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ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT FOR THE MONKSLAND PIPELINE (GAS TO GREENER IDEAS ATHLONE)

Report Prepared For
Gas Networks Ireland

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Our Reference
ST/237501.0294ES01

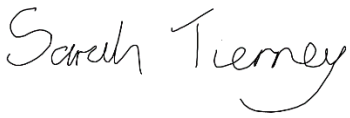
Date of Issue
2 September 2024

AWN Consulting Limited
Registered in Ireland No. 319812

Document History

Document Reference		Original Issue Date	
ST/237501.0294ES01		2 September 2024	
Revision Level	Revision Date	Description	Sections Affected
2	2 September	Client Reivew	All

Record of Approval

Details	Written by	Approved by
Signature		
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Date	2 September 2024	2 September 2024

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1.1 INTRODUCTION

On behalf of Gas Networks Ireland ('the Applicant'), AWN Consulting Limited ('AWN') has prepared this Environmental Impact Assessment (EIA) Screening Report in respect of the proposed Monksland Pipeline (Gas to Greener Ideas Athlone) project, located in County Roscommon. The proposed Pipeline (named 'Monksland' GNI asset number 'GNI138') is designed to connect the existing BGE/77 750mm Ories to Perssepark 'Pipe to the West' Pipeline to the permitted Monksland Above Ground Installation (AGI).

This report has been prepared in compliance with the relevant provisions of the Environmental Impact Assessment (EIA) Directive. The purpose of this EIA Screening Report is to provide the Commission for the Regulation of Utilities (CRU) information required under Annex IIA of the European Union Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU, to demonstrate the likely effects on the environment, having regard to the criteria set out in Annex III in order to determine whether the Proposed Development is to be subject to an environmental impact assessment.

1.2 OVERVIEW OF THE PROPOSED SCHEME

The proposed Monksland Pipeline (herein after named the 'Proposed Development') consists of a 200mm (Nominal Bore) underground transmission pipeline c. 2.488 km in length, hot tap connection (named 'Monksland Hot Tap'), and underground pigging station (pipeline inspection, cleaning, maintenance) located at the Monksland Hot Tap.

The Proposed Development working area (Figure 1.1, 1.2), is located in County Roscommon, is approximately 12.3 hectares that traverses the townlands of Crannagh, Crannagh Beg, Crannagh Mor, Keeloges, Keelty and Monksland, County Roscommon (hereinafter referred to as "the site"). The area is predominantly characterised by agricultural lands. The largest urban centre in the vicinity is Athlone town c. 2.5 km east of the proposed pipeline.

The characteristics of the Proposed Development are described in further detail in Section 2 and 3 of this report.

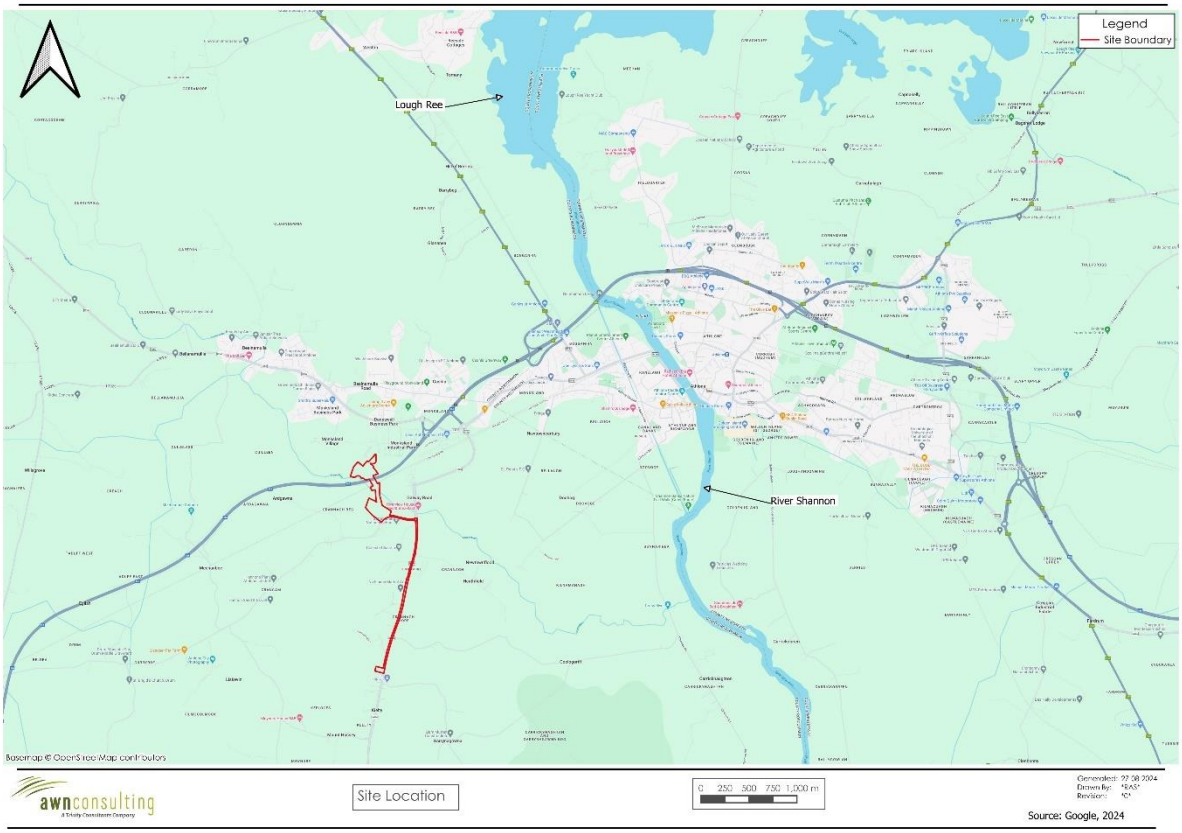

Figure 1.1 *Proposed Development Site Location (indicative projected reline boundary)*

Figure 1.2 *Proposed Development Local Scale (indicative projected reline boundary)*

1.3 LEGISLATION AND GUIDANCE

The legislation and guidance listed below has informed this report an EIA Screening:

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports. (2022). Environmental Protection Agency.
- Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021).
- European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018.
- Environmental Impact Assessment of Projects – Guidance on Screening. (2017). European Commission.
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. (August 2018). Department of Housing, Planning and Local Government.
- Advice Notes for preparing Environmental Impact Statements. (Draft, September 2015). Environmental Protection Agency.
- European Union Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU.
- Planning and Development Act, 2000 (as amended).
- Planning and Development Regulations 2001 (as amended).
- Gas Act 1976 (as amended)

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU.

