February 2026

Appropriate Assessment – Stage 1: Screening Report

Proposed 110kV Substation and Underground Grid Connection

at

Killoran, Co. Tipperary

On behalf of

Soleirtricity Lisheen Ltd.

MALONE O'REGAN ENVIRONMENTAL

MALONE O'REGAN

Form ES - 04

MALONE O'REGAN ENVIRONMENTAL

Ground Floor – Unit 3
Bracken Business Park
Bracken Road, Sandyford
Dublin 18, D18 V32Y
Tel: +353- 1- 567 76 55
Email: enviro@mores.ie

Title: Appropriate Assessment – Stage 1: Screening Report, Proposed 110kV Substation and Underground Grid Connection, Soleirtricity Lisheen Ltd., Killoran, Co. Tipperary

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Prepared By: Sophie Keating **Signed:** Sophie Keating

Checked By: Kathryn Broderick/Chris Savage **Signed:** K. Broderick

Approved By: Kevin O'Regan **Signed:**

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Appropriate Assessment – Stage 1: Screening Report
Proposed 110kV Substation and Underground Grid Connection
Soleirtricity Lisheen Ltd.
Killoran, Co. Tipperary

Contents

FIGURES

TABLES

1 INTRODUCTION

Malone O'Regan Environmental ('MOR Environmental') was commissioned by Soleirtricity Lisheen Ltd. ('the Applicant') to undertake an Appropriate Assessment Screening Report ('AA') to assess the potential adverse effects, if any, of the proposed 110kV substation (henceforth referred to as 'the 110kV Substation') and associated 110kV underground cable (henceforth referred to as 'the UGC') on nearby sites with European conservation designations (i.e., European sites).

The 110kV Substation and UGC (henceforth collectively referred to as 'the Proposed Development') connecting the proposed 110kV substation to the existing Lisheen 110kV ESB substation is located at Killoran, Thurles, Co. Tipperary (ITM OS Reference 621463 666719). A detailed description of the Proposed Development is provided in Chapter 4 of this AA.

The Proposed Development will transmit power from the permitted Lisheen Solar Photovoltaic ('PV') Farm (Planning Ref: 21/1128) (henceforth referred to as the 'Permitted Solar Development') via the UGC, which will connect into the existing Lisheen 110kV ESB substation located circa ('ca.') 750m west of the Permitted Solar Development. Please note that this Permitted Solar Development has received a 76MEC AC Eirgrid Grid Connection Offer to export to the national electricity transmission system.

The Applicant entered into pre-application consultation with An Coimisiún Pleanála ('ACP') on 17th September 2024, as provided for in Section 182E of the Planning and Development Act, 2000, as amended. ACP formally determined on 28th October 2025 that the Proposed Development was 'strategic infrastructure' in accordance with Section 182A of the Planning and Development Act, 2000, as amended.

The purpose of this assessment is to determine the appropriateness, or otherwise, of the proposed works in the context of the conservation objectives of European sites through the research and interpretation of the best scientific, geographic and engineering knowledge. This report seeks to determine whether the Proposed Development will, on its own or in combination with other plans / projects, have a significant effect on the integrity of European sites within a defined zone of influence ('ZOI') of the Site.

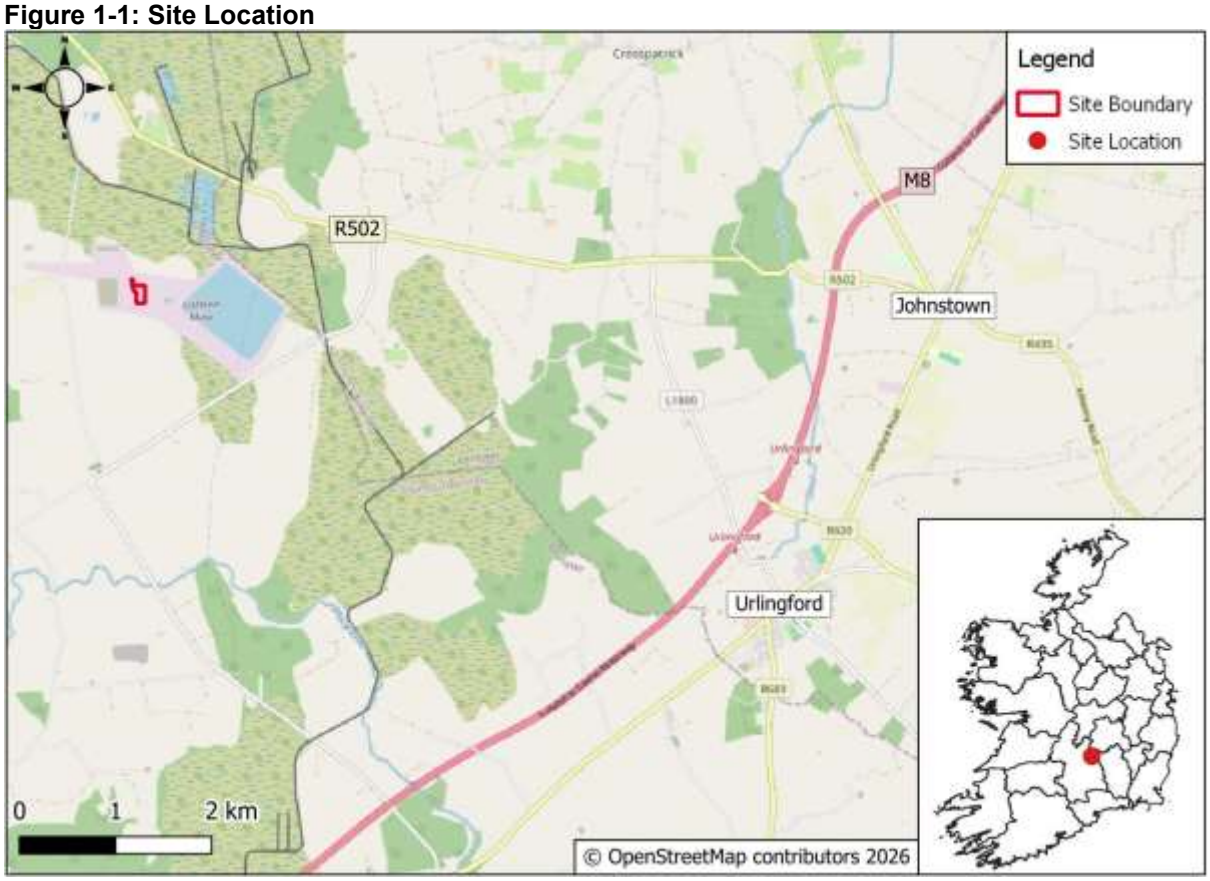
This AA has been prepared without considering mitigation measures intended to avoid or reduce an impact on a European site.

1.1 Site Location

The Proposed Development will be located on a site that is ca. 2 hectares ('ha') and is situated in the townland of Killoran, North Tipperary, ca. 6.3km northwest of Urlingford and ca. 12.6km southeast of Templemore (henceforth referred to as the 'Site'). The Site is shown in Figure 1-1.

The Permitted Solar Development will be located on the former Tailings Management Facility ('TMF') on lands that Vedanta Lisheen Mining Limited currently manages under an Integrated Pollution Control ('IPC') License P0088-04 that the Environmental Protection Agency ('EPA') regulates.

Figure 1-1: Site Location



1.2 The Applicant

Soleirtricity Lisheen Ltd. is an Irish firm that develops solar PV farms in Ireland. Their principal activity is the design, build, finance and operation of solar PV farms in Ireland, supplying green electricity via private wires directly to businesses across the country and to the public grid.

1.3 Planning Background

1.3.1 Permitted Planning Permissions

The Proposed Development will be critical infrastructure, intrinsically linked to permitted and planned renewable energy projects, that will initially comprise a large-scale consented solar development.

The Proposed 110kV Substation will be required to facilitate a step-up of the medium voltage supply (33kV) from the Permitted Solar Development to the existing Lisheen 110kV ESB Substation. The design of the Proposed Development will mean that it could be readily expanded in the future to accommodate other renewable energy projects and, as such, it will be a key node on the grid.

It is proposed that, subject to obtaining consent for the Proposed Development, the proposed 110kV substation will be developed in place of a previously permitted 38kV substation granted by Tipperary County Council (Planning Ref: 211128).

It is predicted that the Proposed Development will be constructed in conjunction with the Permitted Solar Development as part of one development (henceforth known as the 'Overall Development').

Tipperary County Council Planning Ref: 211128 – Granted

> *The construction of a Solar PV development with a maximum export capacity ('MEC') of up to 122MW, comprising ca. 214,800 no. photovoltaic panels laid out in arrays, the construction of a 38kV Substation (ca.57.31m2 x 4.45m tall), along with associated ancillary development, including 30 no. Transformer Stations (ca. 7.27m2 x 2.6m) with an integrated bund, 716 string Inverters, 1 no. DNO Substation Building (16.28m2 x 5.42m), 1 No. Storage and maintenance building (ca. 57.31m2 x 4.45m tall), 38 no. CCTV cameras mounted on ca. 3.8m high poles, perimeter security fencing and all ancillary works. The total development area will be ca. 77ha.*

Tipperary County Council granted the Permitted Solar Development on 23rd February 2022. Figure 1-2 illustrates the Permitted Solar Development and the Proposed Development.

Figure 1-2: Site Context

1.4 Site Context Background

1.4.1 Former Lisheen Mine

The Site comprises a section of the former Lisheen Mine. 1Chevron Limited discovered the Lisheen deposit of lead and zinc in 1990. Minorco Lisheen Limited began developing the mine in 1997 by constructing the main mine decline and facilities. From the outset, the Lisheen Mine operated under an IPC licence, issued by the EPA. Ivernia West and Anglo-American initially carried out mining.

Lead and zinc production commenced in 1998, with the first production ore brought to the surface in 1999. Mining activity continued for 17 years. At its peak, the mine employed 400 staff and was the 12th largest zinc mine in the world. The mine produced an average of 6,000 tonnes of lead and zinc ore per day, around 300,000 tonnes of ore per year and a total of 22.4 million tonnes overall.

The total landholding of the former Lisheen Mine was 445ha. The ore deposits were extracted from depths of up to 200m below the surface from four distinct ore bodies:

- Main Zone;
- Derryville Zone;
- Bog Zone; and,
- Derryville Island Zone.

The Lisheen Mine was operated under an IPC licence issued by the EPA on 27th June 1997 to Minorco Lisheen Limited. Production at the mine ceased in 2015. All closure works have been completed at the site, following two years of Active Closure and three years of Passive Closure, the mine transitioned to Aftercare in June 2021. There have been several amendments to the licence since 1997 via the Technical Amendment ('TA') process. The extent of the land currently under IPC licence (P0088-04 [1]) are shown in Figure 1-3. The Site is outside the Vedanta IPC Licence boundary as defined in Technical Amendment A to the IPC Licence P0088-04 dated 2nd April 2020 [2].

