Vicia orobus*) occurs in quantity among oak/birch scrub on the Derry Hills. This species has declined due to land reclamation and has only been seen at one other location since 1970. Basil Thyme (*Acinos arvensis*) occurs in a disused gravel pit and has been seen at only three other sites since 1970. This species favours open gravel and has declined due to the agricultural use of herbicides. Blue Fleabane (*Erigeron acer*) had been recorded with Basil Thyme at this site. This species is rare and threatened in Ireland and is listed in the Red Data Book as a species confined mostly to open gravel habitats in central and south-eastern Ireland.*

*This site is of conservation importance for the presence of alkaline fen vegetation, with petrifying springs, and is considered one of the best sites in the south-east region for this habitat. Also of interest is the extremely unusual assemblage of plants associated with the esker ridges, which includes three rare plants, two of which are legally protected in Ireland. Of further conservation importance is the presence of the rare snail *Vertigo geyeri*.*

### 2.7.2 Slieve Bloom Mountains SAC (000412)

*The Slieve Bloom Mountains lie on the Offaly-Laois border, starting about 8 km north-east of Roscrea and running about 24 km north-east, towards Clonaslee. The mountains are of Old Red Sandstone, flanked by Silurian rocks. The site extends from approximately 180 m to 529 m O.D.*

*The uplands at this site provide excellent habitat for Peregrine, a species listed on Annex I of the E.U. Birds Directive. Breeding pairs occur here.*

*Blanket bogs are an increasingly rare habitat in Europe, and in Ireland are continually under threat. The Slieve Bloom Mountains are an important link in the east-to-west gradient of bogs in Ireland and are floristically linked to the midland raised bogs north of the site. The intactness of the blanket bog here is remarkable and is echoed in few other areas in Ireland, making this*

*site of unique conservation value. Also of conservation importance is the presence of wet heath and an example of alluvial forest.*

### **2.7.3 River Barrow And River Nore SAC**

*This site consists of the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains, and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The site passes through eight counties – Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. Major towns along the edge of the site include Mountmellick, Portarlinton, Monasterevin, Stradbally, Athy, Carlow, Leighlinbridge, Graiguenamanagh, New Ross, Inistioge, Thomastown, Callan, Bennettsbridge, Kilkenny and Durrow. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers of the Barrow, and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King’s Rivers on the Nore.*

*Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains before passing through a band of Carboniferous shales and sandstones. The Nore, for a large part of its course, traverses limestone plains and then Old Red Sandstone for a short stretch below Thomastown. Before joining the Barrow it runs over intrusive rocks poor in silica. The upper reaches of the Barrow also run through limestone. The middle reaches and many of the eastern tributaries, sourced in the Blackstairs Mountains, run through Leinster Granite. The southern end, like the Nore runs over intrusive rocks poor in silica. Waterford Harbour is a deep valley excavated by glacial floodwaters when the sea level was lower than today. The coast shelves quite rapidly along much of the shore.*

*Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive. Furthermore it is of high conservation value for the populations of bird species that use it. The occurrence of several Red Data Book plant species including three rare plants in the salt meadows and the population of the hard water form of the Freshwater Pearl Mussel, which is limited to a 10 km stretch of the Nore, add further interest to this site.*

### **2.7.4 Charleville Wood SAC**

*Charleville Wood is a large woodland surrounded by estate parkland and agricultural grassland located about 3 km south-west of Tullamore in Co. Offaly. The site, which is underlain by deep glacial deposits, includes a small lake with a wooded island, and a stream runs along the western perimeter. The woodland is one of very few ancient woodlands remaining in Ireland, with some parts undisturbed for at least 200 years.*

*Charleville Wood is one of the most important ancient woodland sites in Ireland. The woodland has a varied age structure and is relatively intact with areas of both closed and open canopy. The understorey and ground layers are also well-represented. Alluvial forest is a priority habitat listed on Annex I of the E.U. Habitats Directive, while the rare snail species, *Vertigo moulinsiana*, is listed on Annex II of this Directive. The wetland areas, with their associated bird populations, rare insect and Myxomycete species, contribute further to the conservation significance of the site.*

### 2.7.5 Slieve Bloom Mountains SPA

*The Slieve Bloom Mountains SPA is situated on the border between Counties Offaly and Laois, and runs along a north-east/south-west aligned ridge for approximately 25 km. Much of the site is over 200 m in altitude, rising to a maximum height of 527 m at Arderin. The mountains are of Old Red Sandstone, flanked by Silurian rocks. Several important rivers rise within the site, including the Barrow, Delour and Silver.*

*The site has a near continuous ridge of mountain blanket bog, with wet and dry heaths also well represented. Species present in these habitats include Ling Heather (*Calluna vulgaris*), Crowberry (*Empetrum nigrum*), Bilberry (*Vaccinium myrtillus*), Cottongrasses (*Eriophorum* spp.), Deergrass (*Scirpus cespitosus*) and Bog Asphodel (*Narthecium ossifragum*). Much of the slopes are afforested, and overall coniferous plantations account for c. 60% of the site. The forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. The principal tree species present are Sitka Spruce (*Picea sitchensis*) and Lodgepole Pine (*Pinus contorta*). The remainder of the site is mostly rough grassland that is used for hill farming. This varies in composition and includes some wet areas with rushes (*Juncus* spp.) and some areas subject to scrub encroachment. Some stands of deciduous woodland also occur, especially within the river valleys.*

The Slieve Bloom Mountains SPA is of ornithological importance because it provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species. The presence of three species, Hen Harrier, Merlin and Peregrine, which are listed on Annex I of the E.U. Birds Directive is of note. The Slieve Bloom Mountains is a Ramsar Convention site and a Biogenetic Reserve. Part of the Slieve Bloom Mountains SPA is a Statutory Nature Reserve.

### 2.7.6 Middle Shannon Callows SPA

*The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone to the town of Portumna; it lies within Counties Galway, Roscommon, Westmeath, Offaly and Tipperary. The site averages about 0.75 km in width though in places is up to 1.5 km wide. Water levels on the site are greatly influenced by the very small fall between Athlone and Portumna and by the weir at Meelick. The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. The callows are mainly too soft for intensive farming but are used for hay or silage or for summer grazing. Other habitats of smaller area which occur alongside the river include lowland dry grassland, freshwater marshes, reedbeds and wet woodland. The diversity of semi-natural habitats present and the sheer size of the site attract an excellent diversity of bird species, including significant populations of several.*

*The Middle Shannon Callows SPA is an internationally important site that supports an assemblage of over 20,000 wintering waterbirds. It holds internationally important populations of two species - Whooper Swan and Black-tailed Godwit. In addition, there are four species that have wintering populations of national importance. The site also supports a nationally important breeding population of Corncrake. Of particular note is that several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Corncrake and Golden Plover.*

## 2.8 Conservation Objectives

Table 6 identifies the Conservation Objectives of European sites which have a direct connection, or are within close proximity, with the Project Boundary. The contents in the below table are taken from the NPWS conservation objectives documents. The Conservation Objectives for other European sites which lie within the precautionary ZOI, but which have been screened out by virtue of distance or no other possible link (TABLE 5), are not included in this document.

**TABLE 6 CONSERVATION OBJECTIVES OF EUROPEAN SITES WHICH HAVE A DIRECT CONNECTION, OR ARE WITHIN CLOSE PROXIMITY, WITH THE PROJECT BOUNDARY.**

European site & code	Conservation Interests
<b>Special Areas of Conservation (SAC)</b>	
<p>Clonaslee Eskers and Derry Bog SAC (000859)</p> <p><a href="https://www.npws.ie/protected-sites/sac/000859">https://www.npws.ie/protected-sites/sac/000859</a></p>	<p>To maintain or restore the favourable conservation condition of the habitats for which this SAC has been designated:</p> <ul style="list-style-type: none"> <li>– Petrifying springs with tufa formation (Cratoneurion) [7220]</li> <li>– Alkaline fens [7230]</li> <li>– <i>Vertigo geyeri</i> (Geyer's Whorl Snail) [1013]</li> </ul>
<p>Slieve Bloom Mountains SAC (000412)</p> <p><a href="https://www.npws.ie/protected-sites/sac/000412">https://www.npws.ie/protected-sites/sac/000412</a></p>	<p>To maintain or restore the favourable conservation condition of the habitats for which this SAC has been designated:</p> <ul style="list-style-type: none"> <li>– Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</li> <li>– Blanket bogs (* if active bog) [7130]</li> <li>– Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> </ul>
<p>River Barrow and River Nore SAC (0002162)</p> <p><a href="https://www.npws.ie/protected-sites/sac/002162">https://www.npws.ie/protected-sites/sac/002162</a></p>	<p>To maintain or restore the favourable conservation condition of the habitats for which this SAC has been designated:</p> <ul style="list-style-type: none"> <li>– Estuaries [1130]</li> <li>– Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>– Reefs [1170]</li> <li>– Salicornia and other annuals colonising mud and sand [1310]</li> <li>– Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>– Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>– Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]</li> <li>– European dry heaths [4030]</li> <li>– Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]</li> <li>– Petrifying springs with tufa formation (Cratoneurion) [7220]</li> </ul>