Environmental Impact Assessment Directive Directive 2011/92/EU as amended by Directive 2014/52/EU

The Environmental Impact Assessment ("EIA") Directive has been codified under Directive 2011/92/EU as amended by Directive 2014/52/EU (the "EIA Directive"). The purpose of an EIA is to ensure a high level of protection for the environment and human health before any substantial public or private developments are undertaken. The EIA Directive achieves this by ensuring that projects which are likely to have 'significant effects' on the environment are subject to an assessment.

Article 2 of the EIA Directive requires Member States to adopt all measures necessary to ensure that, before development consent is given, projects likely to have significant effects on the environment by virtue of their nature, size or location are made subject to a requirement for development consent and environmental impact assessment. Article 4 of the EIA Directive defines the projects to which the obligation in Article 2 applies. For projects listed in Annex I of the EIA Directive, Member States are obliged to ensure they are made subject to an environmental impact assessment. For projects listed in Annex II of the EIA Directive, Member States are obliged to determine whether the project shall be made subject to environmental impact assessment and shall do so on a case-by-case examination, or through thresholds or criteria set by Member States, or both.

Article 4(3) of the EIA Directive provides that, where a case-by-case examination is carried out or thresholds or criteria are set, the relevant selection criteria in Annex III shall be taken into account. Further, Member States are permitted to set thresholds or criteria to determine when projects need not undergo either screening for environmental impact assessment or environmental impact assessment.

Annex I of the EIA Directive (as amended) lists the projects that must be subject to environmental impact assessment. For projects listed in Annex II of the EIA Directive (as amended), these projects should be subject to environmental impact assessment where it is determined that they are likely to have significant effects on the environment.

For projects listed in Annex II of the EIA Directive, Member States are obliged to determine whether the project shall be made subject to environmental impact assessment and shall do so on a case-by-case examination, or through thresholds or criteria set by Member States, or both.

Where EIA Screening is required, the developer is to provide information on the characteristics of the project and its likely significant effects on the environment. A detailed list of information to be provided is specified in Annex IIA of the EIA Directive. The relevant selection criteria to be considered when determining whether an EIAR is required is contained in Annex III to the EIA Directive.

The EIA Directive is transposed into Irish legislation by the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) as well as the Gas Act 1976 (as amended).

Gas Act 1976 as amended

The Monksland Pipeline (Gas to Greener Ideas Athlone) application is being made to the Commission for Regulation of Utilities (CRU) under Section 39A of the Gas Act 1976, as amended.

Section 40A of the Gas Act 1976 (as amended) defines the requirements for EIA for certain pipelines:

> *40A a) Where an application is made for consent under section 39A(1) … in respect of a proposed pipeline that is of a class referred to in Part 1 of Schedule 5 to the Planning and Development Regulations 2001 (S.I. No. 600 of 2001), the proposed pipeline shall be the subject of an environmental impact assessment and, accordingly—*
>
> > *(i) where that proposed pipeline is a pipeline other than an upstream pipeline, the Board or the other person making the application to the Commission for consent under section 39A(1) in respect of that pipeline, shall submit an environmental impact assessment report in respect of construction and operation of that proposed pipeline to the Commission together with the application…*
>
> *40A (b) Where an application is made for consent under section 39A(1) … in respect of a proposed pipeline that is of a class referred to in Part 2 of Schedule 5 to the Planning and Development Regulations 2001, the Commission, in the case of an application under section 39A(1), …. shall determine, in accordance with this section, whether or not the proposed pipeline would be likely to have significant effects on the environment and, where it determines that the proposed pipeline would be likely to have significant effects on the environment, the Commission or the Environmental Assessment Unit, as the case may be, shall direct that the proposed pipeline concerned is to be the subject of an environmental impact assessment and the Board or the other person, as the case may be, shall submit an environmental impact assessment report in respect of the construction and operation of the proposed pipeline to the Commission….*

40A (bc) For the purpose of enabling the Commission or the Environmental Assessment Unit, as the case may be, to make its determination under paragraph (b) or (bb), the Board or the other person, as the case may be, shall provide the information specified in Annex IIA to the … taking into account, where relevant, the available results of other relevant assessments of the effects on the environment of the proposed pipeline carried out pursuant to European Union legislation (other than the EIA Directive).

40A (bd) The information referred to in paragraph (bc) may be accompanied by a description of the features of the proposed pipeline and the measures, if any, envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.

This EIA Screening Report provides the information under Annex IIA of the EIA Directive 4, the CRU must determine whether the project would be likely to have significant effects on the environment, the relevant selection criteria specified in Annex III to the EIA Directive must be taken into account.

Planning and Development Regulations 2001 as amended

The Environmental Impact Assessment ("EIA") Directive has been codified under Directive 2011/92/EU (the "EIA Directive") as amended by Directive 2014/52/EU. The purpose of an EIA is to ensure a high level of protection for the environment and human health before any substantial public or private developments are undertaken. The EIA Directive achieves this by ensuring that projects which are likely to have 'significant effects' on the environment are subject to an assessment.

Ireland has implemented the EIA Directive, inter alia, under the Planning and Development Act 2000 (as amended) ('the Act'), in particular Part X thereof and also under the Planning and Development Regulations 2001 (as amended) (the "Regulations").

As referenced in the Gas Act 1976 (as amended), Schedule 5 of the Regulations outlines the legislative requirements deeming whether a project needs a mandatory EIA. Projects that automatically require an EIA are included in Annex I of the EIA Directive are listed in Part 1 of Schedule 5 to the Regulations. Projects that are assessed either on a case-by-case examination or on the basis of set mandatory thresholds are defined under Annex II of the EIA Directive, and these are transposed in Irish legislation in Schedule 5, Part 2 of the Regulations.

1.4 EIA SCREENING METHODOLOGY

The information required to be submitted by the developer for the CRU to make a determination if the project should be subject to EIA is set out in Annex IIA of the EIA Directive. The Annex IIA information is set out below:

1. A description of the project, including in particular:

(a) a description of the physical characteristics of the whole project and, where relevant, of demolition works;

(b) a description of the location of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected.