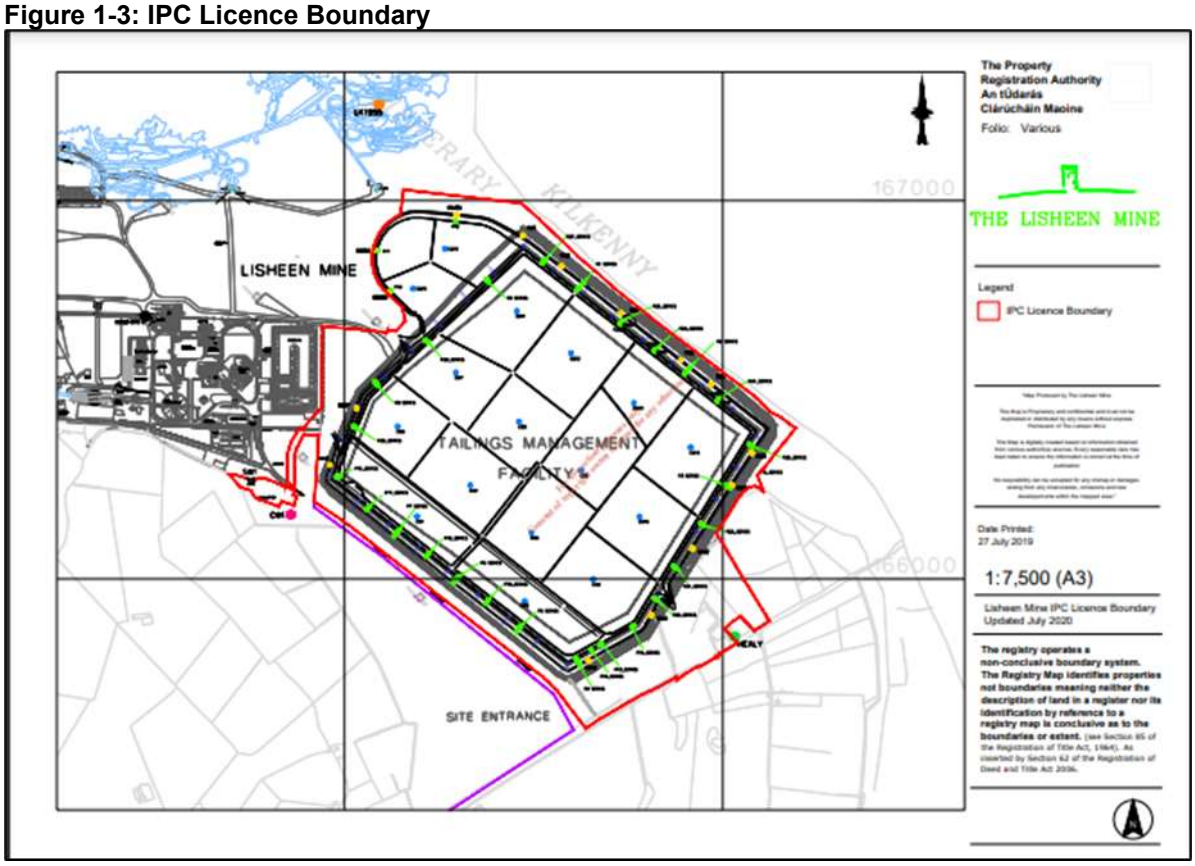
The EPA has independently signed off on the condition of the Site. The Agency are legally bound under Section 95(7) of the Environmental Protection Agency Act 1992, as amended, to ensure that they are:

> *'…satisfied that the condition of the relevant installation is not causing or likely to cause environmental pollution and the site of the activity is in a satisfactory state, it shall accept the surrender of the licence or revised licence, but otherwise shall refuse to accept the surrender of the licence or revised licence.'*

As part of the process to remove the Site from the Vedanta Licence, the EPA undertook an exit audit of the Vedanta lands. The overall audit finding was as follows.

> *"The condition of those surface areas of the site proposed to be excluded from the licence (identified as 'Stage 2' areas) were assessed and it was the opinion of the inspector that those areas were in a satisfactory state on the day of the visit. Based on this and on the information supplied by the licensee (in particular - the final 'Validation Report in Respect of Lisheen Mine' updated and submitted under licensee return LR036661 on 11/09/2018), those 'Stage 2' areas were considered unlikely to cause environmental pollution or to contain any potentially polluting residues."* [6].

Figure 1-3: IPC Licence Boundary



Obtaining formal sign-off on the Site by an independent third party, such as the EPA, is very important, as it provides reassurance in relation to the condition of the Site. The EPA legally could not have removed the Site from the Vedanta licence unless they were satisfied that the lands were in a satisfactory condition.

1.4.2 National Bioeconomy Campus

The Site forms part of the National Bioeconomy campus. A key objective of the Tipperary County Development Plan 2022-2028 ('TCDP') is to facilitate and support the development of the National Bioeconomy Campus at Lisheen, Co. Tipperary. The development of the bioeconomy campus at Lisheen will be plan-led with a masterplan to be put in place. Synergies between the proposed campus and Thurles town will be identified at the Local Area Plan ('LAP') stage [3].

The TCDP provides the Irish Bioeconomy Foundation ('IBF') with a range of stakeholders, including universities and private enterprises and is supported through Enterprise Ireland. The campus will have a range of facilities that will enable industry entrepreneurs and researchers to scale technologies that convert Ireland's natural resources (including residues) to products of high value for use in a wide variety of sectors, including food ingredients, feed ingredients, pharmaceuticals, natural chemicals, biodegradable plastics and more.

The IBF is set to expand its operations due to a grant award from the European Union's Just Transition Fund. The new funding will help facilitate the scale-up and demonstration of novel biotechnological approaches for biomanufacturing at the site.

While the previous activity at the mine resulted in high energy usage, the transformed bioeconomy campus is all about circularity and sustainability. The National Bioeconomy Campus currently consists of the following enterprises:

- Revive Environmental;

- Naring-Tech Limited;
- Lisheen Wind Farms;
- Acorn Recycling;
- Soleirtricity Lisheen; and,
- Tipperary County Council.

It is an objective of the LAP to promote and support the growth and development of the National Bioeconomy Campus as an important employment location with strong ties, maximising its residential and employment potential.

The bioeconomy is the part of the economy that uses renewable resources while reducing waste, supporting the achievement of a sustainable and climate-neutral society.

In developing the design and this planning application, the Applicant has engaged extensively with the IBF to ensure the Proposed Development meets the criteria for the National Bioeconomy Campus. Through collaborative engagement and ongoing communication, Soleirtricity will seek to build positive relationships in the community and secure strong support for this transformative project for the regions. These relationships will also benefit and support the economy and locality near Lisheen by creating attractive job opportunities.

1.4.3 The Lisheen Wind Farm

The Lisheen Wind Farm became operational in August 2009, with eighteen wind turbines erected across the former Lisheen Mine complex, with another 24 wind turbines neighbouring the Site, all of which connect to the Lisheen 110kV ESB substation.

These turbines are currently maintained and operated by Brookfield Renewable. The lands are leased from Lisheen Mine, on which the turbines and other infrastructure necessary for the operation of the Wind Farm are located. The current owners of these wind farms have access rights to all these turbines. However, this access requirement is not considered to be a constraint on the Proposed Development.

The presence of these wind turbines will help to reinforce the Site's position as a green campus, promoting the use of sustainable energy sources.

1.5 Regulatory Context

The following guidance documents were adhered to for the preparation of this AA report:

- OPR Practice Note PN01, *Appropriate Assessment for Screening for Development Management,* The Office of the Planning Regulator [4];
- *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 [5];
- *Guidelines for Ecological Impact Assessment in the UK and Ireland*, Chartered Institute of Ecology and Environmental Management [6];
- *Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC,* European Commission [7];
- *Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities*, DoEGLH [8]; and,
- *Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10*, DoEHLG [9].

This AA was prepared in accordance with and in compliance with the following legislation:

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna, better known as 'The Habitats Directive'. The Habitats Directive provides the legal framework for the protection of habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. The Habitats Directive was transposed into Irish law by the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 / 2011) (as amended) [10].

For completeness, the Planning and Development Act 2000 (as amended) states that "*European site*" means a site with one of the following designations:

a. Site of Community Importance ('SCI');
b. Candidate site of Community Importance ('cSCI');
c. Special Area of Conservation ('SAC');
d. Candidate Special Area of Conservation ('cSAC'); or
e. Special Protection Area ('SPA').

SACs are designated under the Habitats Directive, while SPAs are designated under the Conservation of Wild Birds Directive (79/409/EEC as amended 2009/149/EC) (better known as "The Birds Directive"). The Birds Directive was transposed into Irish law through the Planning and Development Act 2000 (as amended) and S.I 477 / 2011 [10].

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment.

> *"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication 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".*

1.5.1 The Mitigation Hierarchy

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the planning stage and designing the project in order to avoid such impacts. Second, if necessary, mitigation measures should be applied during the AA process to the point where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, it must be rejected unless it follows the process established under Article 6(4). If the project is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effects.

1.6 Stages of Appropriate Assessment

There are four distinct stages to undertaking an AA, as outlined in the current European Union ('EU') and Department of Environment, Heritage and Local Government ('DoEHLG') guidance [5] [8]:

Stage 1: Screening

This process identifies the potential impacts of a plan or project on European sites, either alone or in combination with other plans and projects and considers whether these impacts are likely to be significant. If potentially significant impacts are identified, the plan or project cannot be screened out of formal assessment and must proceed to Stage 2**.**

Stage 2: Appropriate Assessment

Where potentially significant impacts are identified, an assessment of the potential mitigation of those impacts is required. This stage considers the appropriateness of those mitigation measures in the context of maintaining the integrity of the European sites. If potential significant impacts cannot be eliminated with appropriate mitigation measures, the assessment must proceed to Stage 3.

Stage 3: Assessment of Alternative Solutions

This process examines alternative ways to achieve the objectives of the plan or project that avoid adverse impacts on the integrity of the European sites (if mitigation measures are deemed insufficient).

Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)

Where no practical alternative exists, this stage examines whether there are Imperative Reasons of Overriding Public Interest ('IROPI') that would mean the plan or project should still proceed despite adverse impacts remaining. Projects that fall under IROPI will require an assessment of compensatory measures. If there are no IROPI or if compensation is not feasible, the project or plan cannot proceed.

2 SCREENING FOR APPROPRIATE ASSESSMENT

Screening determines whether AA is necessary by examining the following:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with, or necessary to, the management of a European site; or
2. Whether the project will have a potentially significant effect on a European site, either alone or in combination with other projects or plans, in view of the site's conservation objectives.

Screening involves the following elements:

i) Description of a plan or project;

ii) Identification of relevant European sites and compilation of information on their qualifying interests and conservation objectives;

iii) Assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study, field survey or primary research as necessary; and,

iv) The production of a Screening Statement with conclusions.

2.1 Methodology

2.1.1 Determining Zone of Influence ('ZoI')

The starting point for this assessment was to determine the ZoI. The ZoI comprises the geographic area in which the Proposed Development may potentially affect the conservation objectives (or qualifying interests) of a European site.