	<ul style="list-style-type: none"> <li>– Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</li> <li>– Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> <li>– <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</li> <li>– <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>– <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</li> <li>– <i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> <li>– <i>Lampetra planeri</i> (Brook Lamprey) [1096]</li> <li>– <i>Lampetra fluviatilis</i> (River Lamprey) [1099]</li> <li>– <i>Alosa fallax fallax</i> (Twaiite Shad) [1103]</li> <li>– <i>Salmo salar</i> (Salmon) [1106]</li> <li>– <i>Lutra lutra</i> (Otter) [1355]</li> <li>– <i>Trichomanes speciosum</i> (Killarney Fern) [1421]</li> <li>– <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]</li> </ul>
<p>Charleville Wood SAC (000571) <a href="https://www.npws.ie/protected-sites/sac/000571">https://www.npws.ie/protected-sites/sac/000571</a></p>	<p>To maintain or restore the favourable conservation condition of the habitats for which this SAC has been designated:</p> <ul style="list-style-type: none"> <li>– Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> <li>– <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</li> </ul>
<b>Special Protection Areas (SPA)</b>	
<p>Slieve Bloom Mountains SPA (004160) <a href="http://www.npws.ie/protected-sites/spa/004160">http://www.npws.ie/protected-sites/spa/004160</a></p>	<p><b>Conservation Objectives, Version 1 (2022)</b></p> <ul style="list-style-type: none"> <li>– Hen Harrier (<i>Circus cyaneus</i>) [A082]</li> </ul>
<p>Middle Shannon Callows SPA (004096) <a href="http://www.npws.ie/protected-sites/spa/004096">http://www.npws.ie/protected-sites/spa/004096</a></p>	<p><b>Conservation Objectives, Version 1 (2022)</b></p> <ul style="list-style-type: none"> <li>– Whooper Swan (<i>Cygnus cygnus</i>) [A038]</li> <li>– Wigeon (<i>Anas penelope</i>) [A050]</li> <li>– Corncrake (<i>Crex crex</i>) [A122]</li> <li>– Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>– Lapwing (<i>Vanellus vanellus</i>) [A142]</li> <li>– Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>– Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</li> <li>– Wetland and Waterbirds [A999]</li> </ul>

## 2.9 Assessment of Significance of Potential Impacts

Section 2.9 will consider the significance of potential impacts upon the QI and/or SCI species and/or habitats within aforementioned European sites.

Installation activity within European sites will be limited to a total of 78 new items of infrastructure, namely: 69 poles and 9 lengths of fibreduct, which will be installed exclusively within *Clonaslee Eskers and Derry Bog SAC (000859)*, *Slieve Bloom Mountains SAC (000412)*, *River Barrow and River Nore SAC (0002162)* and *Slieve Bloom Mountains SPA (004160)* (Figure 9 – Figure 18).

A total of 53 items of infrastructure (26 poles, 2 chambers and 25 lengths of fibreduct) will be installed within 30m of European sites, as part of the project activities.

Within the Project Boundary, 84 items of infrastructure (51 poles, 2 chambers and 31 lengths of fibreduct) will be placed within 30m of watercourses which may ultimately flow into European sites within the precautionary ZOI of the Proposed Project.

In summary, it was concluded that there is no potential for significant effects on European sites. Due to the minor, temporary nature of the proposed new infrastructure installations, no significant 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 significant effects to the water quality and resource of any European site. The following paragraphs outline the rationale for these conclusions.

### 2.9.1 Habitat Loss and Alteration

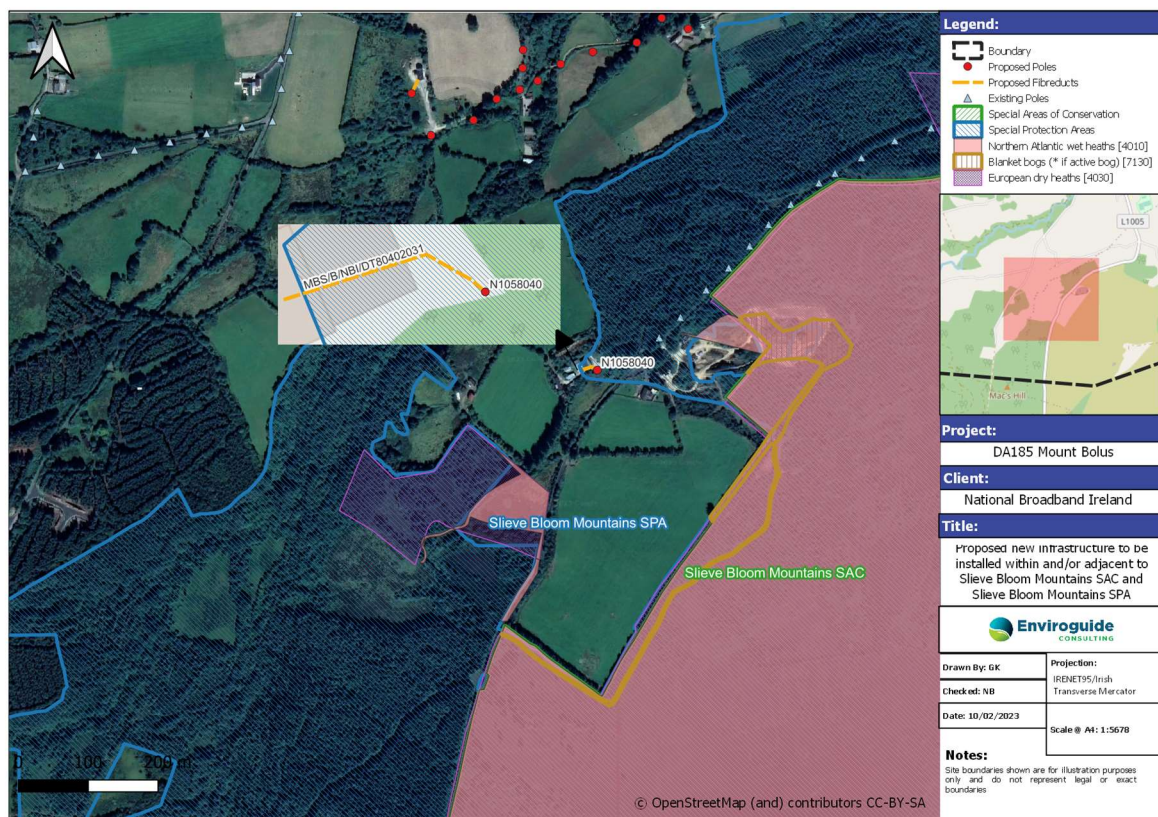
Should any of the estimated additional poles or any excavations for underground cables fall within a European site, it could conceivably constitute a loss/alteration of habitat, although extremely insignificant in size, at the designated site. Furthermore, tree trimming along the stretches of the route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

Installation activity within European sites will be limited to a total of 78 new items of infrastructure (69 poles and 9 lengths of fibreduct) as outlined above. Figure 9 – 17C show proposed infrastructure to be installed within European sites. The installation locations for these items follows road networks and is specified by NBI as ‘verge’ or ‘footway’ (Table 7). The QI habitats listed for the aforementioned European sites do not occur at the roadside locations defined above (Table 6).

Habitat polygons (available on NPWS website) and survey photographs provided by NBI were assessed as per the methodology in section 2.5.4. Figures 9, 10A-E & 11A-D show infrastructure that will be installed within and/or adjacent to NPWS habitat polygons for the following QI listed habitats: European dry heaths [4030] and Northern Atlantic wet heaths with *Erica tetralix* [4010] in *Slieve Bloom Mountains SAC (000412)* and *River Barrow and River Nore SAC*. Images of installation surfaces provided (10B-E & 11B-D) show that these locations are roadside verge, and not QI listed habitat. The installation of this infrastructure will not cause significant habitat loss to the aforementioned habitats because the infrastructure will be installed along a roadside verge that already intersects with the aforementioned habitat. A network connection is only possible using this route.