2. A description of the aspects of the environment likely to be significantly affected by the project.

3. A description of any likely significant effects, to the extent of the information available on such effects, of the project on the environment resulting from:

(a) the expected residues and emissions and the production of waste, where relevant;

(b) the use of natural resources, in particular soil, land, water and biodiversity.

4. The criteria of Annex III shall be taken into account, where relevant, when compiling the information in accordance with points 1 to 3.

An evaluation of the characteristics of the project, the sensitivity of the location of the Proposed Development, and the potential for significant impacts has been made with regard to Annex III of the EIA Directive. Annex III of the EIA Directive sets out the criteria to determine whether a development would or would not be likely to have significant effects on the environment. The criteria is broadly set out under the three main headings:

1. Characteristics of projects

The characteristics of projects must be considered, with particular regard to:

(a) the size and design of the whole project;

(b) cumulation with other existing and/or approved projects;

(c) the use of natural resources, in particular land, soil, water and biodiversity;

(d) the production of waste;

(e) pollution and nuisances;

(f) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;

(g) the risks to human health (for example due to water contamination or air pollution).

2. Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:

(a) the existing and approved land use;

(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;

(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

(ii) coastal zones and the marine environment;

(iii) mountain and forest areas;

(iv) nature reserves and parks;

(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;

(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;

(vii) densely populated areas;

(viii) landscapes and sites of historical, cultural or archaeological significance

3. Type and characteristics of the potential impact

The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in Article 3(1), taking into account:

(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); (b) the nature of the impact;

(c) the transboundary nature of the impact; (d) the intensity and complexity of the impact;

(e) the probability of the impact;

(f) the expected onset, duration, frequency and reversibility of the impact;

(g) the cumulation of the impact with the impact of other existing and/or approved projects;

(h) the possibility of effectively reducing the impact.

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

1.5 REQUIREMENT FOR MANDATORY EIA

The initial step is determining the requirement for EIA is if the Proposed Development is a project, and if that project is listed in Schedule 5 Part 1 or does it meet or exceed the thresholds in Schedule 5 Part 2, of the Regulations.

For the purposes of the EIA Directive a *'project'* means either:

- the execution of construction works or of other installations or schemes, or

- other interventions in the natural surroundings and landscape including the extraction of mineral resources

The Proposed Development includes the execution of construction works and is a project as per the EIA directive.

A list of the types or classes of development that require EIA or screening for EIA is provided in Part 1 and Part 2 of Schedule 5 of the Regulations. *'Sub-threshold development'* comprises development of a type that is included in Part 2 of Schedule 5, but which does not equal or exceed a quantity, area or other limit (the threshold).

AWNs have considered relevant classes of project, and considered the related development details, and the requirement for EIA as outlined in Table 1.1, and 1.2 below.

Table 1.1 *Relevant Schedule 5 Part 1 types or classes of development and requirement for EIA*

Development for the Purposes of Class:	Related Development Details	Requirement for EIA
16. Pipelines with a diameter of more than 800mm and a length of more than 40km: — for the transport of gas, oil, chemicals, and, — for the transport of carbon dioxide (CO2) streams for the purposes of geological storage, including associated booster stations.	The proposed pipeline has a diameter of 219.1 mm / 200mm nominal bore, and has a length c. 2.488 km. The proposed pipeline does not meet or exceed the threshold set out in Part 1 Class 16; therefore an EIA is not mandatory under this Project Class.	No – EIA is not mandatory under this class.

Table 1.2 *Relevant Schedule 5 Part 2 types or classes of development and requirement for EIA*

Development for the Purposes of Class:	Related Development Details	Requirement for EIA
10 (i). Oil and gas pipeline installations and pipelines for the transport of CO2 streams for the purposes of geological storage (projects not included in Part 1 of this Schedule).	The Proposed Development is of a type listed as Part 2, Class 10(i).	The project is of a type listed but is sub-threshold, as no threshold applies. In line with Section 40A (b) of the Gas Act EIA Screening is necessary to determine the requirement for EIA. The criteria as set out in Annex IIA and Annex III of the EIA Directive has been included in this EIA Screening Report to demonstrate the if the project is likely to have significant effects on the environment.
15. Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.	The Proposed Development has the potential for significant effects on the environment, having regard to the criteria set out in Schedule 7.	The criteria as set out in Schedule 7 (Annex IIA) and Schedule 7A (Annex III) has been included in this EIA Screening Report to demonstrate the if the project is likely to have significant effects on the environment.

The main body of this report (Sections 3.0, 4.0 and 5.0) provides information on the characteristics of the Proposed Development in line with Annex III; the location and context, and its likely impact on the environment as well as a description of any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment. These sections present the information required under Annex IIA of the EIA Directive, broadly set out in the structure of Annex III of the EIA Directive in order to assist the CRU in its screening assessment.to ensure that each aspect for consideration is robustly addressed.

For the avoidance of doubt, the mitigation measures, which are referred to in this Screening Report, should be considered as measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment for the purposes of EIA Screening.

1.6 CONTRIBUTORS TO THIS EIA SCREENING REPORT

This EIA Screening Report and the Proposed Development has been informed by the accompanying documents submitted with the application (and the relevant listed mitigation measures as included therein). The preparation and co-ordination of this screening report has been completed by AWN and has relied on specialist input from the project design team and applicant, as per Table 1.3.

Table 1.3 *Applicants Project Team*

Role	Contributor
Applicant	Gas Networks Ireland
Engineering Design, Civil and Structural Engineers	Fingleton White
Population and Human Health; Land, Soils, Geology, Hydrogeology, and Hydrology; Air Quality and Climate; Material Assets and Waste Management, Noise and Vibration	AWN Consulting Limited
Archaeology, and Cultural Heritage	CRDS Limited
Biodiversity: Appropriate Assessment Screening and Ecological Impact Assessment Screening	Moore Group, and O'Donnell Environmental

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

Each environmental specialist of the applicants project team was commissioned having regard to their previous experience in EIA; their knowledge of relevant environmental legislation relevant to their topic; familiarity with the relevant standards and criteria for evaluation relevant to their topic; ability to interpret the specialised documentation of the construction sector and to understand and anticipate how their topic will be affected during construction and operation phases of development; ability to arrive at practicable and reliable measure to mitigate or avoid adverse environmental impacts; and to clearly and comprehensively present their findings.