Guidance in AA of plans and projects in Ireland notes that a buffer distance of 15km from the location of the development site being assessed is recommended for the identification of relevant European sites [8]. However, guidance from the National Parks and Wildlife Service ('NPWS') recommends that the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects (cumulative) [9]. For some projects, the distance could be greater than 15km, and in some cases, less than 100m.

Defining the ZoI for the Proposed Development includes evaluating the following:

- Identification of the European sites that are situated within, in close vicinity, or downstream within the zone of influence of the Proposed Development;
- Identification of the designated habitats and species and Conservation Objectives for the identified European sites;
- Identification of the environmental conditions that stabilise and increase the qualifying interests of the European sites towards favourable conservation status;
- Identification of the threats / impacts – actual or potential that could negatively impact the conservation objectives for the European sites;
- Identifying the activities of the proposed works that could give rise to significant adverse impacts; and,
- Identification of other plans or projects for which in-combination impacts would likely have significant adverse effects.

2.1.2 Source-Pathway-Receptor Model

European sites are only at risk from significant effects where a source-pathway-receptor link exists between a proposed plan and European sites. This can take the form of a direct impact (e.g. where the Proposed Development is located within / in close vicinity to the boundary of a European site), or an indirect impact where impacts are outside of the European site but affect ecological receptors within it (e.g. impacts to water quality which can affect estuarine habitats at a large distance from the impact source).

The likely effects of the Proposed Development on any European site have been assessed using a source-pathway-receptor model [11, 12]. The model comprises the following:

- A *source*: Any potential impacts from the Proposed Development, e.g. the runoff of sediment / construction pollution;
- A *pathway*: The means or route by which a source can affect the ecological receptor; and,
- A *receptor*: The qualifying interests and / or special conservation interests of the European sites.

In order to establish the Zone of Influence of the Proposed Development, the likely key environmental impacts / changes associated with the Proposed Development were determined, having regard to the project characteristics set out in Section 3.3 of this report. The ZoI for various potential impact pathways are discussed in Section 4.1.

2.1.3 Desk-Based Studies

A desk-based review of information sources was completed, which included the following sources of information:

- Review of aerial maps of the Site and surrounding area;
- The NPWS website was consulted with regard to the most up-to-date details on conservation objectives for the European sites considered relevant to this screening assessment [13];
- The National Biodiversity Data Centre ('NBDC') website was consulted with regard to species distributions [14];
- The EPA Maps website was consulted to obtain details about watercourses in the vicinity of the Site [15]; and,
- The Tipperary County Council planning portal was consulted to obtain details about existing / proposed developments in the vicinity of the Site [16].

2.1.4 Field Survey

A Site walkover was undertaken on 1st May 2024 and on 19th September 2024 by a suitably qualified and experienced MOR Environmental ecologist. The purpose of the walkover was to carry out a habitat survey to assess the type, extent and quality of habitats present on the Site; and to identify the potential for those habitats to support other features of nature conservation importance, such as species afforded legal protection under either Irish or European legislation

An updated Site visit was undertaken on 19th December 2025.

The habitat survey was undertaken utilising the Heritage Council's – '*A Guide to Habitats in Ireland'* [17]. This is the standard habitat classification system used in Ireland and includes both a desk-based and field-based assessment.

2.1.4.1 Survey Limitations

No survey limitations were encountered.

3 SITE CONTEXT AND DESCRIPTION

The Site is ca. 2ha in size and situated in the townland of Killoran, North Tipperary, ca. 6.3km northwest of Urlingford and ca. 12.6km southeast of Templemore. The Site is accessed from the existing Lisheen Mine entrance via the L3201 road. The Site is in proximity to Junction 4 on the M8 (north of Urlingford) motorway and the R502 and R639 regional roads.

The Site is currently vacant and comprises predominantly of recolonising bare ground and areas of artificial surfaces. The existing Lisheen 110kV ESB substation is located immediately to the north of the Site. To the east, the Site is bounded by the former Tailing Management Facility and the Permitted Solar Development. To the west of the Site is a building currently occupied by Irish Bioeconomy Foundation personnel, recently acquired by Tipperary County Council. To the south of the Site are two buildings occupied by AQS Environmental Solutions personnel, along with associated carparking.

The surrounding wider area is a mix of the Lisheen Mine Windfarm and associated infrastructure, agricultural farmland and bogland currently harvested by Bord Na Móna.

3.1 Watercourses within the Vicinity of the Site

The Site is situated within the Suir Catchment [Catchment_ID: 16] and the Suir_SC_040 subcatchment [Subcatchment_ID: 16_21] [15].

As per EPA maps, there is one hydrological feature of note within close proximity of the Site: the Cooleeny stream.

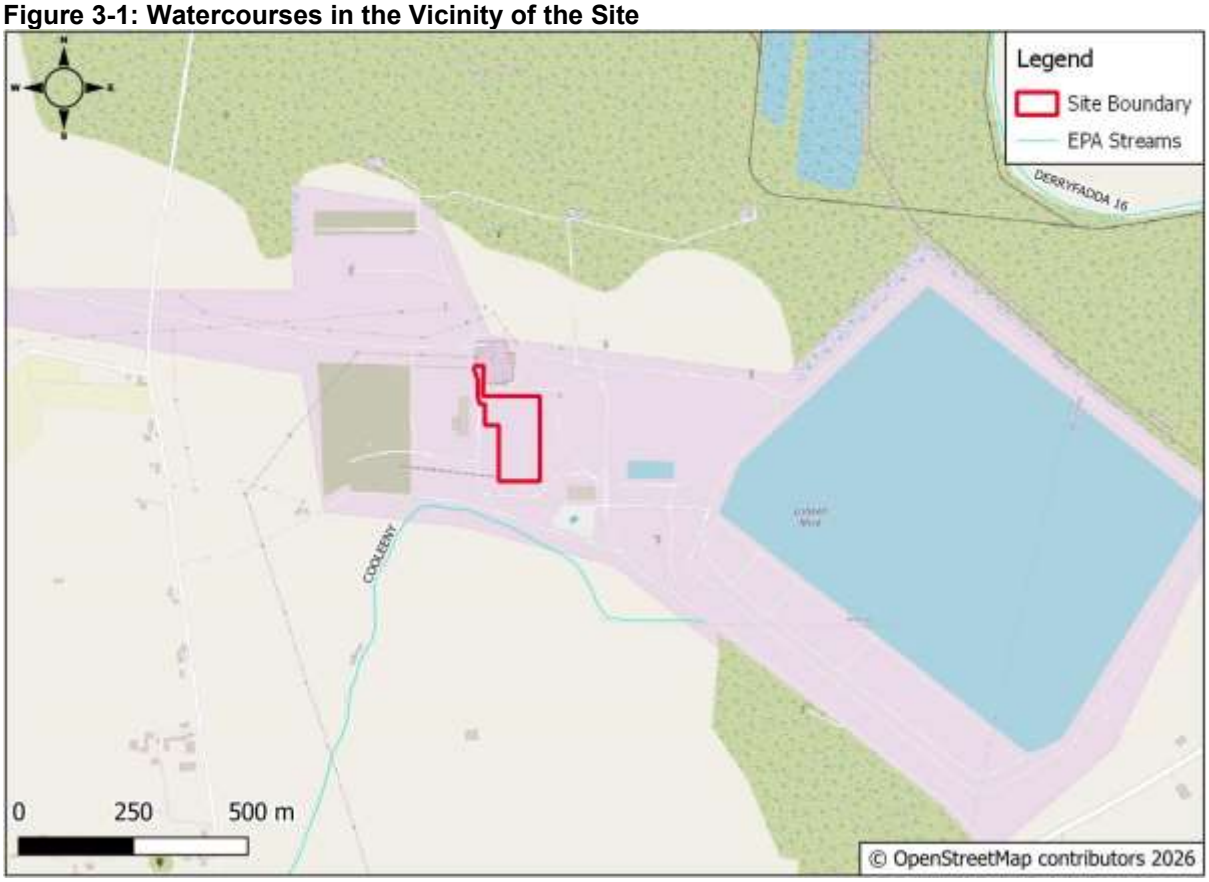
1. Cooleeny stream

The Cooleeny stream (IE_SE_16D020100) is located ca. 40m to the south of the Site, at its closest point. The stream flows in a southerly direction and is a tributary of the Cooleeny River, which it joins ca.1.6km downstream of the Site. The Cooleeny River continues in a southerly direction before joining the Drish 16 ca. 4km downstream of the Site. The Drish 16 continues to flow in a southwesterly direction before discharging into the River Suir, ca. 14km downstream of the Site. The River Suir forms part of the Lower River Suir Special Area of Conservation ('SAC').

Water Quality Status and Risk

Under the Water Framework Directive ('WFD') 2000/60/EC, the EPA classifies the status and the risk of not achieving good water quality status for all waterbodies in Ireland [18]. According to the river waterbody WFD 2019-2024, the most recent data available at the time of writing these reports, the status of the Cooleeny Stream is *'moderate'* [18]. In addition, this waterbody is considered to be *'at risk'* of not achieving a good water quality status [18]. The location of the key surface water features in the vicinity of the Site is illustrated in Figure 3-1.

Figure 3-1: Watercourses in the Vicinity of the Site



3.1.1 OPW Flood Maps

The Office of Public Works ('OPW') Flood Maps identifies Drainage Districts, Arterial Drainage Schemes and Benefited Areas. Arterial Drainage Schemes were works that were carried out under the Arterial Drainage Act, 1945, to improve land for agriculture and to mitigate flooding. The Benefited land identifies land that was drained as part of the Drainage District with the aim of improving land for agriculture and mitigating flooding.

The OPW did not identify any arterial drainage schemes or drainage districts on site, and the Site does not form part of the Benefitted Lands Scheme [19].

3.2 Drainage Ditches

During the Site walkover, no drainage ditches were identified.

3.3 National Barriers Programme

Irish rivers are heavily fragmented by weirs, dams, sluices, culverts, bridges and other artificial barriers. The National Barrier Programme ('NBP') has created a national database of potential barriers to fish passage (over 70,000) encompassing assessed structures which can impact on both fish passage and hydromorphology. For primary assessment, Inland Fisheries Ireland ('IFI') has developed the IFI Barrier Assessment and Screening Tool ('I-BAST') application as an initial screening and barriers assessment tool.

As per the National Barriers Programme Dataset, no barriers were identified within the watercourse outlined in section 3.2 above [20].

3.4 Consultation

3.4.1 An Coimisiún Pleanála

The Applicant entered into a pre-application consultation with ACP, as provided for in Section 182E of the Act.

On 28th October 2025, ACP served notice that it is of the opinion that the Proposed Development falls within the scope of Section 182A of the Planning and Development Act 2000, as amended, and has decided that the Proposed Development would be strategic infrastructure (ABP Ref: ABP-320834-24).

4 PROPOSED DEVELOPMENT

The Proposed Development will comprise:

- 1 no. 110kV tail-fed transmission substation; and,
- 110kV underground cable connecting the substation to the existing Lisheen 110kV ESB Substation.

4.1 110kV Substation

The Proposed Development will consist of a 10-year permission for a 110kV electrical substation and associated 110kV underground grid connection, cabling and associated works. The Proposed Development will transmit power from a solar farm (permitted under Tipperary County Council Reg. Ref: 21/1128), which will connect into the existing Lisheen 110kV ESB substation.