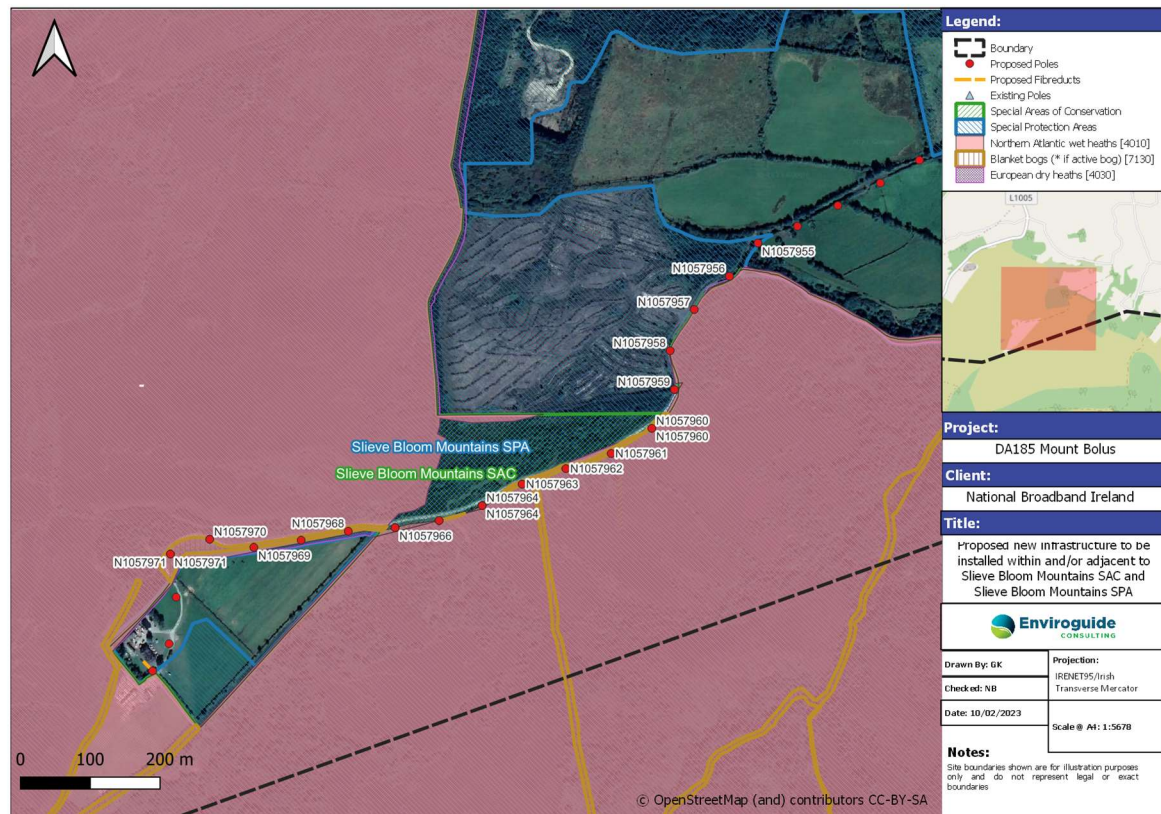
The remaining items of infrastructure (Figure 12-18) that occur in European sites will not be installed within or in close proximity to QI listed habitats, based on the data available. Furthermore, the remaining infrastructure will occur within *Slieve Bloom Mountains SPA (004160)* and will be installed along roadside verge. The QI listed species for *Slieve Bloom Mountains SPA (004160)* (Table 6) are bird species that do not utilise roadside verge locations for nesting or foraging habitat. Therefore, no habitat loss or alteration will occur as a result of proposed installation within *Slieve Bloom Mountains SPA (004160)*.

Therefore, installation activity will not result in habitat loss or alteration of the QI habitat listed for *Clonaslee Eskers and Derry Bog SAC (000859)*, *Slieve Bloom Mountains SAC (000412)*, *River Barrow and River Nore SAC (0002162)* and *Slieve Bloom Mountains SPA (004160)*.