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

This EIA Screening report was prepared by Sarah Tierney and Jonathan Gauntlett. Sarah Tierney is an Environmental Consultant with AWN Consulting and a graduate member of the Institute of Environmental Management and Assessment (GradIEMA). She has experience in EIA Reports, EIA screening, EPA IE licence applications and compliance reporting for a range of developments, such as pharmaceutical plants, ICT facilities and residential developments. She holds a BA in Environmental Science from Trinity College Dublin and is a member of the Environmental Sciences Association of Ireland. Jonathan is a Principal Environmental Consultant in AWN Consulting with expertise in impact assessment, licensing, environmental compliance and project management. Recent projects include; EIA for SHD and planning applications, EPA Licencing and waste management. Jonathan has over 10 years' experience in environmental compliance, environmental licensing, and urban planning. Jonathan has a BSocSc (Environmental Planning) and BBA (Economics) from the Waikato University in New Zealand and has experience working in the environmental consultancy, planning, and regulatory fields from Ireland, the UK and New Zealand.

1.7 CONSULTATION

Informal consultation by way of seeking feedback in respect of the proposed development to Inland Fisheries Ireland (IFI), and the National Parks and Wildlife Services (NPWS) via the Department of Housing, Local Government and Heritage Development Applications Unit (DAU).

Inland Fisheries Ireland (IFI) emphasised the need to protect the Cross River, a salmonid tributary of the River Shannon, during the proposed project. IFI highlighted the importance of compliance with the Water Framework Directive and requested that final designs, method statements, and mitigation measures be agreed upon with IFI before work commenced. Key recommendations included monitoring during crossings, conducting drilling outside of the closed season, implementing strict environmental controls, and preparing an emergency plan. All works were to avoid the closed season (1st October to 30th April) to protect aquatic habitats.

NPWS supported the preparation of a Natura Impact Statement (NIS) for the proposed works, agreeing that it was appropriate given the location and nature of the project. The NIS was expected to address site-specific effects and include necessary mitigation measures.

The DAU recommended engaging a Consultant Archaeologist to conduct an Archaeological Impact Assessment (AIA). The AIA should include desk-based research, site inspections, and appropriate non-invasive and invasive archaeological investigations as required to ensure an informed assessment. Additionally, any intrusive investigations during the design process should be archaeologically monitored. The results should inform the design and be included in the AIA.

The full consultation responses are included in Appendix C to this EIA Screening Report.

2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed c. c. 2.488 km 200 NB pipeline will provide a natural gas supply to the permitted Greener Ideas Facility by connecting the permitted Monksland AGI to the existing BGE/77 750mm Ories to Perssepark 'Pipeline to the West'. The detailed specifications, including the specific locations and distances along the pipeline (chainage), description of the location, and the construction method is provided below in Table 2.1.

The drawings related to the Proposed Development as set out in the Fingleton White register of drawings 1379-01-PR-05002. are provided with the S39A Application documentation.

This description is not exhaustive, and as such the EIA Screening Report should be read in conjunction with full application package including the outline Construction Methodology (FW, 2024), and the outline Construction Environmental Management Plan (AWN, 2024).

The description of the Proposed Development is described in terms of those environmental topics that will form the basis of the impact assessment process and the characteristics of the proposed development and potential effects. The assessments reported in this EIA Screening Report have been conducted using this description, and the full application package as a guide to the details of the development under consideration.

Table 2.1 *Proposed Pipeline Route Description*

Route section	Description of Location	Pipeline length (m)	Construction method
Chainage 000 Tie-in point to the existing BGE/77 pipeline	The proposed pipeline will tie into the existing 750 NB 'Pipeline to the West', BGE/77, in an agricultural field to the west of the R446 road.	N/A	Tie in Location
Chainage 000 to 015 Agricultural land	The pipeline will be routed east through agricultural land to the R446 road culvert crossing point.	c. 15 m	Open cut trench in field
Chainage 015 to 020 Crossing the culvert of the tributary of the Newtownflood Stream on the R446	The pipeline will be routed north and cross a culverted tributary of the Newtownflood Stream within the R446 road.	c. 5 m	Open cut trench culvert service crossing
Chainage 020 to 1610 Public roadways R446	The pipeline will be routed north along the R446	c. 1,590 m	Open cut trench in roadway
Chainage 1610 to 1900 Public roadways L2027	The pipeline will be routed west along the L2027 to the Drum Community Centre.	c. 290 m	Open cut trench in roadway
Chainage 1900 to 2065 Agricultural land	The pipeline will be routed northwest from the L2027 through agricultural land.	c. 165 m	Open cut trench in field

Chainage 2065 to 2075 Crossing of the tributary of the Cross River	The pipeline will be routed north and cross through a ditch tributary of the Cross River.	c. 10 m	Open cut trench - flume watercourse crossing
Chainage 2075 to 2155 Agricultural land	The pipeline will be routed northwest through agricultural land to the Cross River launch shaft.	c. 80 m	Open cut trench in field
Chainage 2155 to 2215 Crossing underneath the Cross River	The pipeline will be routed underneath the Cross River, utilising a trenchless crossing method. Launch shaft and receiver shaft will be required at this location. A temporary bridge will be installed over the Cross River to facilitate access.	c. 60 m	Trenchless Crossing Temporary bridge
Chainage 2215 to 2245 Agricultural land	The pipeline will be routed north through agricultural land until the M6 motorway and Galway to Dublin Hueston rail line launch shaft.	c. 30 m	Open cut trench in field
Chainage 2245 to 2365 Crossing underneath the M6 motorway and Galway to Dublin Hueston rail line crossing	The pipeline will be routed beneath the M6 motorway and Galway to Dublin Hueston rail line, utilising a trenchless crossing method. Launch shaft and receiver shaft will be required at this location.	c. 120 m	Trenchless Crossing
Chainage 2365 to 2420 Scrub land at the margin of the M6 motorway	The pipeline will be routed west through scrub land at the margin of the M6 motorway; crossing minor drainage ditches.	c. 55 m	Open cut trench
Chainage 2420 to 2430 Crossing of the tributary of the Cross River	The pipeline will be routed north and cross through a ditch tributary of the Cross River.	c. 10 m	Open cut trench - flume watercourse crossing
Chainage 2430 to 2435 Piped tributary of the Cross River	The pipeline will be routed west and cross an underground closed piped tributary of the Cross River within the Greener Ideas Facility site.	c. 5 m	Open cut trench – culvert service crossing
Chainage 2335 to 2488 Greener Ideas Facility and tie-in to the permitted Monskland AGI	The pipeline will be routed west through the Greener Ideas Facility to the permitted Monskland AGI Compound, where it will tie-in to the Monskland AGI.	c. 53 m	Open cut trench in field / Greener Ideas Facility

2.1 DESCRIPTION OF CONSTRUCTION

This section of the EIA Screening Report provides an outline description of the construction phase of the proposed development. Included with the application is the outline Construction Methodology prepared by Fingleton White that provides the framework from which a detailed Construction Methodology will be developed by the

appointed construction contractor. This will include comprehensive method statements and construction techniques to be finalised before site work commences.