The proposed 110kV electrical substation in Killoran, on a site of 2ha will consist of:

a) 1 no. electrical substation compound and access road, palisade fencing and gates;

b) 1 no. electrical substation compound / IPP control building measuring 10.74m x 20.15m and 6.920m in height;

c) Station compound extension required at Lisheen 110kV station to facilitate the new Cooleeny 110kV cable bay;

d) 1 no. Eirgrid switch room building measuring 18m x 25m and 8.55m in height;

e) 1 no. lightning protection monopoles measuring up to 22m in height;

f) A main step-up transformer;

g) Associated ancillary equipment such as electrical apparatus, plant and equipment;

h) Overhead and underground electrical and communications cabling and ancillary works; and,

i) All associated ancillary works above and below ground, including raising a portion of the site by ca.1m using imported engineering fill.

This switchyard will be enclosed in a palisade-type security fence. The proposed 110kV substation will also have its own control building to house the indoor switchgear and control and protection equipment.

The Proposed 110kV Substation is required to coincide with the 76 MEC AC EirGrid Offer for the Permitted Development. This switchyard will be enclosed in a palisade-type security fence. The proposed 110kV substation will also have its own control building to house the indoor switchgear and control, and protection equipment.

The Proposed 110kV Substation is required to coincide with the 76 MEC AC EirGrid Offer for the Permitted Development.

<u>CCTV</u>

The on-site CCTV would be remotely monitored via a 24/7 operational team who would alert all relevant personnel in the event of a break-in or vandalism at the Site. The cameras will only be focused along the fence line and will not be focused on any residential properties.

<u>Fencing</u>

The switchyard will be enclosed in a palisade-type security fence. A perimeter fence will be installed to provide security and restrict access by wildlife.

Lighting

Emergency lighting will only occur as part of the Proposed Development.

4.1.1 110kV Underground Grid Connection

The 110kV underground cabling is proposed from the proposed 110kV substation to the existing Lisheen 110kV ESB substation, will consist of:

a) Ca. 225m of underground 110kV electrical cables and associated communications cables;

b) Three 125mm diameter HDPE power cable ducts;

c) One 100mm diameter HDPE communications ducts;

d) One 125mm diameter earth continuity duct to be installed in an excavated trench, typically 825mm wide by 1,315mm deep;

e) 1600sq mm Al cable;

f) 240sq mm copper earth continuity cable;

g) One fibre cable; and,

h) All associated ancillary works above and below ground.

The UGC will be installed in a cable trench as per industry standards, including ducting, fibre optic conductor, insulated earthing conductor where required, as well as link boxes at some jointing locations. The Energy Supply Board ('ESB') will ultimately be responsible for ensuring that the most appropriate connection option is selected. This asset, together with the substation, will be owned and operated by the Independent Power Producer ('IPP').

The Proposed Development layout is shown in Appendix 5-1.

4.1.2 Drainage

Surface Water Drainage

The Proposed Development will comprise limited hardstanding, confined to the substation building footprint and access tracks required to EirGrid specification. These elements will represent a small proportion of the overall Site area.

The majority of the surfaces onsite will remain permeable surfaces, allowing rainwater to percolate directly to the ground. As a result, surface water runoff will be minimal and comparable to existing baseline conditions.

Given the limited extent of impermeable surfaces, no specific surface water drainage infrastructure will be required for the Proposed Development. The development will not require any alteration to the existing on-site drainage regime, and surface water will continue to be managed through natural infiltration.

Foul Water

There will be no foul drainage connections required. During the Construction Phase, portable toilets will be provided at the temporary Contractors' Compound. All waste from the portable toilets will be removed and disposed of off-site by an approved contractor.

During the Operation Phase, the facility will be unoccupied for the majority of their service life. However, for design purposes, it was assumed that a maximum projected attendance at Site and in these buildings will be 2 to 3 people for one day every month.

The predicted irregular foul loading due to the sporadic occupancy of the buildings creates unsuitable conditions for a wastewater treatment system. It is proposed, therefore, to pipe the

foul water to a 5,000L tank for temporary holding storage. A maintenance agreement will be entered into with a suitably licensed waste contractor for periodic (3 months) emptying of this tank. The maximum predicted flow into the tank every 3 months is:

- 3 people x 100 l/person/day = 300 l/day.
- 300 (1 day every 4 weeks) x 12 weeks = 900 litres.

Therefore, a 5,000-litre tank that will be emptied every 3 months will provide ample capacity to store the foul water. There will be no foul water discharges arising from the Proposed Development.

4.1.3 Earthworks

The proposed 110kV substation will be developed on ca. 1ha within the overall ca. 2ha Site. These works will require the importation of engineering fill materials to raise site levels by ca. 1m over a total area of ca.17,668m^2 as follows:

- Proposed 110kV substation area measuring 10,191m^2; and,
- The extension over the fence area measuring 7,477m^2.

The detailed design will determine the extent of the earthworks required; however, it is known that the proposed 110kV substation will comprise a concrete foundation for the transformers and electrical equipment, with the rest of the area filled with crushed rock.

Any earthworks required for the Proposed UGC will be backfilled using suitable excavated material, with surface levels reinstated to match the surrounding ground profile.

The remainder of the Site is reserved for future expansion works, as specified by EirGrid. This identified expansion area is currently subject to seasonal groundwater emergence, which can result in localised flooding during periods of a high-water table. Should this area be developed in the future and required for operational use, ground levels would need to be raised by ca. 2m with suitable engineering fill materials. The required ground levelling works would not result in any adverse effects on surrounding land, drainage patterns and groundwater conditions, and would be fully integrated with the overall surface water management approach for the Site.

4.1.4 Site Access

The Site is well placed for national distribution and export. It is strategically located adjacent to the M8 motorway. A purpose-built 8km primary road connects the Site directly to the former N8 national road (now R639), which connects to the M8 motorway at Junction 4 (Urlingford) and Junction 6 (Horse and Jockey), midway between Dublin and Cork.

Construction Phase Access and Egress

The Site is accessed from the existing commercial Lisheen Mine entrance along the L5612 local road via the R502 regional road, which currently provides access for Lisheen Mine Complex. All Construction and Operational Phase access and egress will be via the existing access.

The existing entrance is wide and well-serviced and is capable of taking all the vehicle movements during the Construction Phase of the Proposed Development.

Internal Access

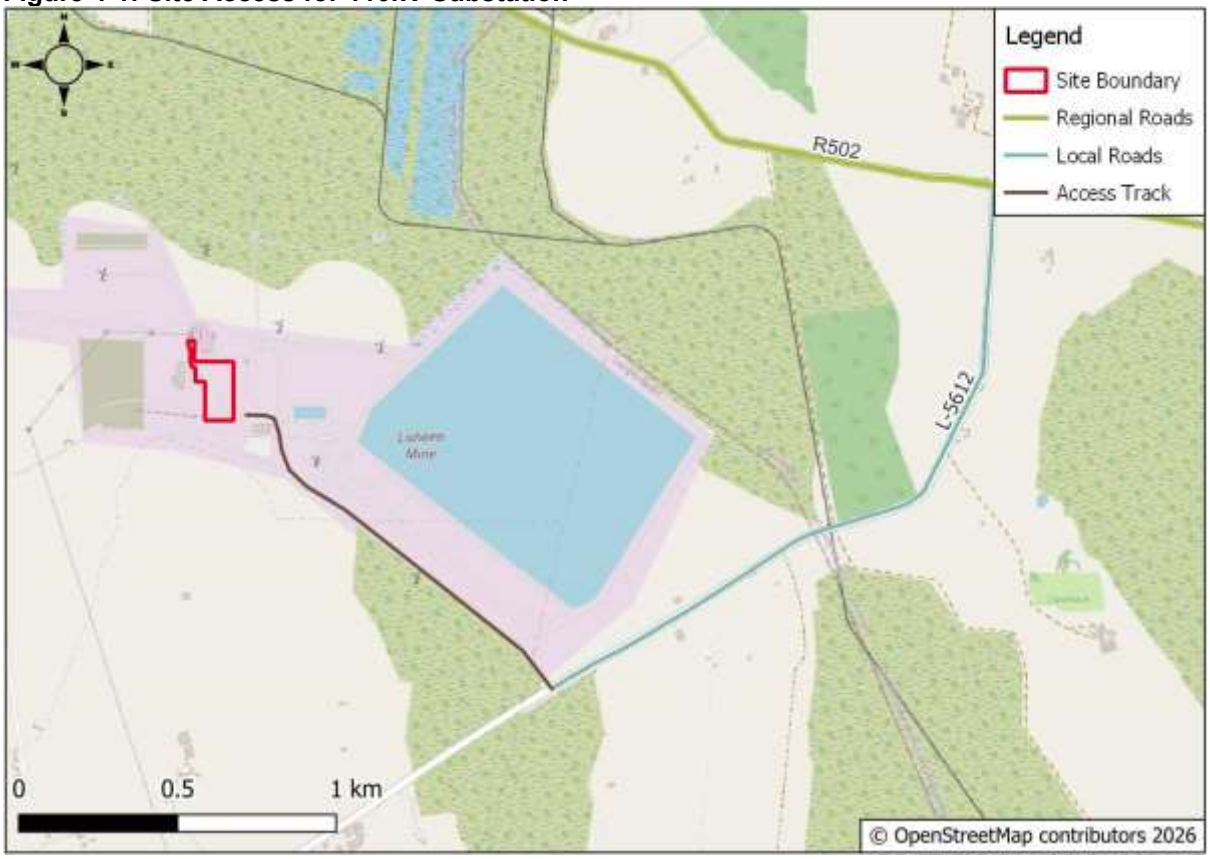
The construction of the Proposed Development will utilise the network of pre-existing hardcore tracks, which extend to all areas of the Site.

Operational Phase Access and Egress

All Operational Phase access and egress will be via the existing access.

All access and egress arrangements as detailed above were granted as part of the Permitted PV Development, and therefore the principle of use has already been established. It should also be noted that Transport Infrastructure Ireland ('TII') or the municipal district engineer had no objection to the access arrangement for the Permitted Development.

Figure 4-1: Site Access for 110kV Substation



4.1.5 Sightlines

All Site access and egress sightlines are in accordance with all sightline visibility requirements, as set out by the TII Design Manual for Roads and Bridges.

For vehicles entering the Site, the forward visibility in both directions is in excess of 150m, and for vehicles departing the Site, the forward visibility in both directions is in excess of 90m.

The L5612 provides adequate stopping Site distances and satisfies current standards; therefore, the Proposed Development will not significantly contribute to the risk to road users.

4.1.6 Security Fencing / Hoarding Fencing

The Site will be secured by palisade fencing and gates.