**FIGURE 9: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES AND ANNEX 1 HABITAT.**





**FIGURE 10A: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES AND ANNEX 1 HABITAT.**



**FIGURE 10B N1057955 WILL BE INSTALLED ALONG ROADSIDE VERGE**





**FIGURE 10C N1057958 WILL BE INSTALLED ALONG ROADSIDE VERGE**

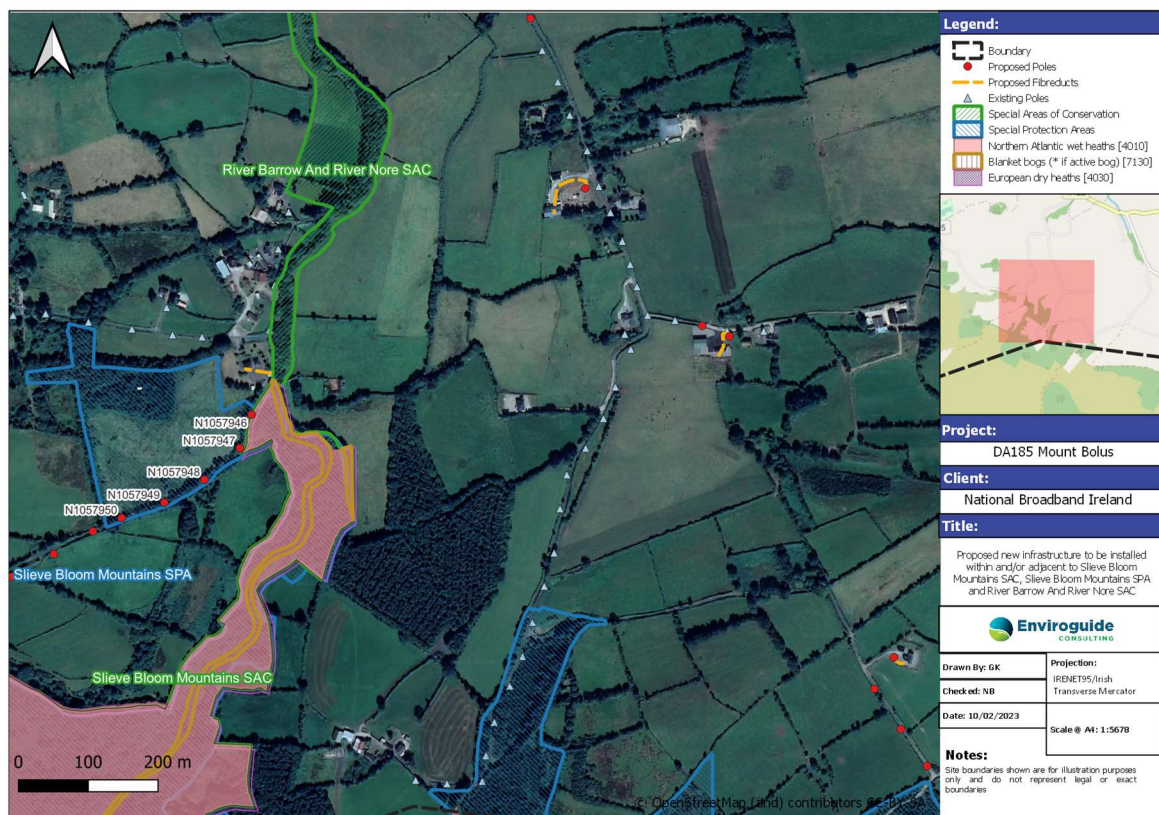


**FIGURE 10D N1057962 WILL BE INSTALLED ALONG ROADSIDE VERGE**





**FIGURE 10E N1057971 WILL BE INSTALLED ALONG ROADSIDE VERGE**



**FIGURE 11A: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES AND ANNEX 1 HABITAT.**





**FIGURE 11B N1057946 WILL BE INSTALLED ALONG ROADSIDE VERGE**

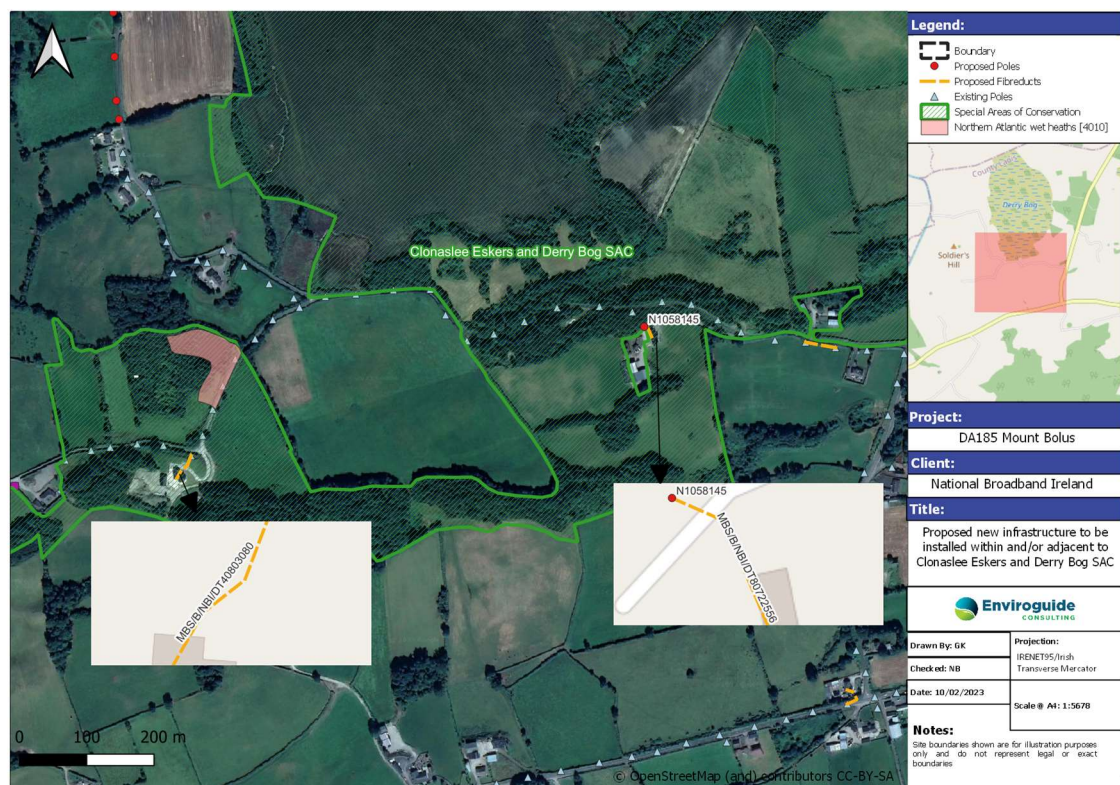


**FIGURE 11C N1057949 WILL BE INSTALLED ALONG ROADSIDE VERGE**



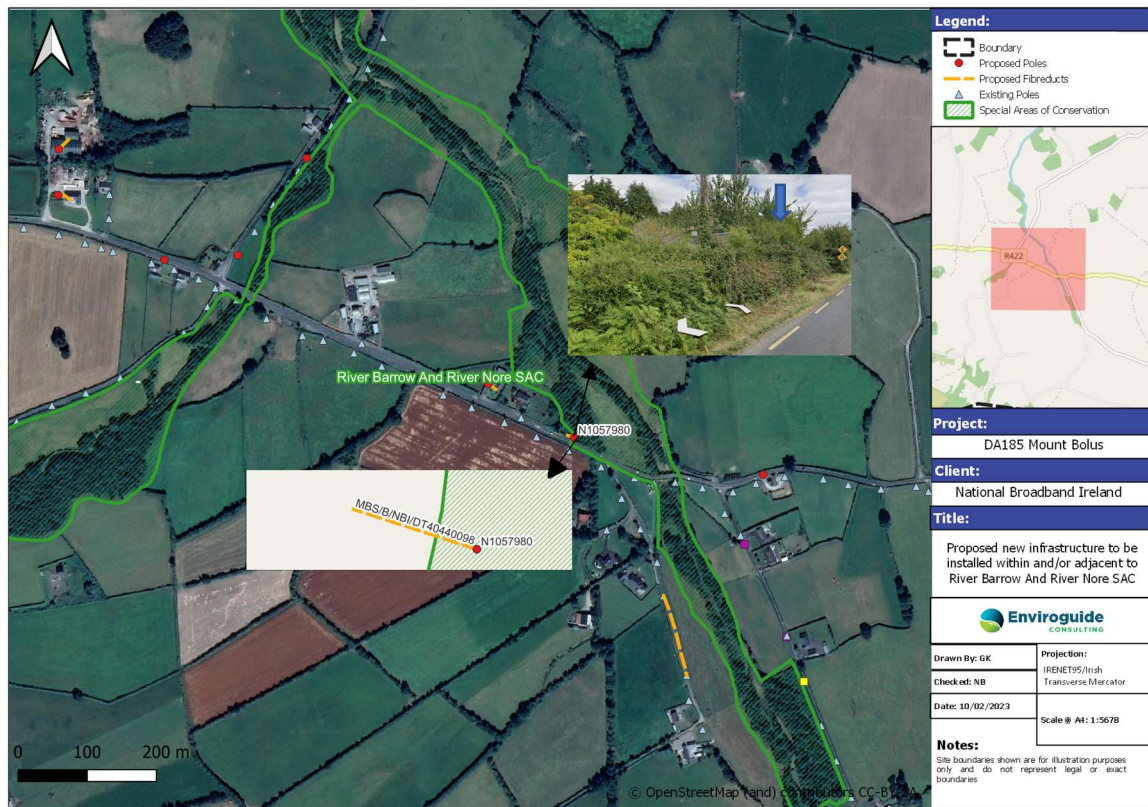


**FIGURE 11D N1057950 WILL BE INSTALLED ALONG ROADSIDE VERGE**



**FIGURE 12 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES, SHOWING INFRASTRUCTURE TO PRIVATE DWELLING.**





**FIGURE 13: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES. INSET: ROADWAY AND VERGE SURFACE UPON WHICH ITEMS N1057980 AND MBS/B/NBI/DT40440098 WILL BE LOCATED.**

## 2.9.2 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 installations, species involved and as the absence of QI habitats loss within any European sites, it is not considered that habitat fragmentation will arise from the Proposed Project.

## 2.9.3 Disturbance and/or Displacement of Species

‘Disturbance’ in an ecosystem is defined as any event “that disrupts the structure of an ecosystem, community, or population, and changes resource availability or the physical environment” (White and Pickett, 1985). The installation of proposed new infrastructure upstream, within or in close proximity to a European site may result in brief disturbance and/or displacement of QI/SCI species at European sites. Examples of disturbance to QI/SCI species that could occur as a result of project activities include: (i) displacement due to noise generation during the installation phase, (ii) increased collision risk presented by the installation of additional poles, or (iii) the deterioration in water quality as a result of sediment/pollutant discharge into a water body during the installation phase.

New infrastructure is proposed to be installed exclusively within *for Clonaslee Eskers and Derry Bog SAC (000859)*, *Slieve Bloom Mountains SAC (000412)*, *River Barrow and River Nore SAC (0002162)* and *Slieve Bloom Mountains SPA (004160)*. The potential impact of direct disturbance and/or displacement of QI/SCI species in these sites is considered below.

### 2.9.3.1 Potential Impacts to QI and SCI Species

Where new infrastructure is proposed to be installed within or in close proximity to European sites, the potential impact of noise disturbance upon QI/SCI species during the installation phase is considered.

In the case of *River Barrow and River Nore SAC (0002162)*, there are QI species listed for these SACs. Listed QI species such as *Lutra lutra* (Otter) [1355] may be susceptible to noise disturbance as a result of project activities. Infrastructure within *River Barrow and River Nore SAC (0002162)* is outlined in Figure 13. However, project activities (the installation of poles, chambers and ducting) will not generate significant amounts of noise, will be localised in extent and short term, commencing 30/04/2024 with a completion date of 18/09/2024. In addition, infrastructure is being installed predominantly along roadside verges, and not within areas of suitable breeding or foraging habitat for Otter. Therefore, it can be concluded that the Project activities will not have a significant effect on noise sensitive QI species in *River Barrow and River Nore SAC (0002162)*.

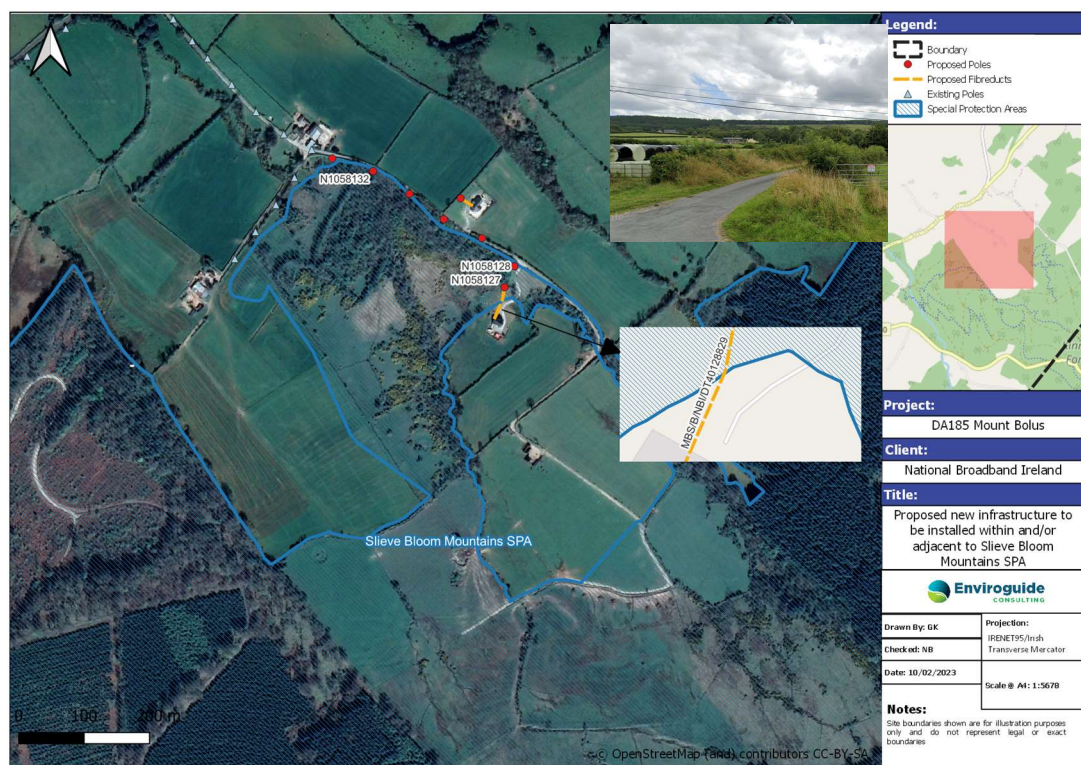
In the case of *Slieve Bloom Mountains SPA (004160)* there are several bird species listed as SCI species that may be susceptible to noise disturbance as a result of project activities. Infrastructure within *Slieve Bloom Mountains SPA (004160)* is outlined in Figures 12-18. However, project activities (the installation of poles, chambers and ducting) will not generate significant amounts of noise, will be localised in extent and short term, commencing 30/04/2024 with a completion date of 18/09/2024. Therefore, it can be concluded that the Project activities will not have a significant effect on noise sensitive SCI species in *Slieve Bloom Mountains SPA (004160)*.