AWN Consulting have prepared the project outline Construction Environmental Management Plan (oCEMP) provides the framework from which the CEMP will be developed by the appointed construction contractor to avoid, minimise or mitigate any construction effects on the environment prior to commencement on site. This plan should be viewed as a live document that will be updated as and when required. The contractor will then prepare specific method statements setting out site working requirements which manage perceived risks to the environment e.g., traffic management, work safety plans etc.

Construction compounds will be established along the proposed pipeline route. The compounds will serve as the central hubs for various activities and functions during the construction of a project. They are temporary setups that provides essential welfare facilities and space for workers, equipment, materials, and administrative needs. The oCEMP (AWN, 2024) details the elements that the site compounds will include, as well as the factors that will be considered when finalising the locations of these compounds.

It is anticipated that the construction of the Proposed Development will be completed during normal construction hours i.e. 7 am to 7 pm Monday to Friday, and 8 am to 2 pm on Saturdays. However, it is possible that the contractor may wish to carry out certain operations outside these hours i.e. Sunday or evening hours during long summer days etc. Such occurrences will be kept to a minimum and take place over a short timeframe and as such are unlikely to cause excessive disturbance.

The contractor will implement health and safety measures in relation to the safety of the workforce and the public. Additionally, measures will be applied to minimise traffic delays, disruption and maintain access to residences and businesses along the public road. Construction traffic access to the site will be via the existing roadways where the majority of the pipeline will be installed, the R446 and the L2027.

2.1.1 Construction Methodology

Construction methodologies to be implemented and materials to be used will ensure that the pipeline is installed in accordance with the guidelines and standards of GNI. See further detail presented in 1379-01-RT-0102-R1 Gas to GIL Athlone Construction Methodology prepared by Fingleton White and submitted with this application including sequencing of works and diagrams. This section summaries the key environmental aspects of the proposed construction elements.

Tie In Location

The new pipeline shall tie into the existing 750 NB BGE/77 pipeline in an agricultural field on the west side of the R446 road located at (Chainage 000).

An approximate 4.5m deep excavation shall be undertaken here to facilitate the hot tap tie-in. An excavated length of approximate 14 m around the hot tap is required to facilitate the drilling equipment.

Hot tapping allows a connection to an existing pipeline to be completed while the line is fully operational, ensuring no shutdown is required and that no gas is lost from the pipe.

Refer to the drawing GNI-7710-002-01 for the proposed hot tap mechanical arrangement.

Open Cut Trench Methodology in Fields

The Monksland Pipeline shall be laid in agricultural lands (c. 413 m in total) using an open cut method as described in this section. These sections are located at Chainage 000 to 015, Chainage 1900 to 2065, Chainage 2075 to 2155, Chainage 2215 to 2245 and Chainage 2365 to 2488.

This presents a summary description, see further construction detail presented in the Construction Methodology. Refer to the drawing GNI138-MISC-003-01 for the typical cross section working within field, and typical reinstatement details in drawing GNI138/RD/001/01.

Table 2.2 *Open Cut Methodology in Fields*

Element	Summary Description
Route Preparation & Working Width	Survey and peg out the pipeline route before construction commences. Install pre-construction field drainage if necessary to ensure existing drainage systems remain functional. Fence off a 30 m wide working area within agricultural land. Remove hedges and trees within the working width as needed.
Topsoil Stripping	Strip topsoil to a depth of 300 mm. The topsoil shall be stored separately to the subsoil for future reinstatement. Topsoil will be kept free from disturbance for the duration of construction to reduce risk of physical damage and compaction.
Pipe Stringing	String out individual pipe lengths (standard 12m lengths) in preparation for welding. Cold bend pipes using specialist machines to accommodate minor changes in direction (e.g., changes in site contour). Prefabricated bends will be used for larger directional changes.
Pipe Welding	Weld the strung-out sections of pipe together above ground. Conduct non-destructive (x-ray) testing on all welds. Apply protective coating to welds and perform holiday testing to detect discontinuities.
Trenching & Excavation	Excavate trenches to a depth of 1600 mm, ensuring a minimum cover of 1.2 m above the pipe. Subsoil will be stored separately from topsoil to prevent mixing. Trench supports and close sheet piling may be used where necessary to aid construction. Dewatering of the pipe trench may be required along the pipeline route and will be carefully controlled to prevent sediment entering watercourses in accordance with the Construction Environmental Management Plan (CEMP).
Pipe Insertion & Backfilling	Ensure the trench is evenly bedded with pre-approved material (Cl. 503) to a depth of 150 mm (300 mm in rocky areas). Lower the pipeline into the trench. Surround and cover the pipeline with pre-approved material (Cl. 503) to a minimum depth of 150 mm above the pipe. Backfill the trench in 300 mm layers, incorporating warning tape and compacting the material.

	Install water stops in the trench as needed to prevent it from acting as a conduit for groundwater. Spread topsoil across the working width after backfilling.
Reinstatement	Regrade the working area to allow normal farming activities to resume. Install land drains as needed, ensuring they do not create contamination pathways or cause flooding. Replant grass seed and replace hedgerow sections that were removed, matching the original hedgerow where possible. Rebuild fences and walls to meet the landowner's specifications using materials that match the existing structures.

Open Cut Trench Methodology in Roadway

The Monksland Pipeline shall be laid in existing roads (c. 1,885 m in total) using an open cut method as described in this section. These sections are located at Chainage 015 to 1900.

This presents a summary description, see further construction detail presented in the Construction Methodology. Refer to the drawing GNI138/RD/001/01 for the typical trench cross section and reinstatement details for grass verge, road/footpath, and rock excavation. Third-party services (electric, storm sewer, foul sewer, potable water, etc) will follow the typical service crossing drawing GNI138/Misc/001/01. There is no disruption or disconnections of third-party services expected.