4.2 Specialist Ecological Input / Sensitive Design

Specialist ecological input was a key element of the design of the Proposed Development. This ensured that the design was sensitive to valued ecological features that occur or may

occur within the Site and the surrounding landscape. The key sensitive design measures are as follows:

- The Proposed Development will use the approved access arrangements as per the Permitted Development, which utilises the existing Lisheen Mine Complex access point;
- Buffers will be implemented and maintained throughout the lifecycle of the Proposed Development, including:
    - A >1km buffer between the Proposed Development; and any designated European site;
    - A >40m buffer between the Proposed Development and all EPA-designated watercourse;
    - A ca. 6m buffer between the Proposed Development and existing hedgerows / treelines; and,
    - A minimum ca. 200m buffer between likely acoustic emission infrastructure associated with the Proposed Development, and sensitive residential dwellings.

4.3 Construction Procedure

During the Construction Phase, the methods of working will comply with all relevant legislation and best-practice guidelines to reduce the environmental adverse effects of the works. Although Construction Phase adverse effects are generally of a short-term duration and are localised in nature, the adverse effects will be reduced as far as practicable through compliance with current construction industry guidelines.

It is proposed that there will be a single construction programme for the Permitted Development and the Proposed Development.

A Construction Environmental Management Plan ('CEMP') will be prepared and submitted to the planning authority by the appointed contractor in advance of works commencing at the Site. The pCEMP will be a 'living document', and the final CEMP will be issued by the appointed contractor prior to construction commencing. The following guidance will be referred to and will be followed during the Construction Phase of the project to prevent environmental pollution that may occur:

- C532 – Control of Water Pollution from Construction, Guidance for Consultants and Contractors [21];
- C811 - Environmental Good Practice on Site (5th edition) [22];
- C648 - Control of Water Pollution from Linear Construction Projects: Technical Guidance [23];
- Guidance for the Treatment of Otters Prior to the Construction of National Road Schemes [24];
- All works will be undertaken in accordance with the Inland Fisheries Ireland ('IFI') '*Requirements for the Protection of Fisheries Habitat during Construction and Development'* [25];
- The recommendations included within National Roads Authority ('NRA') Guidelines for the crossing of watercourses [26]; and,
- NRA, 'Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads' [27].

The following measures will be incorporated and adhered to in order to ensure that the proposed works will not result in any contravention of wildlife legislation:

- All activities will comply with all relevant legislation and best practice to reduce any potential environmental impacts. The measures detailed within this report will be fully adhered to;
- In advance of works, all Site personnel will receive an induction which will include reference to measures in relation to protected species and measures to prevent the spread of invasive species;
- Should construction works be required outside of daylight hours, the appointed project Ecological Clerk of Works ('ECoW') will be consulted as required; and,
- If protected or notable species are encountered during operations at the Proposed Development, the ECoW will be contacted for advice.

4.3.1 UGC Construction Methodology

The UGC ducts will be installed and the trench reinstated in accordance with the landowner's requirements, where installed on private lands. The installation of the electrical cabling / fibre cable will be pulled through in some sections. Construction methodologies to be implemented and materials to be used will ensure that the UGC is installed in accordance with the requirements of the Council and private landowners.

4.3.2 Hours of Work

Working hours will generally be restricted to between 08:00 and 20:00 hours Monday to Friday inclusive and between 08:00 and 18:00 hours on Saturdays. Construction work will not be permitted on Sundays, public holidays or at night-time except where safety concerns necessitate it or if agreed in advance with the Planning Authority.

4.3.3 Temporary Construction Compound

Given that the Overall Development will be constructed as a single construction project, the secure construction compound will be established in accordance with the arrangements approved under the Permitted Development. Tipperary County Council previously granted the construction compound permission as part of the Permitted Development, and no change to its location or extent is proposed.

All materials for the construction of the Proposed Development will be deployed and stored within a temporary construction compound. All equipment and materials unloaded in the construction compound would be distributed throughout the Site using smaller machines, such as bobcats, via a network of pre-existing hardcore tracks.

The Site Compound (including welfare areas) would be erected on existing hardstanding only. No earthworks or sub-surface disturbance will occur as part of these proposed facilities.

The compound will operate as a secure, designated area and will be located away from any drainage ditches, watercourses, or other sensitive environmental receptors. This arrangement will ensure that construction activities are appropriately managed and that potential risks to the surrounding environment are avoided.

4.3.4 Waste Management – Construction

- All excavated materials within the Site will be reused onsite, where possible. Excavated material from the UGC shall be employed to backfill the trench where appropriate, and any surplus material will be transported off-site and disposed of at a fully authorised soil recovery site;

- Waste materials will be collected and stored in suitable receptacles before they are taken off site;
- Waste materials will not be allowed to accumulate because of the fire / vermin risk; and,
- All wastes will be appropriately segregated with the objective of maximising the level of recycling.

4.3.5 Monitoring Works.

An ECoW will inspect the Site in advance of works commencing and will undertake Site inspections as required during the works to ensure that they are completed in line with the measures detailed within this AA, along with the Environmental Report and Construction Environmental Management Plan prepared as part of this planning submission to ensure compliance with all relevant wildlife legislation.

The ECoW will either deliver the site induction directly or provide the resident engineer with sufficient environmental information to ensure that a comprehensive site induction is delivered to all personnel working on-site.

4.4 Operational Procedures

Once operational, significant maintenance works will not be required. The Proposed Development will be an unmanned facility, which will be remotely monitored by way of CCTV. Any fault flagged on the control system will be inspected by maintenance personnel or dealt with remotely if possible. All systems onsite will be automated, with remote access provided to the control building.

The Proposed Development will require as low as one maintenance visit per month to undertake routine, non-intrusive maintenance tasks, such as Site inspection, cable and power plant checks and servicing. Only small vans / jeeps will be used to access the Site.

The transformer units will contain oil that will be bunded. Under normal operation, this oil is maintained within the system, and no emissions will occur. To prevent unforeseen impact on the environment, the transformer and step-up transformer units will be monitored and maintained.

4.4.1 Waste Management

There will be no operational waste associated with the Proposed Development, with the exception of the foul wastewater that will need to be removed periodically from the storage tank by a licensed contractor. The Decommissioning Plan, prepared as part of the overall planning application, addresses all aspects of waste management during the Operational Phase.

5 IDENTIFICATION OF EUROPEAN SITES

In accordance with the European Commission Methodological Guidance [28], a list of European sites that could be potentially affected by the Proposed Development has been compiled. Guidance for Planning Authorities prepared by the Department of Environment, Heritage and Local Government ('DEHLG') [8] states that defining the likely zone of influence for the screening of a project or plan, and the approach used will depend on the nature, size, location and the likely significant effects of the project / plan. The key variables determining whether or not a particular European site is likely to be affected by a project are:

- The physical distance from the Site to the European site;
- The presence of impact pathways;
- The sensitivities of the ecological receptors; and,
- The potential for in-combination effects.

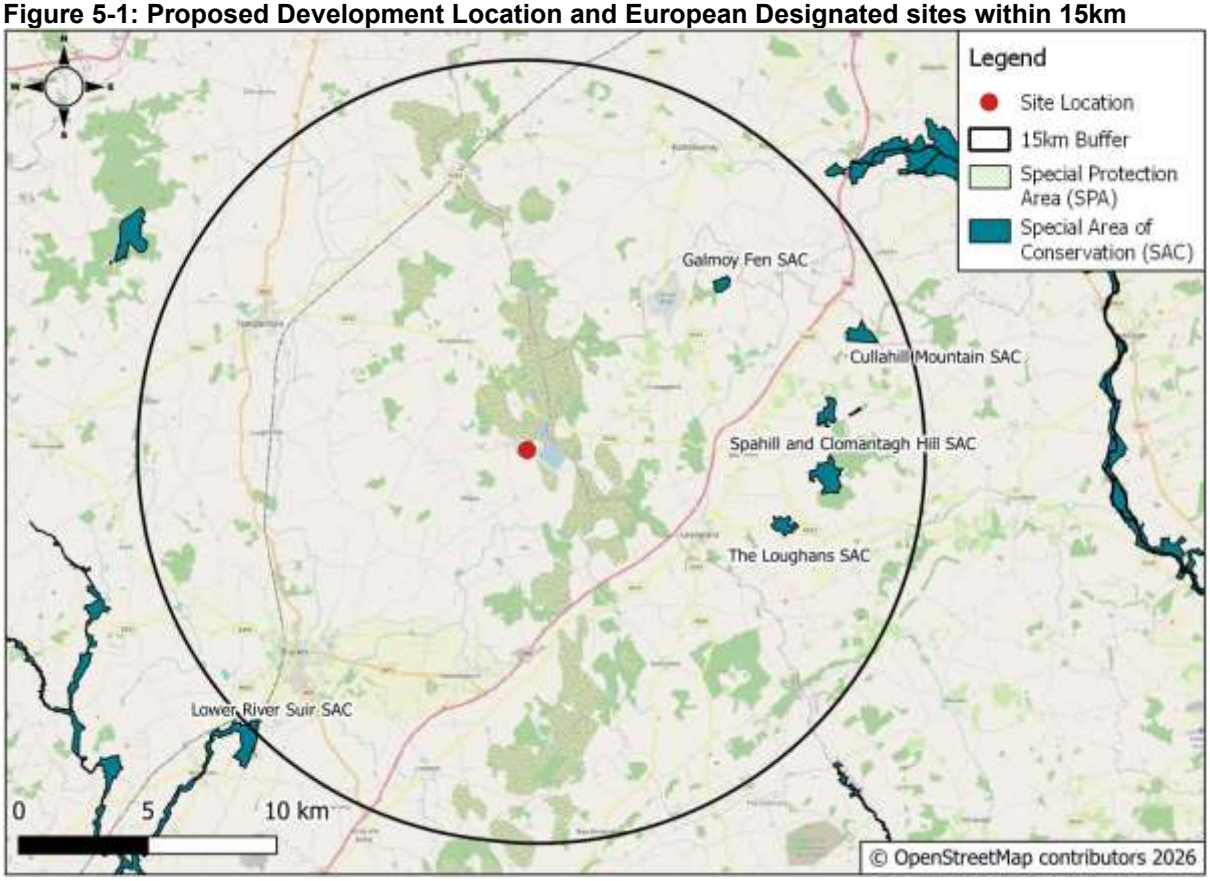
All SPAs and SACs within 15km have been considered to assess their ecological pathways and functional links. As acknowledged in the OPR guidelines [4], few projects have a zone of influence this large; however, the identification of European sites within 15km has become widely accepted as the starting point for the screening process.

There are six European sites located within 15km of the Site. These are shown in Figure 5-1 and listed in Table 5-1.

Table 5-1: European Sites within 15km of the Site

Site Name	Code	Distance (km)	Direction from the Site
Special Areas of Conservation ('SAC')			
Galmoy Fen SAC	001858	Ca. 9.4km	NE
Loughans SAC	000407	Ca. 9.4km	SE
Spahill and Clomantagh Hill SAC	000849	Ca. 10.5km	E
Cullahill Mountain SAC	000831	Ca. 12.8km	NE
Lower River Suir SAC	002137	Ca. 14km	SW

Figure 5-1: Proposed Development Location and European Designated sites within 15km



5.1 Identification of European Sites within ZoI

The ZoI comprises the area in which the Proposed Development may potentially affect the conservation objectives (or qualifying interests) of a European site. The definition of ZoI for the proposed works evaluated multiple factors as outlined in Section 2.1 and discussed below. Please note that the extent of ZoI differs for different environmental aspects, e.g. air, water, etc.