Infrastructure installation within close proximity to SPAs may result in increased collision risk presented by the installation of additional poles along flight lines used by SCI species. In the case of *Slieve Bloom Mountains SPA (004160)* these items will be installed in proximity to extensive lines of existing infrastructure (Figure 11A and 16A). Therefore, SCI species will be acclimatised to minimal obstruction of the skyline at this location, and collision is not considered a significant risk.

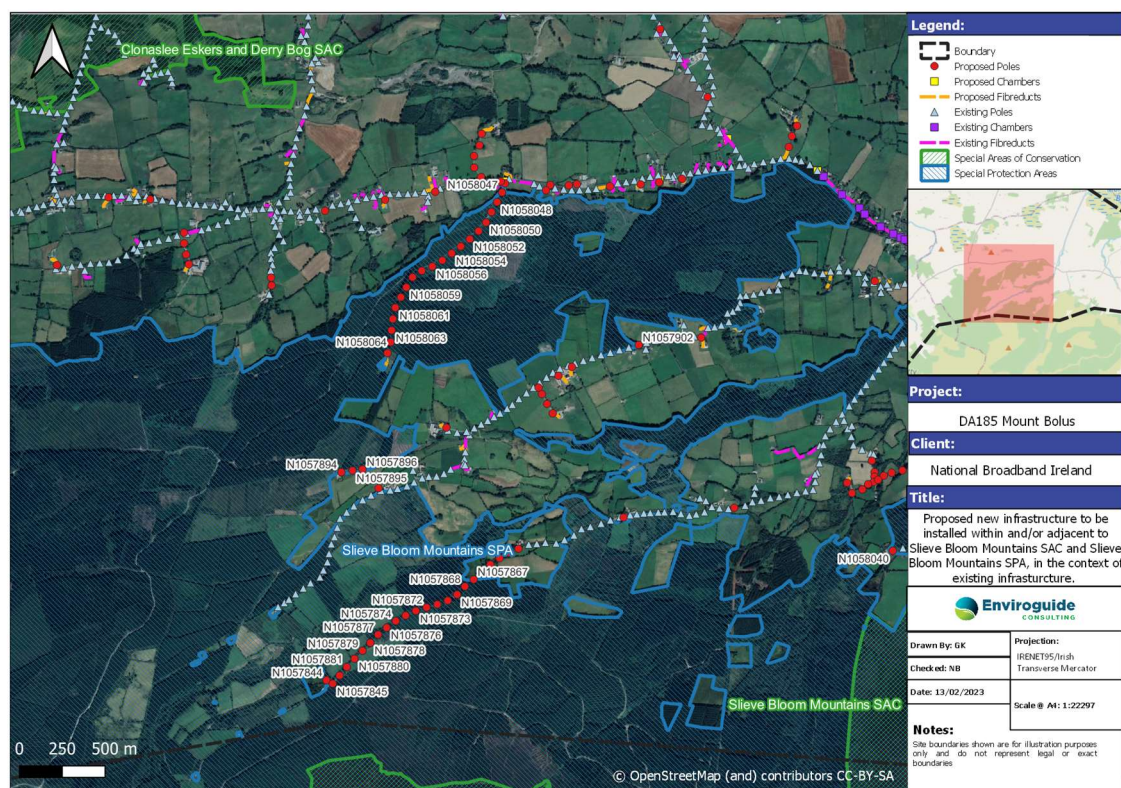
Therefore, it can be concluded that the Project activities will not have a significant effect as a result of disturbance and/or displacement to QI/SCI species as a result of the impacts described above.

While QI species are listed for the aforementioned European sites, due to the location of the project activities and presence of existing infrastructure at the European site, it is considered that Project activities will not cause any significant disturbance and/or displacement of QI species at aforementioned European sites.



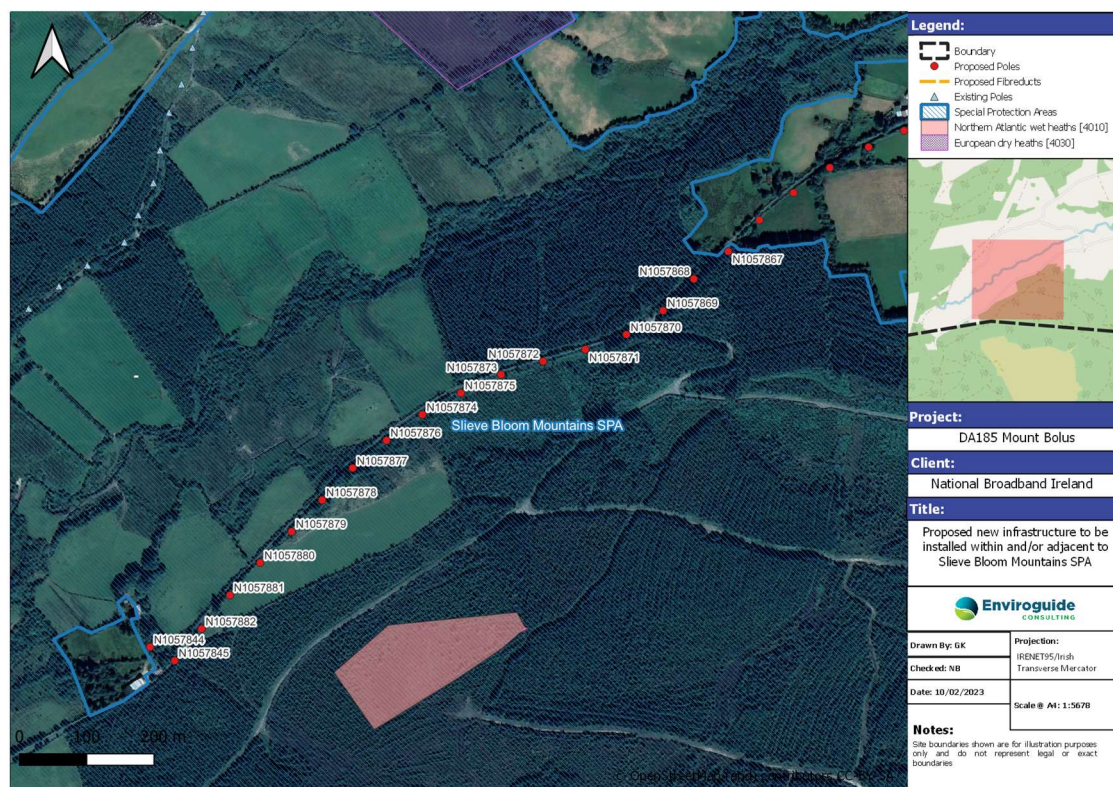


**FIGURE 14 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITE. INSET: ROADWAY ENTRANCE LEADING UP TO ROADWAY AND VERGE UPON WHICH ITEMS OF INFRASTRUCTURE WILL BE INSTALLED.**



**FIGURE 15 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES. PROPOSED POLES (RED) IN THE SLIEVE BLOOM MOUNTAINS SPA SHOWN AT SMALLER SCALE IN THE CONTEXT OF EXISTING POLES (BLUE).**