Table 2.3 *Open Cut Method in Road Summary*

Element	Summary Description
Route Preparation & Working Width	Survey and peg out the pipeline route before construction commences identifying and marking all existing underground services, installing warning posts for overhead cables, and indicating temporary crossing points. Install pre-construction field drainage if necessary to ensure existing drainage systems remain functional. Remove hedges and trees within the working width as needed.
Pipe Stringing	String out individual pipe lengths (standard 12m lengths) in preparation for welding. Cold bend pipes using specialist machines to accommodate minor changes in direction (e.g., changes in site contour). Prefabricated bends will be used for larger directional changes.
Pipe Welding	Weld the strung-out sections of pipe together above ground. Conduct non-destructive (x-ray) testing on all welds. Apply protective coating to welds and perform holiday testing to detect discontinuities.
Excavation & Trenching	Excavate to a minimum depth of 1600 mm (to base of trench) and 500 mm width (both at base and ground level). Extend excavations locally every 12 – 24 m at bell hole locations to facilitate welding. Trench depths will be adjusted based on existing service crossings to meet the minimum cover requirements as per I.S. 328: 2021. Existing services/utilities will be crossed as per the typical service crossing drawing GNI138/MISC/001/01.

	The subsoil shall be stored separately to asphalt/bitmac for future reinstatement, any excavated material not used will for reinstatement will be removed as waste. Trench supports and close sheet piling may be used where necessary to aid construction. Dewatering of the pipe trench may be required along the pipeline route and will be carefully controlled to prevent sediment entering watercourses in accordance with the Construction Environmental Management Plan (CEMP).
Pipe Insertion & Backfilling	Ensure the trench is evenly bedded with pre-approved material (Cl. 503) in accordance with IS 328:2021, GNI/AO/SP/007, Guidelines for Managing Openings in Public Roads 2017 (The Purple Book) and compact. Lower the pipeline into the trench. Surround and cover the pipeline with pre-approved material (Cl. 503) in accordance with IS 328:2021, GNI/AO/SP/007, Guidelines for Managing Openings in Public Roads 2017 (The Purple Book). Place gas pipeline marker tape on compacted CL.503 and subsoil, 500 mm from the top of the pipe and 250 mm from the surface.
Reinstatement	Rebuild fences and walls to meet the landowner's specifications using materials that match the existing structures. For concrete and asphalt/bitmac road sections, carry out immediate temporary reinstatement in accordance with the design drawings and *IS 328:2021, GNI/AO/SP/007, Guidelines for Managing Openings in Public Roads 2017 (The Purple Book*). Backfill unsurfaced or grass sections with suitable excavated material to match existing ground level. The roads will be permanently reinstated at a later date as agreed with the local authority / landowners, with either full or half road width reinstatement.

Open Cut – Service Crossing

The Monksland Pipeline has one crossing of an existing culvert (tributary of the Newtownflood stream) located at Chainage 0150 to 020, and one crossing of an existing piped watercourse (tributary of the Cross River) located at Chainage 2430 to 2435

These culvert/pipe crossings will follow a typical third-party service crossing, whereby the pipeline will be installed to avoid interaction with the existing underground service. Given the minimum depth of cover required (1200 mm to the top of the pipe) the pipeline will be constructed to pass underneath the culvert section. A minimum separation distance of 500mm will be maintained between the pipeline and the watercourse/culvert pipe. A typical service crossing drawing provided is included in drawing GNI138/Misc/001/01.

The service crossing methodology at this section includes:

- A trench will be excavated beneath the concrete pipe, ensuring that the existing pipe remains intact and undisturbed (minimum separation distance of 500mm).
- The gas pipeline will be laid in the trench below the watercourse/culvert pipe.
- The trench will be backfilled and compacted to restore the ground to its original level.

The pipeline designed to pass underneath the piped section with an adequate separation distance, eliminating any potential impact on the stream's structural integrity and flow. There are no instream works at these crossing locations.

Other third-party services (electric, storm sewer, foul sewer, potable water, etc) will follow the typical service crossing drawing GNI138/Misc/001/01. There is no disruption or disconnections of third-party services expected.

Open Cut Methodology - Flume Water Course Crossing,

The Monksland Pipeline has 2 no. open cut watercourse crossing through the tributary of the Cross river located at Chainage 2065 to 2075, and one located at Chainage 2420 to 2430. This water crossing is proposed to be undertaken during flow conditions using an open cut method, with the water temporarily diverted using a flume (pipe). The flume will temporarily direct water away from the trench area, preventing interference from construction activities and ensuring the safety of workers and the integrity of the watercourse.

At this crossing location the flume (temporary culvert) crossing is installed to allow for an uninterrupted running track for the duration of the construction works, and removed once reinstatement of the working area is completed.

This section presents a summary description, see further construction detail presented in the Construction Methodology. Refer to drawing BGE_ST_2002 for a typical stream/watercourse crossing and reinstatement details.

Table 2.4 *Open Cut Methodology Flume Water Course Crossing*

Element	Summary Description
Route Preparation & Working Width	Survey and peg out the pipeline route before construction commences. Fence off working width at the water course crossing. Remove hedges and trees within the working width as needed.
Topsoil Stripping	The banks are then graded back to bed level. The topsoil shall be stored separately to the subsoil for future reinstatement. Topsoil will be kept free from disturbance for the duration of construction to reduce risk of physical damage and compaction.
Installation of Flume	Flume pipes sized to ensure they are capable of accommodation flood flow water volumes are inserted into the watercourse, ensuring they extend past the area of the proposed trench and running track. The waters being crossed shall be effectively dammed both upstream and downstream of the trench location so as to ensure that works are undertaken in the dry. Straw bales are placed downstream to capture sediments as required. The water course is then left uninterrupted until a few days (estimated 2-3 days) before the pipeline install time.
Excavation	The pipe trench is then excavated below the flume pipe. This excavated material is stored separately to the topsoil and subsoil and only this material will be used to backfill the watercourse trench. Trench supports and close sheet piling may be used where necessary to aid construction.