5.1.1 Habitat Loss / Degradation

The following section provides details of the field-based assessment that was undertaken for the Site on 1st May 2024, 19th September 2024 and 19th December 2025. A description of the habitats and features of ecological significance is outlined below and illustrated in Figure 5-2.

Recolonising Bare Ground (ED3)

The majority of the Site comprised recolonising bare ground habitat. The substrate size ranged from silt to gravel with some cobbles and boulders present.

The dominant species present was cock's-foot (*Dactylis glomerata*). Abundant species included common dandelion (*Taraxacum officinale*). Other species recorded within this habitat included red clover (*Trifolium pratense*), wild carrot (*Daucus carota*), yarrow (*Achillea millefolium*), gorse (*Ulex europaeus*), common tansy (*Tanacetum vulgare*), creeping thistle (*Cirsium arvense*), common ragwort (*Jacobaea vulgaris*), butterfly bush (*Buddleja davidii*), bull thistle (*Cirsium vulgare*), willowherb (*Epilobium* spp.), dyer's rocket (*Reseda luteola*), common mullein (*Verbascum thapsus*), common bramble (*Rubus fruticosus*) and common dogwood (*Cornus sanguinea*). There were also some immature grey willow (*Salix cinerea*) and basket willow (*Salix viminalis*) trees present.

Other Artificial Lakes and Ponds (FL8)

The proposed 110kV Substation will be developed on ca. 1ha within the overall ca. 2ha Site. This area was dry at the time of the survey and corresponds to the Recolonising Bare Ground habitat described above.

The remainder of the Site is reserved for future expansion works, as specified by EirGrid. This area has been subject to historical earthworks associated with the decommissioning of the former mine and the associated filling of the Tailings Pond located to the east of the Site. These excavation works reached a depth at which they intersected the high-water table, leading to seasonal groundwater emergence and the formation of temporary standing water during periods of high-water table.

During the survey on 19th December 2025, temporary areas of standing water were recorded within this section of the Site. The substrate in these areas comprises silt to gravel, with occasional cobbles and boulders. The areas of water varied in depth, ranging from 10-20cm in depth. These areas are considered artificial and ephemeral, reflecting altered ground conditions rather than natural standing waterbodies.

The species recorded included rushes (*Juncaceae* spp.) and grey willow (*Salix cinerea*). Other species present within this habitat included meadowsweet (*Filipendula ulmaria*), common water plantain (*Alisma plantago-aquatica*), purple-loosestrife (*Lythrum salicaria*), bulrush (*Typha latifolia*), creeping-jenny (*Lysimachia nummularia*), water-speedwell (*Veronica anagallis-aquatica*) and dogwood (*Cornus sanguinea*).

Earth banks (BL2)

Earth banks were present around the perimeter of the recolonising bare ground habitat. The earth banks were ca. 1m in height and ca. 2.5m in width. The species recorded within this habitat included grey willow and common dandelion (*Taraxacum officinale*). Cock's-foot (*Dactylis glomerata*) was an abundant species present. Other species recorded include gorse (*Ulex europaeus*), red clover (*Trifolium pratense*), common self-heal (*Prunella vulgaris*), creeping thistle (*Cirsium arvense*), common bramble (*Rubus fruticosus*), yarrow (*Achillea millefolium*), rushes (*Juncaceae* spp.), common ragwort (*Jacobaea vulgaris*), common daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*), creeping buttercup (*Ranunculus repens*), wild carrot (*Daucus carota*), butterfly bush (*Buddleja davidii*), common tansy (*Tanacetum vulgare*), bull thistle (*Cirsium vulgare*), basket willow (*Salix viminalis*), willowherb (*Epilobium* spp.) and common dogwood (*Cornus sanguinea*).

Buildings and Artificial Surfaces (BL3)

Artificial surfaces were recorded as minor roads serving the nearby businesses and the existing 110kV Lisheen substation. There were no species of note recorded within this habitat.

Figure 5-2: Habitat Map

The Site is not located in or adjacent to any European sites. No designated habitats were identified within or adjacent to the Site. Therefore, it is concluded that there will be no impacts associated with direct designated habitat loss or degradation as a result of the Proposed Development, given the distance separating the Site from the European sites.

5.1.2 Water Quality Impairment

Potential water quality impacts associated with the release of sediment and other pollutants to surface water during the Construction and Demolition Phase of the Proposed Development are possible. Therefore, the ZoI would be considered to include the receiving waterbodies adjacent to and downstream of the Site during the Construction Phase within 5km.

As outlined in Section 3.2, no direct hydrological connection was identified between the Site and any EPA watercourses, or between the Site and the European sites as listed in Table 5-1.

No hydrological connection was identified between the Galmoy Fen SAC, Loughans SAC, Spahill and Clomantagh Hill SAC or Cullahill Mountain SAC. Therefore, no impacts associated with water quality impairment as a result of the Proposed Development will occur on these European sites, given the lack of impact pathways.

As outlined in Section 3.1, the Cooleeny stream is located within 40m of the Site at its cosest point. The stream is a tributary of the River Drish and discharges into the River Suir 14km downstream of the Site. The River Suir forms part of the Lower River Suir SAC (see Figure 5-3), and there is therefore a potential hydrological connection between the Site and the Lower River Suir SAC. Therefore, there is potential that should pollutants flow from the Site into the river network, this could lead to the deterioration of local water quality and indirectly adversely affect the downstream food supply for designated species.

Figure 5-3: Hydrological Connection to the Lower River Suir SAC

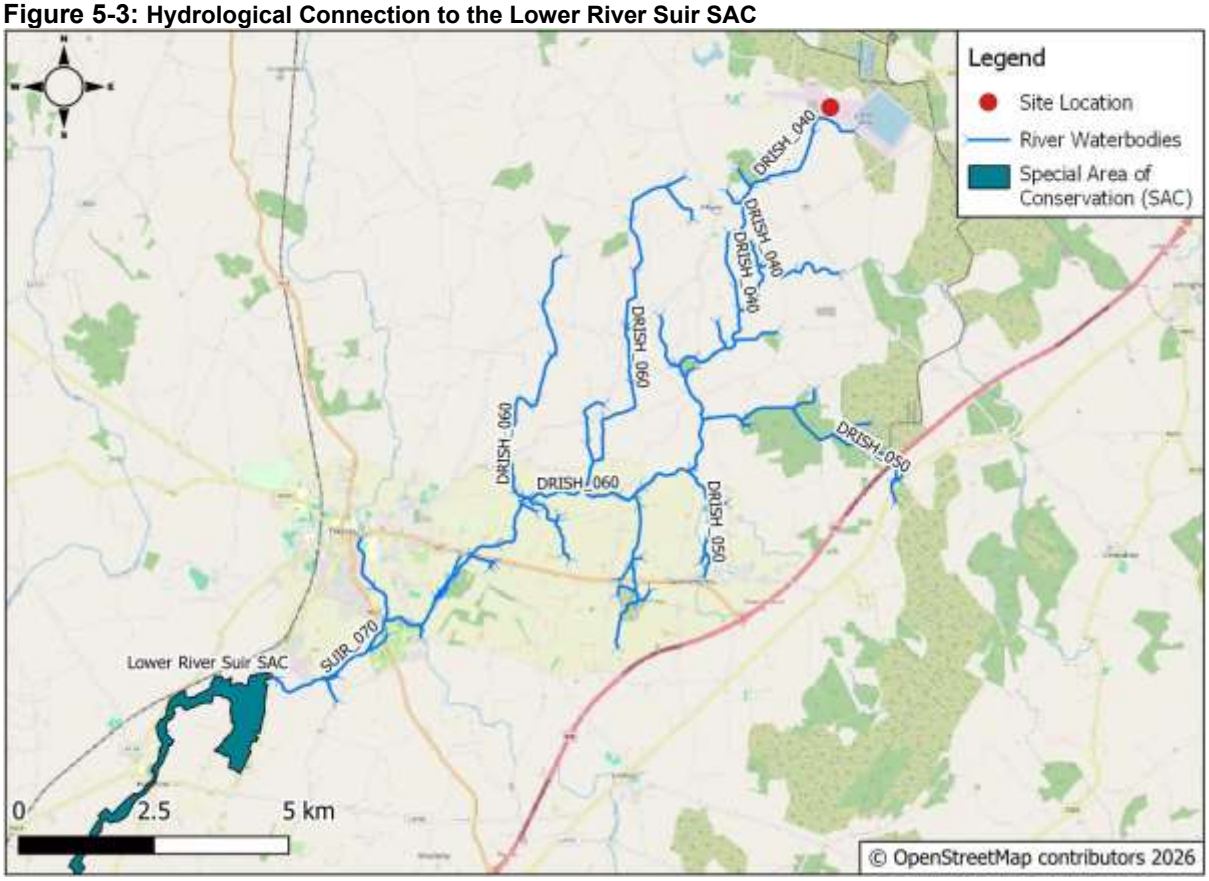


Table 5-2: European sites within 15km

Site Name	Hydrological Connection
Special Areas of Conservation ('SAC')	
Lower River Suir SAC	14km downstream
Galmoy Fen SAC	No direct hydrological connection
Loughans SAC	No direct hydrological connection
Spahill and Clomantagh Hill SAC	No direct hydrological connection
Cullahill Mountain SAC	No direct hydrological connection

However, it is considered highly unlikely that any suspended solids arising from the Proposed Development would reach the Cooleeny Stream. This is based on the following:

- All works will be confined to the Site;
- No in-river works will be undertaken;
- No direct discharges from the Proposed Development to any watercourse will occur during the Construction or Operational Phases;
- Localised construction works will occur; the majority of construction activities associated with the Proposed 110kV substation will be undertaken ca. 140m from Cooleeny Stream;
- There is no existing drainage connection in place that connects the Site to the Cooleeny Stream that could provide a conduit to the stream during construction activities;
- There will be an existing access road separating these works from the Cooleeny Stream. Therefore, providing for filtration of any silt/sediment surface water runoff should it occur;
- 23 additional tributaries are entering the watercourse prior to discharging into the Lower River Suir SAC, over a downstream distance of 14km. It is therefore considered highly unlikely that any potential pollutants will be diluted within the watercourse or that pollutants, such as sediment, will settle to the bottom of the watercourse.
- Based on the NBDC records checked on the 9th January 2026 [14], no records for designated species under the Lower River Suir SAC within 2km grid (S26C, S26D, S26E, S26H, S26I, S26J and S26X) of the Site within the last 10 years; and,
- Furthermore, species such as otter are highly mobile and therefore will move away from disturbances.

In addition, all works will be carried out in accordance with best practice guidelines. Appropriate measures in relation to the storage of fuels and other materials and general Site maintenance will be implemented on the Site, including the refuelling of vehicles, the addition of hydraulic oil / lubricants to vehicles and the storage of hazardous construction materials, which shall take place in designated bunded areas. Pollution control kits will also be maintained on the Site, and all Site personnel will be trained in their use and made aware of their location.