**FIGURE 16A: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES (ALSO SHOWN IN FIGURE 11 AT SMALLER SCALE).**



**FIGURE 15B N1057844 WILL BE INSTALLED ALONG ROADSIDE VERGE**





**FIGURE 15C N1057879 WILL BE INSTALLED ALONG ROADSIDE VERGE**

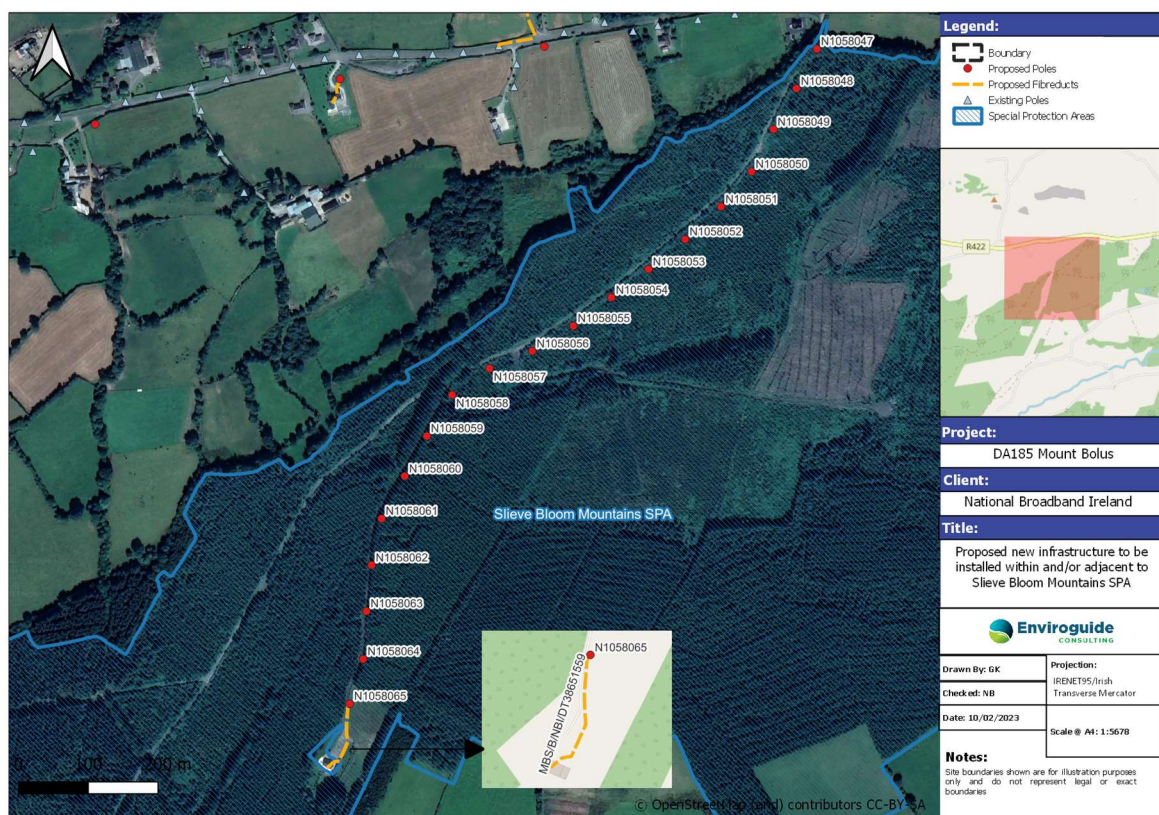


**Figure 15D N1057871 WILL BE INSTALLED ALONG ROADSIDE VERGE**





**Figure 15E N1057867 WILL BE INSTALLED ALONG ROADSIDE VERGE**



**FIGURE 17A: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES (ALSO SHOWN IN FIG 11 AT HIGHER SCALE).**





***FIGURE 16B N1058047 WILL BE INSTALLED ALONG ROADSIDE VERGE***



***FIGURE 16C N1058051 WILL BE INSTALLED ALONG ROADSIDE VERGE***

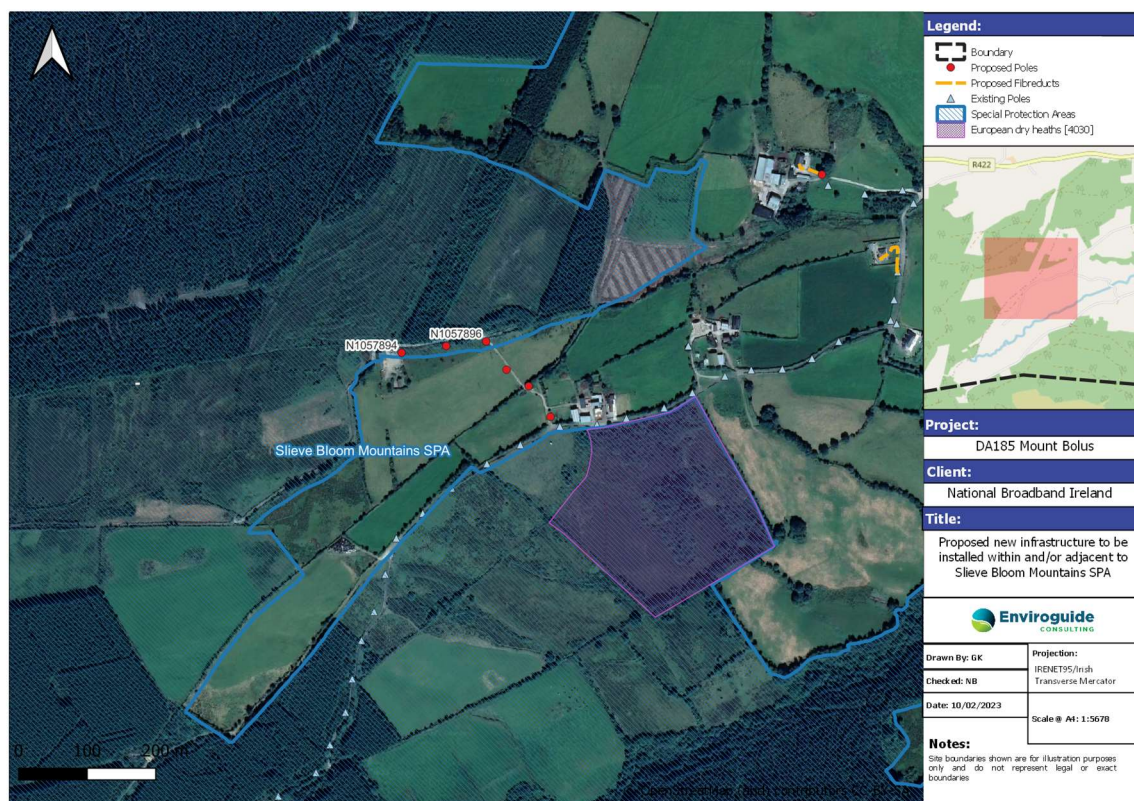


***Figure 16D N1058057 WILL BE INSTALLED ALONG ROADSIDE VERGE***

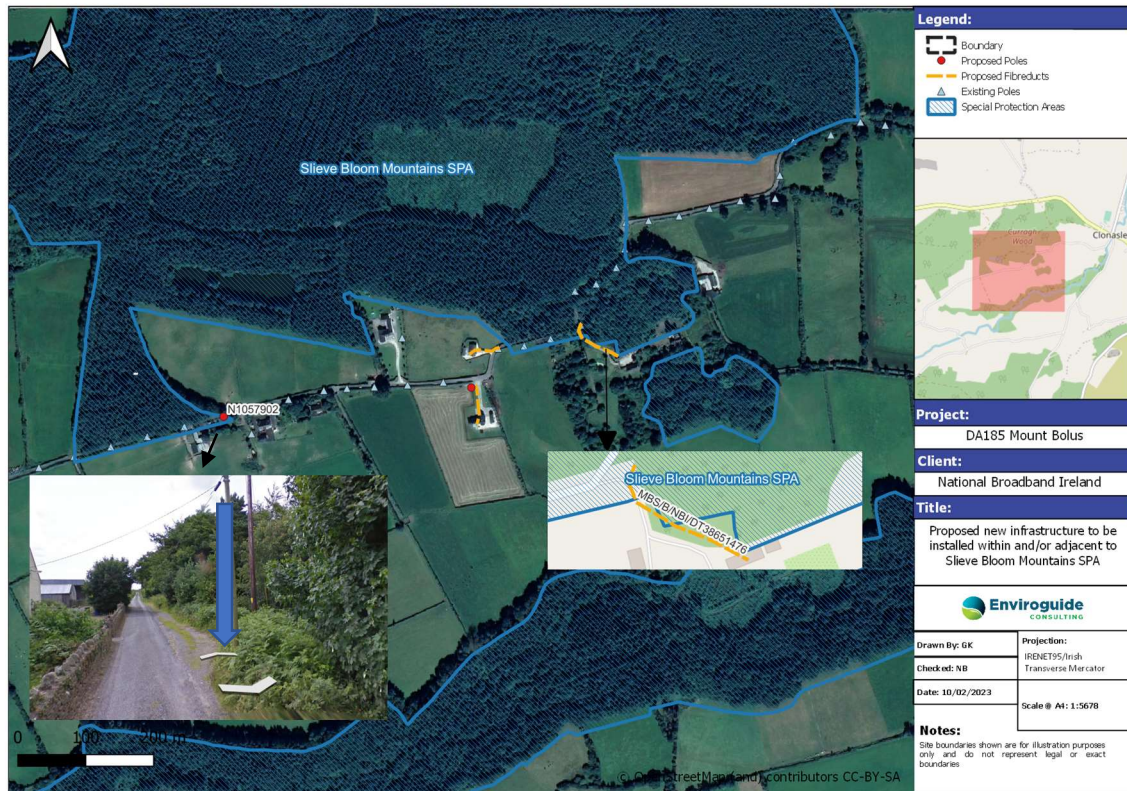


***FIGURE 16E N1058065 WILL BE INSTALLED ALONG ROADSIDE VERGE ADJACENT TO A PRIVATE ENTRANCE.***





**FIGURE 18: PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITE WITHIN THE PROJECT BOUNDARY**



**FIGURE 18 PROPOSED NEW INFRASTRUCTURE WITHIN AND/OR ADJACENT TO EUROPEAN SITES. INSET: ROADWAY AND VERGE SURFACE UPON WHICH ITEMS N1057902 WILL BE LOCATED.**



### 2.9.3.2 Potential impacts arising due to installation activities upstream or adjacent to European sites.

Within the Project Boundary, 84 items of infrastructure (51 poles, 2 chambers and 31 lengths of ducting) will be placed within 30m of watercourses which may ultimately flow into European sites within the precautionary ZOI of the Proposed Project.