	Dewatering of the pipe trench may be required along the pipeline route and will be carefully controlled to prevent sediment entering watercourses in accordance with the Construction Environmental Management Plan (CEMP).
Pipe Stringing	String out individual pipe lengths (standard 12m lengths) in preparation for welding. Cold bend pipes using specialist machines to accommodate minor changes in direction (e.g., changes in site contour). Prefabricated bends will be used for larger directional changes.
Pipe Welding & Trenching	Weld the strung-out sections of pipe together above ground. Conduct non-destructive (x-ray) testing on all welds. Apply protective coating to welds and perform holiday testing to detect discontinuities. A precast marker slab will be laid 300mm above the pipeline.
Pipe Insertion & Backfilling	Ensure the trench is evenly bedded with pre-approved material (Cl. 503) to a depth of 150 mm (300 mm in rocky areas). Lower the pipeline into the trench. Surround and cover the pipeline with pre-approved material (Cl. 503) to a minimum depth of 150 mm above the pipe. Backfill the trench in 300 mm layers, incorporating warning tape and compacting the material. A precast marker slab will be laid 300mm above the pipeline. Install water stops in the trench as needed to prevent it from acting as a conduit for groundwater.
Reinstatement	The trench is backfilled such that it is level with the rest of the watercourse bed. The watercourse banks are then reformed to their original profile. Replant grass seed and replace hedgerow sections that were removed, matching the original hedgerow where possible. Rebuild fences and walls to meet the landowner's specifications using materials that match the existing structures.

Trenchless Methodology – Cross River, Railway and Motorway Crossing

The Monksland Pipeline has 2 no. planned trenchless crossings one for the Cross River (Chainage 2155 to 2215), and one for the Railway and Motorway (Chainage 2245 to 2365).

The trenchless crossing will require launch and reception shafts (temporary works) these will be carefully planned, designed, set out and fully excavated. The Construction Methodology provide further detail on the launch and reception shaft construction. These shafts, constructed using steel sheet piled cofferdams, ensure safe excavation by holding back soil and water pressures. The design of the cofferdams considers factors like excavation depth and equipment loads. Controlled dewatering is necessary to prevent sediment from entering watercourses, as outlined in the Construction Environmental Management Plan (CEMP). After the gas pipe is installed, the pits are backfilled in a structured sequence, with steel sheet piles removed afterward.

Table 2.5 presents a summary description of the trenchless crossing of the cross river see further construction detail presented in the Construction Methodology. Refer to drawing GNI138-7-001 submitted with this application.

Table 2.5 *River Crossing (Cross River)*

Stage	Description
Launch & Reception Shafts	Installation of launch and reception shafts at either end of the crossing. The Launch Shaft will be located on the southern side of the river and approximately 12m long x 4m wide x 5m deep sheet piled. The Reception Shaft will be located on the northern site of the river and approximately 5m long x 4m wide x 5m deep sheet piled. Shafts are sized to accommodate the operation of the trenchless machine.
Trenchless Installation	The Preliminary Design for the Cross River Crossing has determined that the trenchless crossing can be achieved with a Conventional Micro-tunnelling approach or Guided Auger-boring / Hybrid MT. These methods include the use of concrete pipe sleeve that provides continual ground support to the excavated tunnel The depth is determined by the depth of the rock head and riverbed. A minimum clearance of 1.6m from the riverbed to the top of the pipe, as required by IS 328:2021 and GNI standards. The trenchless crossing of the Cross River is a minimum distance of 60m.
Excavated Material Removal	Excavated material transported back to the pit by (Archimedes screw). Material is discharged in the pit and removed to the surface using muck skips or an excavator.

Table 2.6 presents a summary description of the railway and motorway crossing see further construction detail presented in the Construction Methodology. Refer to drawing GNI138-7-002 submitted with this application.

Table 2.6 *Rail and Motorway Crossing*

Stage	Description
Launch & Reception Shafts	Installation of launch and reception shafts at either end of the road/rail crossing. The Launch Shaft will be located to the south of the railway approximately 15m long x 3.5m wide sheet piled. The Reception Shaft will be located to the north of the motorway and approximately 3.5m long x 3.5m wide sheet piled. Shafts are sized to accommodate the operation of the trenchless machine.
Trenchless Installation	The Preliminary Design for the Cross River Crossing has determined that the trenchless crossing can be achieved with a Conventional Micro-tunnelling approach or Guided Auger-boring / Hybrid MT. These methods include the use of concrete pipe sleeve that provides continual ground support to the excavated tunnel The depth is determined by the depth of the rock head and riverbed. The railway crossing is anticipated to be conducted at approximately 5.6 meters deep from the railway track and around 3.7 meters deep from the motorway. The pipeline will maintain a minimum depth of 1.2 meters at outside of the railway boundary. The trenchless crossing of the Railway and Motorway is a minimum distance of 120m
Excavated Material Removal	Excavated material transported back to the pit by (Archimedes screw). Material is discharged in the pit and removed to the surface using muck skips or an excavator.

Dewatering During Construction

Dewatering and removal of surface run-off is necessary to create a dry working environment and prevent water from seeping into the excavation and flooding the construction site.

Dewatering from the established shallow ground bores will be managed as required to assist with creating a dry working environment and prevent water from seeping into the excavation (launch and receiver) and flooding the construction site.

Dewatering water from within these overburden deposits will be contained within the site, treated, and ultimately discharged to the Cross River.

Construction Duration

The overall start-to-finish duration is estimated to be 9 months. Construction is anticipated to commence in Q1 2025 and be completed by Q1 2026.

For each construction crew, the length of working area at any one time is expected to be 100 m. Note it is expected that there will be 2 – 3 working sections of 100 m along all the routes during construction. These working sections will be separated by a distance as agreed with the local authorities / business parks so that traffic disruption is minimised. The advance rate is expected to be 18 – 24 m per day.

Temporary Working Areas

The Proposed Development will require the establishment of temporary working areas including three (3) construction compounds in order to facilitate the Proposed Development works. Locating the areas along the route ensures that construction activities can be efficiently managed and supervised, reducing the logistical challenges associated with a single centralised compound.

The proposed site construction compounds are as follows:

- 1 no. temporary working area and compound at the proposed hot tap location,
- 1 no. temporary working area and compound located in the agricultural lands to the north of the Drum Community Centre, and
- 1 no. temporary working area and compound at the proposed tie-in with the Monksland AGI.

The temporary working area locations have been identified and indicative space planning undertaken as illustrated below in drawing ref: GNI-7710-005-01 drawing ref: GNI138-Misc-004-01 for the Hot Tap compound and Agricultural Lands compound, respectively.