Taking the above into account, it can be objectively concluded that the Proposed Development will not result in any likely significant effects on the European Sites and their designated

habitats / species, without taking mitigation measures into account; as such, impacts associated with water quality impairment have been screened out from further consideration.

5.1.3 Air Quality Impairment

According to the Institute of Air Quality Management ('IAQM') Guidelines, potential adverse effects on ecological receptors as a result of dust arising from construction activities are most relevant within 50m of a construction site [29]. Other construction-related emissions, including vehicle exhaust emissions and emissions from plant and machinery, are typically short-term, localised and of low magnitude, and are therefore unlikely to result in significant effects on ecological receptors beyond the immediate vicinity of the site.

The closest European site is the Galmoy Fen SAC, which is located ca. 9.4km from the Site at its closest point and therefore a substantial distance from the Site. It can be concluded that the Proposed Development does not require a detailed dust assessment. On this basis, significant effects on European sites arising from impacts on air quality are highly unlikely, and air quality is therefore screened out of Appropriate Assessment.

5.1.4 Noise / Disturbance

Noise from activity during the Construction Phase has the potential to cause disturbance to qualifying species of the European sites.

Individual species will provoke different behavioural responses to disturbances at different distances from the source of disturbance.

- Transport Infrastructure Ireland (formally the National Roads Authority) has produced a series of best practice planning and construction guidelines for the treatment of certain protected mammal species (i.e. otter), which indicate that disturbance to terrestrial mammals would not extend beyond 150m [30]; and,
- Studies have noted that different avifaunal reactions characterise different types of disturbance stimuli; however, in general, a distance of 300m can be used to represent the maximum likely disturbance distance for waterfowl [31].

The ZoI for noise / disturbance is therefore established as the Site with a 300m buffer. All identified European sites are located well outside of this ZoI. Furthermore, there are no habitats present onsite which are suitable for any of the designated bird species, as the Site lacks appropriate nesting and foraging features.

However, as outlined in Section 3.1, the Cooleeny stream is located within 40m of the Site and is potentially hydrologically connected to the River Suir SAC, which supports otter as a qualifying interest. Otter are predominantly found in aquatic habitats along rivers and estuaries and have the ability to disperse from water. Female otter territories can be up to ca. 7.5km in length, and male otter territories can be up to ca. 13.2km in size [27]. Therefore, there is potential for this species to disperse outside of the SAC boundary and utilise the watercourses within proximity of the Site.

Notwithstanding this, it is considered highly unlikely that noise arising from the Proposed Development would result in disturbance to otters within the Cooleeny Stream or the wider receiving environment. This conclusion is based on the following:

- All works will be confined to the Site, which is entirely terrestrial and unsuitable for this species;
- No in-river works will be undertaken;
- The Lower River Suir SAC is located 14km from the Site;

- Based on the NBDC records checked on 9th January 2026 [14], no records for designated species under the Lower River Suir SAC within 2km grid (S26C, S26D, S26E, S26H, S26I, S26J and S26X) of the Site within the last 10 years; and,
- Furthermore, species such as otter are highly mobile and therefore will move away from disturbances.

Therefore, it can be concluded that no impacts associated with noise or disturbance will occur as a result of the Proposed Development, and the European sites have been scoped out for further consideration in relation to potential noise impacts.

5.1.5 Invasive Species

No high-impact invasive species (including those that are regulated under the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374/2024) [32] were recorded within the Site. Therefore, no impacts associated with the spread of invasive species as a result of the Proposed Development are anticipated.

5.2 ZoI Conclusion

The Site is not located within or directly adjacent to any European sites, and the nearest European site is located ca. 9.4km away from the Site.

Given the distance separating the Site from European Sites and the lack of impact pathways, it is considered that the Proposed Development will not result in significant effects to these European sites, and they have therefore been screened out from further consideration.

5.3 Conservation Objectives

European and national legislation places a collective obligation on Ireland and its citizens to maintain a favourable conservation status at candidate and European sites. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

According to the EU Habitats Directive, favourable conservation status of a habitat is achieved when the following conditions are met:

- Its natural range, and area it covers within that range, is stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable as defined below.

The favourable conservation status of a species is achieved when the following conditions are met:

- Population data on the species concerned indicate that it is maintaining itself;
- The natural range of the species is neither being reduced nor likely to be reduced for the foreseeable future; and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Conservation objectives for all identified European sites are as follows:

> *'To maintain or restore the favourable conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected.'*

6 SCREENING AND ASSESSMENT OF POTENTIAL EFFECTS

Using professional experience, guidance and judgement, the following factors have been taken into account in identifying potential significant impacts on the identified European sites:

- Distance from any European Site;
- Qualifying Interests;
- Special Conservation Interests;
- Conservation Objectives;
- The nature of the onsite habitats;
- The location of the Site; and,
- The scale and disturbance of the Proposed Development.

Based on these factors, **no potential significant impact has been taken forward for further consideration**. This is based on the available information from the field and desk-based assessment as outlined in Section 4.

Overall, the screening exercise **did not identify any other factors** that could result in any direct or indirect loss or disturbance to any of the Annex I habitats or Annex I or II species for which the European sites are designated. It can be stated that the Proposed Development will not cause:

- Any reduction in the area of the habitat or European Site;
- Direct or indirect damage to the physical quality of the environment of any European Site;
- Any serious or ongoing disturbance to species or habitats for which any European Site is designated; or,
- Direct or indirect damage to the size, characteristics or reproductive ability of populations at any European Site.

On the basis of the Source-Pathway-Receptor ('SPR') risk assessment principle, there is no ecological or functional link between the Proposed Development and any European sites.

6.1 Analysis of 'In-Combination' Effects

The Habitats Directive requires competent authorities to make an appropriate assessment of any plan or project which is likely to have a significant effect alone or in-combination with other plans and projects.

As described above, the proposed work alone is unlikely to have any direct or indirect adverse effects on any of the European sites located within 15km of the Site.

A review of the Tipperary County Council eplan websites highlighted the following planning applications listed in Table 5-1 are currently listed on the planning system, all of which are located in the immediate vicinity of the site boundary.

Table 6-1: Planning Applications within the vicinity of the Site

Application Ref	Planning Status	Development Description	Documentation Submitted
211128	Final Grant Received	*construction of a Solar PV development with a maximum export capacity (MEC) of up to*	Stage 1 Appropriate Assessment Screening was completed.

Application Ref	Planning Status	Development Description	Documentation Submitted
		122MW comprising of ca. 214,800 no. photovoltaic panels laid out in arrays, the construction of a 38kV substation, (ca.57.31m2 x 4.45m tall) along with associated ancillary development including 30 no. Transformer Stations (ca. 7.27m2 x 2.6m) with an integrated bund, 716 string Inverters, 1 no. DNO Substation Building (16.28m2 x 5.42m), 1 No. Storage and maintenance building (ca. 57.31m2 x 4.45m tall), 38 no. CCTV cameras mounted on ca. 3.8m high poles, perimeter security fenching and all ancillary works, the total development area will be ca. 77ha.	Progression to Stage 2 Natura Impact Statement was not considered necessary.
2460978	Final Grant Recieved	*'A state-of-the-art healthcare waste treatment and recycling facility and a waste transfer station. The development will include the construction of 3 no. buildings; Building 1 (total gross floor area of circa (ca.) 2,242m2 and ca. 9m tall), Building 2 (total gross floor area of ca. 229m2 and ca. 6m tall) and Building 3 (total gross floor area of ca. 68m2 and ca. 4m tall) along with associated ancillary development including rooftop solar photovoltaic panels, 1no. battery energy storage system (total gross floor area of ca. 34m2 x 2m tall) and inverter, onsite tank with bunding, vehicle parking, rainwater harvesting tank, surface water retention ponds, firewater retention pond, firewater storage pillow tank, an on-site wastewater treatment system and associated polishing filter bed percolation area, dedicated container storage yard for the temporary storage of container units, signage, landscaping, perimeter security fencing and all ancillary works. The total development area will be ca. 3.75 hectares(ha). The development will intake ca. 10,000 tonnes per annum of healthcare waste for treatment and recycling and an additional*	Stage 1 Appropriate Assessment Screening was completed. Progression to Stage 2 Natura Impact Statement was not considered necessary.

Application Ref	Planning Status	Development Description	Documentation Submitted
		ca. 15,000 tonnes per annum of hazardous waste will be accepted, temporarily stored, handled and consolidated onsite for onward transfer - an EIAR has been submitted with the application.'	
Tipperary County Council Planning Ref: 2460936	Final Grant Received	*'Construction of an anaerobic digestion plant comprising: 4 no. primary digester tanks (each measuring c. 7.6 m in height); 3 no. secondary digester tanks (each measuring c. 14.5 m in height); 4 no. feed hoppers; 4 no. technical rooms (ranging in size from c. 35 sq m to c. 95 sq m GFA); 2 no. biogas conditioning units; process, storage and buffer tanks (comprising: 1 no. buffer digestate storage tank (c. 7.5 m in height), 1 no. suspension buffer tank (c. 8 m in height), 1 no. process area runoff storage tank (c. 4.5 m in height); 1 no. buffer digestate process tank (c. 4.5 m in height), 1 no. treated digestate liquids recycle storage tank (c. 4.5 m in height); 1 no. roofed liquids feed-mix tank (c. 3 m in height)); these components will be located within a containment bund constructed c. 3 m below ground level. The proposed development will also consist of: feedstock storage (comprising 3 no. storage clamps (c. 1,050 sq m in area each) and 2 no. storage sheds (c. 500 sq m GFA each)); a biomethane upgrading plant (including natural gas compression unit); a biomethane loading facility (comprising 4 no. loading bays with associated gates and safety features measuring c. 490 sq m in area); a biomass boiler with its associated pellet storage silo (c. 12.5 m in height); Combined Heat and Power (CHP) plant and associated heat exchanger; a single storey bio-based fertiliser processing and storage unit (c. 3,890 sq m GFA) (including digestate dewatering plant, fertiliser pasteurisation plant*	Stage 2 Appropriate Assessment – Natura Impact Statement was submitted and concluded; *'Regarding the precautionary principle, and in consideration of the above information set out in this report, it can be concluded that the proposed project will not result in the loss of ecologically significant habitats or species and will not have any significant effects on the wider ecology in the surrounding area.'*