Where new infrastructure is proposed to be installed within 30m of watercourses which ultimately flow into European sites within the precautionary ZOI of the Project, the potential impact of water quality deterioration upon QI/SCI species as a result of the installation phase of the project must be considered.

The installation of each new pole or replacement of existing poles or installation of underground ducts or chambers takes place within a very small, localised footprint and will not generate significant amounts of sediment. While it is unlikely that proposed items of infrastructure within 30m of watercourses will result in significant downstream effects on protected bird or mammal species in the aforementioned European sites, new items of infrastructure within close proximity to waterbodies within or flowing into European sites are assessed further below.

There are several molluscs, fish and mammal species listed for European sites with hydrological pathways to project activities which may be susceptible to water quality deterioration. These sites are listed as follows: *Clonaslee Eskers and Derry Bog SAC* (000859), *Slieve Bloom Mountains SAC* (000412), *River Barrow and River Nore SAC* (0002162), *Charleville Wood SAC* (000571), *Slieve Bloom Mountains SPA* (004160) and *Middle Shannon Callows SPA* (004096).

Invertebrate QI species which may be susceptible to water quality deterioration include *Margaritifera margaritifera* (Freshwater Pearl Mussel) *Austropotamobius pallipes* (White-clawed Crayfish) [1092] and *Margaritifera durrovensis* (Nore Pearl Mussel) [1990]. Fish QI species which may be susceptible to water quality deterioration include *Petromyzon marinus* (Sea Lamprey) [1095], *Lampetra planeri* (Brook Lamprey) [1096], *Lampetra fluviatilis* (River Lamprey) [1099], *Alosa fallax fallax* (Twait Shad) [1103] and *Salmo salar* (Salmon) [1106]. Mammal QI species listed for these sites which may be susceptible to water quality deterioration include *Lutra lutra* (Otter) [1355].

The new items of infrastructure within close proximity to waterbodies within or flowing into European sites 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 following desk studies that these new items of infrastructure will not result in significant effects on European sites and the aquatic species therein for one or more of the following criteria:

- 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/lane-way/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 very minor nature and temporary duration of the Project Activities.

#### **2.9.4 Changes in Population Density**

For the reasons outlined in section 2.9.3. above, the Proposed Project will not cause any reduction in the baseline population of specie associated with any European site.

#### **2.9.5 Changes in Water Quality and Resource**

The Project Boundary 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 activities, into waterbodies in close proximity to the project activities. 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 using GIS imagery, street view or photos provided by NBI to determine potential hydrological linkages with European sites. It was concluded, following desk studies that these items of infrastructure would not result in significant effects on European sites and the aquatic species therein as each of the proposed infrastructure met one or more of the following criteria:

1. The new item(s) of infrastructure being placed an acceptable distance from a watercourse (e.g., not on or immediately adjacent to a riverbank),
2. The new item(s) of infrastructure being placed on the opposite side of the road/lane-way/track to the watercourse,
3. The presence of a vegetation buffer (e.g., hedgerow) between the new item(s) of infrastructure and the watercourse,
4. The distance between the new item(s) of infrastructure and downstream European site, and consequent dilution factor.
5. The very minor nature and temporary duration of the Project activities.

The results of the assessment of each of the proposed features on the basis of criteria 1-4 as described above are presented in Appendix 1

In addition, the project activities do not include any water course crossing or instream works. The installation of each new pole or replacement of existing poles or installation of underground ducts or chambers takes place within a very small, localised footprint and will not generate significant amounts of sediment. The Proposed Project will have no impact on the flow rates or nutrient levels of any waterbody.

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.

#### **2.9.6 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,
- Offaly County Development Plan 2021- 2027,
- Laois County Development Plan 2021- 2027,
- Third Cycle Draft River Basin Management Plan 2022-2027,
- River Basin Management Plan 2022-2027,
- Flood Risk Management Plan for the Lower Shannon Basin 2021-2027,
- Flood Risk Management Plan for the Barrow Basin 2021-2027.

The 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 Mount Bolus Project. There are no neighbouring DAs scheduled for installation activities in parallel with the Mount Bolus DA build, therefore no in-combination effects from adjoining DA's are possible.

The Offaly and Laois Councils development plan outline specific objectives and policies for the protection of European sites.

The River Basin Management Plans are set out to protect and improve water quality, and as such will not result in negative in-combination effects with the current Project. The proposed measures for Flood Risk Management Plan for the Lower Shannon and Barrow River Basin, Flood Risk Management Plan for the Lower Shannon and Barrow River Basin including Mount Bolus, include the maintenance of arterial drainage schemes and the development and progression of flood forecasting schemes in the Mount Bolus vicinity. It is not considered that these existing and 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 AA, 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

Recent (within the last 3 years) pending and/or permitted planning permissions within c.250m of the proposed infrastructure located within a European site were reviewed, using the National Planning Application Database<sup>2</sup> and the Planning Application Interactive Map<sup>3</sup>. Given the minor and temporary nature of the installation activities, a relatively small buffer of 250m was considered sufficient to assess in-combination effects with existing proposed and/or permitted developments. Withdrawn, refused, and incomplete applications were eliminated from the search. In this instance, no installation activity will occur within any European site, and therefore no in combination effects as a result of pending planning permission applications were assessed.

#### **2.9.7 Proposed Infrastructure within 30m of European sites.**

Proposed new items of infrastructure within 30m of European sites are identified in Figure 8. A total of 53 items of infrastructure (26 poles, 2 chambers, and 25 lengths of ducting) will be installed within 30m of European sites, as part of the project activities.

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 activities will be very minor in nature and short-term in duration and therefore do not present a threat to any protected species.

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

<sup>3</sup> <https://www.arcgis.com/apps/webappviewer/index.html?id=3570e45b0e354cf0b740ecbc7505adb2>

**TABLE 7 SUMMARY OF INTERSECTING INFRASTRUCTURE WITHIN EUROPEAN SITES.**

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057960	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057961	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057962	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057963	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057964	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057965	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057966	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057969	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.



Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057970	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057971	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057980	Utility Pole	Verge	River Barrow and River Nore SAC (0002162)	Ref:22203	Proposed poles occur on existing roadside verge. Planning applications are small scale (construction of extension of cottage) .	No likelihood of significant negative effects.
N1058145	Utility Pole	Verge	Clonaslee Eskers and Derry Bog SAC (000859)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057844	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057845	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057867	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057868	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057869	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057870	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057871	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057872	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057873	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057874	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057875	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057876	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057877	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057878	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057879	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057880	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.



Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057881	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057882	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057894	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057895	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057896	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057902	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057946	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057947	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057948	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057949	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057950	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057955	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057956	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057957	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057958	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057959	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057960	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057961	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057962	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057963	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.



Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057964	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057965	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057966	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057967	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1057968	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057969	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057970	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1057971	Utility Pole	Verge	Slieve Bloom Mountains SAC (000412) and Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058040	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058047	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058048	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058049	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058050	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058051	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058052	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058053	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058054	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058055	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058056	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058057	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.



Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058058	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058059	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058060	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058061	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058062	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058063	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058064	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058065	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
N1058127	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058128	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
N1058132	Utility Pole	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed poles occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT40803 080	Fibreduct	Verge	Clonaslee Eskers and Derry Bog SAC (000859)	None	Proposed fibreduct occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
MBS/B/NBI/DT80722 556	Fibreduct	Footway	Clonaslee Eskers and Derry Bog SAC (000859)	None	Proposed fibreduct occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT40440 098	Fibreduct	Verge	River Barrow And River Nore SAC (0002162)	Ref:22203	Proposed fibreduct occur on existing roadside verge. Planning applications are small scale (construction of extention of cottage) .	No likelihood of significant negative effects.
MBS/B/NBI/DT38651 476/2	Fibreduct	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT80402 031/2	Fibreduct	Footway	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing footway. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.



Barcode/Duct Label	Infrastructure	Location	Site Name	Planning Application reference	Assessment Findings	Conclusion
MBS/B/NBI/DT40128 829	Fibreduct	Footway	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing footway. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT38651 559	Fibreduct	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT80402 031	Fibreduct	Footway	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing footway. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.
MBS/B/NBI/DT38651 476	Fibreduct	Verge	Slieve Bloom Mountains SPA (004160)	None	Proposed fibreduct occur on existing roadside verge. No significant scale planning applications were recorded within 250m of proposed infrastructure.	No likelihood of significant negative effects.