Application Ref	Planning Status	Development Description	Documentation Submitted
		and bio-based fertiliser loading facilities); a single storey office building (c. 105 sq m GFA) (including offices, meeting room, control room, laboratory, welfare facilities, storeroom and a first-aid facility); bin storage; 9 no. car parking spaces (including 5 no. standard parking spaces, 2 no. electric vehicle (EV) spaces and 1 no. accessible car parking space); electric vehicle (EV) charging infrastructure; 10 no. bicycle parking spaces; vehicular, cyclist and pedestrian access / egress and associated circulation routes; 2 no. weighbridges; a vehicle steam wash area; fuel storage tank and associated bund; an emergency flare (c. 7.6 m in height); a process area runoff lagoon; an attenuation pond; an ESB sub-station; boundary treatments [including gates, piers and fencing]; site lighting; all hard and soft landscaping; provision of sustainable urban drainage systems (SUDS); and all other associated site excavation, infrastructural and all other associated site excavation, infrastructural and site development works above and below ground, including changes in level and associated retaining features, and associated site servicing [water and electricity supply]. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted with the application.'	
2360281	Final Grant Recieved	*'Development consisting of Workshop Building (1242m2), Truck Washout Building (64m2), commercial yard area, new boundary fence and entrance gates, an on-site Wastewater Treatment System and associated polishing filter bed percolation area, attenuation tank, bored well & water storage tank, rainwater harvesting tank, emergency storage tank, solar panels to roof of existing building and all*	Stage 2 Appropriate Assessment – Natura Impact Statement was submitted and concluded; *'Following an examination, analysis and evaluation of the relevant information, including the nature of the predicted impacts from the Proposed Development and all associated works, it has*

Application Ref	Planning Status	Development Description	Documentation Submitted
		associated siteworks - application is accompanied by an NIS'.	*been objectively concluded that with the implementation of the proposed mitigation measures, the Proposed Development will not, either alone or in combination with other plans or projects, adversely affect the integrity or conservation status of any of the qualifying interests of the Lower River Suir SAC or any other European site in light of best scientific knowledge. No reasonable scientific doubt exists in relation to this conclusion.* *Accordingly, progression to Stage 3 of the Appropriate Assessment process (i.e., Assessment of Alternatives Solutions) is not considered necessary.'*
Tipperary County Council Planning Ref: 20129	Decision: Conditional – 13/02/2020	*'A 10 year planning permission for modifications to Condition No. 1 of previously granted planning permission Ref. No. 18/601296. The modifications comprise an outfall drain and associated pumping station and monitoring chambers to discharge surface water and treated waste water from the Biorefinery site through the townlands of Cooleeny and Derryfadda to the Drish River; a water supply pumphouse and associated site works including access road and security fencing in the townland of Derryville and a water supply pipeline from the pumphouse to the Biorefinery facility site. A Natura Impact Statement (NIS) will accompany the application. This application relates to development which comprises or is for the purpose of an activity requiring an Industrial Emissions Licence.'*	Stage 2 Appropriate Assessment – Natura Impact Statement was submitted and concluded; *'It can be concluded that the proposed modifications and all associated site works, alone or in-combination with other projects, will not adversely affect the integrity, and conservation status of any of the qualifying interests of the Lower River Suir SAC.* *Accordingly, progression to Stage 3 pf the Appropriate Assessment process (i.e. Assessment of Alternative Solutions) is not considered necessary.'*

Application Ref	Planning Status	Development Description	Documentation Submitted
Tipperary County Council Planning Ref: 18601296	Final Grant Recieved	*'A biorefinery facility comprising of a process building with processing areas, plant rooms, stores, personnel & administrative areas; external bunded process & storage areas; vessels and tanks; CHP plant; an effluent & water treatment plant which includes bunded tanks & a building; sewage treatment plant; water storage tanks & site development works including demolition of an existing electrical building, roads, paved areas, parking areas, drains and services, bore well, lighting, fire water retention tank, attenuation pond, site fencing, alterations to the discharge pipeline from the sewage treatment plant, weighbridges & weighbridge office, connection to an existing outfall pipeline and landscaping works. The application is accompanied by an Environmental Impact Assessment Report. This application relates to development which comprises or is for the purpose of an activity requiring an Integrated Pollution Prevention and Control Licence'*	.Stage 1 Appropriate Assessment Screening was completed. Progression to Stage 2 Natura Impact Statement was not considered necessary.

The projects listed in Table 5-1 comprise a number of permitted and/or consented developments within the wider area, each of which has been subject to AA and, where required, the preparation of a Natura Impact Statement ('NIS').

In all cases, the respective assessments concluded that the developments, alone and in combination with other plans or projects, would not adversely affect the integrity or conservation objectives of the Lower River Suir SAC, including its qualifying interests.

Given that these projects have already been robustly assessed and concluded to have no adverse effects on European sites, it is considered that the Proposed Development will not result in any in-combination effects on any European sites in the context of the existing infrastructure and associated activities taking place at the Site. This statement is supported by:

I. The location of the Site within the National Bioeconomy Campus, an area expressly planned for strategic development;

II. The localised nature of the Proposed Development, with any impacts confined to the Site boundary;

III. The distances and intervening lands separating the Site from European sites, which preclude direct or indirect pathways for cumulative effects; and,

IV. The implementation of best practice guidelines that will be implemented during the Construction and Operational Phase of the Proposed Development, which will ensure that any potential effects are avoided or minimised at source.

Taking the above into account, it is concluded that there will not be any significant in-combination contribution by the Proposed Development to possible adverse effects on any European sites.

7 SCREENING CONCLUSIONS AND STATEMENT

The screening process has examined the details of the Proposed Development and has considered the potential for causing adverse effects on European sites and their qualifying features of interest within a 15km radius of the Site.

Five European sites are located within a 15km radius of the Site - The Lower River Shannon SAC, Galmoy Fen SAC, The Loughans SAC, Spahill and Clomantagh Hill SAC and the Cullahill Mountain SAC.

However, given the scale and localised nature of the Proposed Development and the lack of direct impact pathways between the Site and European sites, as described in Section 5 and Section 7, it can be concluded that the Proposed Development will not result in any significant impacts on the conservation objectives or status of the listed European sites and will not result in the direct loss or disturbance of any Annex I habitats and / or Annex II species for which the European sites are designated. It can be stated that the Proposed Development will not cause any of the following:

- Any reduction in the area of the habitat or European site;
- Direct or indirect damage to the physical quality of the environment of any European site;
- Any serious or ongoing disturbance to species or habitats for which any European site is designated; or,
- Direct or indirect damage to the size, characteristics or reproductive ability of populations of any European site.

Following an examination, analysis and evaluation of the relevant information, including the nature of the predicted impacts from the Proposed Development and all associated works, it has been objectively concluded that the Proposed Development will not, either alone or in combination with other plans or projects, adversely affect the integrity or conservation status of any of the qualifying interests of any identified European Site in light of best scientific knowledge. No reasonable scientific doubt exists in relation to this conclusion.

Accordingly, the progression to Stage 2 of the Appropriate Assessment process (i.e., preparation of a Natura Impact Statement) is not considered necessary.

8 REFERENCES

[1] EPA, Integrated Pollution Control Licence, 2014.

[2] EPA, “Technical Amandment A to Integrated Pollution Control Licence P0088-04,” EPA, 2020.

[3] Tipperary County Council, “The Thurles and Environs Local Area Plan 2024-2030,” 2024.

[4] OPR, “Appropriate Assessment Screening for Development Management,” 2021.

[5] EC, “Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC,” 2021.

[6] CIEEM, “Guidelines for Ecological Impact Assessment in the UK and Ireland (Terrestrial, Freshwater, Coastal and Marine), Version 1.2,” 2022.

[7] EC, “Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC,” European Commision, 2018.

[8] DoEHLG, “Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities.,” Department of Environment, Heritage and Local Government, 2010.

[9] DoEHLG, “Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10,” Department of Environment,Heritage and Local Government, 2010.

[10] Statutory Instruments, “S.I No. 477/2011 - European Communities (Bird and Natural Habitats) Regulations 2011,” European Commission, 2011.

[11] L. M. Cooper, “Guidelines for Cumulative Effects Assessment in SEA of plans.,” Imperial College London., 2004.

[12] OPW, “ArteriaDrainage Maintenance categories, Source » Pathway » Receptor Chains for Appropriate Assessment,” OPW, Galway, 2012.

[13] NPWS, “National Parks and Wildlife Service,” 2026. [Online]. Available: https://www.npws.ie.

[14] NBDC, “National Biodiveristy Live Maps,” 2026. [Online]. Available: http://maps.biodiversityireland.ie/.

[15] EPA, “EPA Map Viewer,” 2026. [Online]. Available: https://gis.epa.ie/EPAMaps/.

[16] TCC, "Tipperary County Council Planning Portal," 2026. [Online]. Available: https://www.eplanning.ie/TipperaryCC/searchtypes.

[17] J. A. Fossitt, A Guide to Habitats in Ireland, Dublin: The Heritage Council, 2000.

[18] EPA, "EPA Map Viewer," 2026. [Online]. Available: https://gis.epa.ie/EPAMaps/.

[19] OPW, "Flood Maps," [Online]. Available: http://www.floodinfo.ie/map/floodmaps/#. [Accessed 2025].

[20] Inland Fisheries Ireland, "National Barrriers Programme," [Online]. Available: https://www.fisheriesireland.ie/what-we-do/research/national-barriers-programme. [Accessed 2025].

[21] CIRIA, "CIRIA C532 Control of Water Pollution from Construction, Guidance for Consultants and Contractors," Construction Industry Research and Information Association , 2001.

[22] CIRIA, "C811- Environmental Good Practice on Site (5th edition)," London, 2023.

[23] CIRIA, "C648 - Control of Water Pollution from Linear Construction Projects Technical Guidance," 2006.

[24] NRA, "Guidelines for the Treatment of Otters prior to the Constrcution of National Road Schemes," National Roads Authority, 2006.

[25] IFI, "Guidance and Protection of Fisheries during Construction Works in an adjacent to Water," IFI, Dublin, 2016.

[26] National Roads Authority, "Guidelines for the Crosssing of Watercourses during the Constrcution of National Road Schemes," National Roads Authority, Dublin, 2005.

[27] NRA, "Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads," National Roads Authority, 2010.

[28] European Commission, "Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of articles 6(3) and (4) of the Habitats Directive 92/43/EEC.," Luxembourg: Office for official publications of the European Communities , 2002.

[29] IAQM, "Guidelines on the assessment of dust from demolition and construction," 2014.

[30] National Roads Authority, "Guidelines for the Treatment of Otters prior to the Constrcution of National Road Schemes," National Roads Authority, 2006.

[31] N. H. K. S. J. Cutts, "Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects," 2013.

[32] EC, "S.I. No. 374/2024 - European Union (Invasive Alien Species) Regulations 2024," European Union, 26 07 2024. [Online]. Available: https://www.irishstatutebook.ie/eli/2024/si/374/made/en/print.

[33] CIRIA, "C532 – Control of Water Pollution from Construction, Guidance for Consultants and Contractors," 2011.

[34] CIRIA, "C811 - Environmental Good Practice on Site (5th edition)," CIRIA, 2023.

[35] KCC, "Killkenny County Council Planning Portal," 2025. [Online]. Available: https://www.eplanning.ie/KilkennyCC/searchtypes.

[36] NPWS, "Lower River Suir SAC; Site Synopsis," National Parks and Wildlife Service, 2013.

[37] NBDC, "National Biodiveristy Live Maps," 2025. [Online]. Available: http://maps.biodiversityireland.ie/.

[38] NBDC, "National Biodiveristy Live Maps," 2022. [Online]. Available: http://maps.biodiversityireland.ie/.

[39] Transport Infrastructure Ireland, "Introduction to the NRA," National Roads Authority, Dublin, 2013.