**TABLE 8: 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 Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
Clonaslee Eskers and Derry Bog SAC (000859)	No	No	No	None	None	<b>No</b>
Slieve Bloom Mountains SAC (000412)	No	No	No	None	None	<b>No</b>
River Barrow And River Nore SAC (0002162)	No	No	No	None	None	<b>No</b>
Charleville Wood SAC (000571)	No	No	No	None	None	<b>No</b>
Clara Bog SAC (000572)	No	No	No	None	None	<b>No</b>
Ferbane Bog SAC (000575)	No	No	No	None	None	<b>No</b>
Moyclare Bog SAC (000581)	No	No	No	None	None	<b>No</b>
Island Fen SAC (002236)	No	No	No	None	None	<b>No</b>
River Shannon Callows SAC (000216)	No	No	No	None	None	<b>No</b>
Lisduff Fen SAC (002147)	No	No	No	None	None	<b>No</b>
Ridge Road, SW of Rapemills SAC (000919)	No	No	No	None	None	<b>No</b>
All Saints Bog and Esker SAC (000566)	No	No	No	None	None	<b>No</b>

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
Mountmellick SAC (002141)	No	No	No	None	None	<b>No</b>
Pilgrim's Road Esker SAC (001776)	No	No	No	None	None	<b>No</b>
Coolrain Bog SAC (002332)	No	No	No	None	None	<b>No</b>
Fin Lough (Offaly) SAC (000576)	No	No	No	None	None	<b>No</b>
Mongan Bog SAC (000580)	No	No	No	None	None	<b>No</b>
Sharavogue Bog SAC (000585)	No	No	No	None	None	<b>No</b>
Split Hills and Long Hill Esker SAC (001831)	No	No	No	None	None	<b>No</b>
Slieve Bloom Mountains SPA (004160)	No	No	No	None	None	<b>No</b>
Middle Shannon Callows SPA (004096)	No	No	No	None	None	<b>No</b>
Dovegrove Callows SPA (004137)	No	No	No	None	None	<b>No</b>
All Saints Bog SPA (004103)	No	No	No	None	None	<b>No</b>
River Little Brosna Callows SPA (004086)	No	No	No	None	None	<b>No</b>

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
Mongan Bog SPA (004017)	No	No	No	None	None	<b>No</b>
River Nore SPA (004233)	No	No	No	None	None	<b>No</b>



### 3 CONCLUDING STATEMENT

The Proposed Project consisting of the installation of Broadband Network at DA185 Mount Bolus, in Counties Waterford and Tipperary, has been assessed taking into account:

- The nature, size and location of the proposed installations and possible impacts arising from the installation activities.
- The qualifying interests and conservation objectives of the European 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 **can be excluded** that the Proposed Project will have a likely significant effect on any of the European sites listed below:

- **Clonaslee Eskers and Derry Bog SAC (000859)**
- **Slieve Bloom Mountains SAC (000412)**
- **River Barrow And River Nore SAC (0002162)**
- **Charleville Wood SAC (000571)**
- **Clara Bog SAC (000572)**
- **Ferbane Bog SAC (000575)**
- **Moyclare Bog SAC (000581)**
- **Island Fen SAC (002236)**
- **River Shannon Callows SAC (000216)**
- **Lisduff Fen SAC (002147)**
- **Ridge Road, SW of Rapemills SAC (000919)**
- **All Saints Bog and Esker SAC (000566)**
- **Mountmellick SAC (002141)**
- **Pilgrim's Road Esker SAC (001776)**
- **Coolrain Bog SAC (002332)**
- **Fin Lough (Offaly) SAC (000576)**
- **Mongan Bog SAC (000580)**

- **Sharavogue Bog SAC (000585)**
- **Split Hills and Long Hill Esker SAC (001831)**
- **Slieve Bloom Mountains SPA (004160)**
- **Middle Shannon Callows SPA (004096)**
- **Dovegrove Callows SPA (004137)**
- **All Saints Bog SPA (004103)**
- **River Little Brosna Callows SPA (004086)**
- **Mongan Bog SPA (004017)**
- **River Nore SPA (004233)**

Thus, it can be concluded on the basis of the results of Stage 1 of the AA process that there is no requirement to proceed to Stage 2 of said process; and the preparation of a NIS is not required.

## 4 REFERENCES

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NPWS (2019) Conservation Objectives: Lisduff Fen SAC 002147. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2018) Conservation Objectives: Ridge Road, SW of Rapemills SAC 000919. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

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NPWS (2022) Conservation objectives for River Little Brosna Callows SPA [004086]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

NPWS (2022) Conservation objectives for River Nore SPA [004233]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

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NPWS (2022) Conservation Objectives: Slieve Bloom Mountains SPA 004160. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

## APPENDIX 1

The following table presents the results of the assessment of all items of infrastructure within 30m or less of a waterbody against the following criteria:

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

**Table 1: Summary of the likely impacts of proposed infrastructure within 30m of watercourses leading to European sites.**

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
N1057508	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057509	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057510	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057522	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057616	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057631	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
N1057632	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057675	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
N1057688	Verge	No	No	Yes	No	No likelihood of significance impacts
N1057215	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057216	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057217	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057218	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057219	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057241	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts



Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
N1057242	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057243	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057249	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057320	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057437	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057445	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057759	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057780	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057792	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
N1057859	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057861	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057862	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057914	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057915	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057916	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057917	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057932	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057933	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057934	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057935	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057980	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057983	Verge	No	No	Yes	Yes	No likelihood of significance impacts

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
N1057991	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058016	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058017	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058023	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058024	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1058078	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058079	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058123	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058124	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058127	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058128	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058132	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058133	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058166	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/C/EIR/CH226	Grass	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/A/EIR/CH205	Grass	No	Yes	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37888193	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT40128888	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37459572	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37459573	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT40304731	Footway	No	No	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT1185000023	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
MBS/C/NBI/DT41003611	Verge	No	No	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT80653150	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/C/NBI/DT60207428	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT02081530/3	Verge	No	No	No	Yes	No likelihood of significance impacts
MBS/A/NBI/DT02081530/2	Verge	No	No	No	Yes	No likelihood of significance impacts
MBS/A/NBI/DT02081530	Verge	No	No	No	Yes	No likelihood of significance impacts
MBS/A/NBI/DT80733286	Footway	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT40651689	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT40786650	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT01973972/2	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80722752/2	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/B/NBI/DT40128829	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT80722752	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/B/NBI/DT01973429	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT1185000049	Verge	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT01973972	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80397085	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT40628379	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT35362367	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT40338828	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DTN1058016	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT80720880	Verge	No	No	Yes	Yes	No likelihood of significance impacts

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
MBS/B/NBI/DT40440098	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT27113757	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80720582	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
N1057508	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057509	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057510	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057522	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057616	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057631	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
N1057632	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057675	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
N1057688	Verge	No	No	Yes	No	No likelihood of significance impacts
N1057215	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057216	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057217	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057218	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057219	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057241	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057242	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057243	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057249	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057320	Verge	No	No	Yes	Yes	No likelihood of significance impacts

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
N1057437	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057445	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057759	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057780	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
N1057792	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
N1057859	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057861	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057862	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057914	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057915	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057916	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057917	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057932	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057933	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057934	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057935	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1057980	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1057983	Verge	No	No	Yes	Yes	No likelihood of significance impacts
N1057991	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058016	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058017	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058023	Verge	Yes	No	Yes	No	No likelihood of significance impacts



Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
N1058024	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
N1058078	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058079	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058123	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058124	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058127	Verge	No	No	Yes	No	No likelihood of significance impacts
N1058128	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058132	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058133	Verge	Yes	No	Yes	No	No likelihood of significance impacts
N1058166	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/C/EIR/CH226	Grass	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/A/EIR/CH205	Grass	No	Yes	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37888193	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT40128888	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37459572	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT37459573	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT40304731	Footway	No	No	No	Yes	No likelihood of significance impacts
MBS/C/NBI/DT1185000023	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT41003611	Verge	No	No	Yes	Yes	No likelihood of significance impacts
MBS/C/NBI/DT80653150	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/C/NBI/DT60207428	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT02081530/3	Verge	No	No	No	Yes	No likelihood of significance impacts

Infrastructure Barcode	Location	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Conclusion
MBS/A/NBI/DT02081530/2	Verge	No	No	No	Yes	No likelihood of significance impacts
MBS/A/NBI/DT02081530	Verge	No	No	No	Yes	No likelihood of significance impacts
MBS/A/NBI/DT80733286	Footway	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT40651689	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/A/NBI/DT40786650	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT01973972/2	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80722752/2	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/B/NBI/DT40128829	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT80722752	Verge	Yes	Yes	No	Yes	No likelihood of significance impacts
MBS/B/NBI/DT01973429	Verge	No	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT1185000049	Verge	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT01973972	Verge	Yes	No	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80397085	Verge	Yes	Yes	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT40628379	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT35362367	Footway	No	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT40338828	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DTN1058016	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT80720880	Verge	No	No	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT40440098	Verge	Yes	No	Yes	No	No likelihood of significance impacts
MBS/B/NBI/DT27113757	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts
MBS/B/NBI/DT80720582	Verge	Yes	Yes	Yes	Yes	No likelihood of significance impacts



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