There are 4 no. potential locations identified for the temporary working area and compound at the Monksland AGI. These potential locations can be found in the drawings submitted with the 39A planning application. The respective drawing references are GNI-13803-008-01 - AGI Temporary Works Area Sht2, GNI-13803-008-02 - AGI Temporary Works Area Sht2, GNI-13803-008-03 - AGI Temporary Works Area Sht3 and GNI-13803-008-04 - AGI Temporary Works Area Sht4. The final AGI compound location will be established in collaboration with the appointed construction contractor(s).

Haul roads will be established within the running track and temporary works area, Depending on the soil conditions. These will be stabilised utilising materials such as crushed rock, gravel and a layer of geotextiles to improve load-bearing capacity and prevent deformation under heavy traffic.

2.2 DESCRIPTION OF COMMISSIONING

Once the construction of the Proposed Development is completed, Gas Networks Ireland will mobilise to complete the commissioning. Commissioning will be carried out over a 1 to 2 months and is included within the construction timelines.

Commissioning works primarily involve suitably qualified individuals connecting the proposed gas pipeline at the hot tap connection to the existing transmission gas pipeline.

The pipework will be cleaned and tested in accordance with the *IS328:2021, GNI/AO/SP/007*. The pipelines will be swabbed with pigs to clean out any debris and a gauge pig will be used to prove the pipelines internal diameter. The pipelines are then hydrostatic tested (pressurised with clean water) to prove the strength and integrity of the pipeline after construction.

This will involve filling the entire transmission pipeline with clean potable water, and pressurised to identify any leak. There are no chemical additives to this water. The required water will be sourced from an existing supply either from nearby municipal supply point (mains water supply, local authority fire hydrants) or alternatively, abstraction from another water supply in private ownership from groundwater / surface water that is permitted and registered with the EPA under the European Union (Water Policy) (Abstractions Registration) Regulations 2018 (S.I. No. 261 of 2018).

Following successful completion of the hydrostatic test, the pipelines will be dried using foam pigs and desiccant air. Finally, a nitrogen gas 'slug' between 2 pipeline inspection gauges (PIGs) is then admitted to one end of the pipeline. The natural gas is then admitted behind the nitrogen slug and the pipeline is commissioned and pressurised in accordance with IS328 and GNI Procedures. It then becomes operational. There are minimal gas emissions to the environment during this process.

The working area will be reinstated as agreed with landowners e.g. such that normal farming activities can be recommenced by the landowners.

The working area will be regraded, and grass seed will be set. Fences and walls will be reinstated to meet landowner's requirements using materials that match the existing fences/walls as appropriate. Hedgerow sections that were removed will be replaced to match the removed hedgerow where possible. Any additional hard landscaping and soft landscaping will be completed.

2.3 OPERATIONAL OF THE PROJECT

GNI will operate the underground transmission gas pipeline and carry out routine maintenance for the lifetime of the asset as per I.S. 328: 2021. This asset has the purpose of supplying a gas connection to the permitted Greener Ideas Facility.

Once constructed, the proposed underground transmission gas pipeline will not require any staff to operate it. GNI maintenance staff, one van, will carry out checks every two weeks to a month along with routine inspection and maintenance, including pigging, of the asset every seven to ten years. Maintenance shall be in accordance with GNIs Functional Specification Requirements document.

The operation of the pipeline is based on a closed system, therefore during normal operating conditions there will be no release of natural gas to the atmosphere. There

will be minimal emissions from the operation of gas hydraulic operated valves, safety relief valves and venting down of filters, etc for maintenance.

Approximately every 7 - 10 years, the pipeline will be 'pigged' using an intelligent pig launched from the AGI in order to monitor the mechanical status of the pipeline itself. De-pressurising the pig traps at either end of the system involves the release of natural gas. This may be recompressed in lower pressure gas systems if available. The quantities will not be significant and the emission will be closely controlled.

The underground transmission gas pipeline is located predominantly on the public roadway. During the operational phase the site will be accessed via these roads, the R446 and L2027. For the smaller portion of the pipeline passing through agricultural lands, a permanent wayleave of 14m will be sought to allow access for GNI to excavate and inspect the pipeline in the future.

2.4 CHANGES TO THE PROJECT AND DECOMMISSIONING

The lifespan of the Proposed Development is not defined but it is anticipated that it will be maintained, and periodic upgrading undertaken over a long lifetime to meet future demand and upgrade in technology.

If the proposed underground transmission gas pipeline is no longer required over the long term, then full decommissioning in accordance with prevailing best practice will be undertaken. Transmission pipelines at the end of their operational life are degassed and isolated at the inlet and outlet. The installation shall be filled with 500mbar of nitrogen within 1 month of the customer's decommissioning date. The transmission gas pipeline is filled with grout in line with standard GNI pipeline decommissioning procedures. The gas transmission property, plant, and equipment shall be decommissioned in line with the transmission decommissioning process AM/BP/107.

The costs associated with the decommissioning, removal and disposal of the asset will be met by GNI.

3.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT

This section addresses the characteristics of the Proposed Development by describing the physical characteristics of the whole Proposed Development and a description of the location of the Proposed Development, with regard to the environmental sensitivity of geographical areas likely to be affected.

3.1 SIZE AND DESIGN

The proposed Monksland Pipeline consists of a 200mm (Nominal Bore) underground transmission pipeline 2.488 km in length, hot tap connection (named 'Monksland Hot Tap'), and underground pigging station (pipeline inspection, cleaning, maintenance) located at the Monksland Hot Tap.

The pipeline is underground for the entire length. The Monksland Pipeline will require excavation to a minimum depth of 1600 mm (to base of trench) and 500 mm width (at base of trench) and 500 mm width (at ground level). The minimum depths of cover are specified as per I.S. 328: 2021.

There are no above ground structures as part of the proposed development . The pipeline will connect to the permitted Monksland AGI. GNI will operate the underground transmission gas pipelines and carry out routine maintenance for the lifetime of the asset as per I.S. 328: 2021.

3.2 CUMULATION WITH OTHER EXISTING OR PERMITTED DEVELOPMENT

As part of the assessment of the effects of the Proposed Development, account has been taken of other existing or permitted development within the surrounding area that have the potential to combine with the Proposed Development and result in likely significant cumulative effects. Cumulative effects are the effects arising from the addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

A preliminary assessment of potential cumulative effects on the environment is facilitated via the Source-Pathway-Receptor (SPR) model which is a multi-step process. The SPR methodology is a tool that ensures the most cautious means of assessment at the preliminary stages of a Proposed Development. The use of this tool ensures that all possible impacts are identified at a very early stage thus enabling further studies, mitigation measures or ameliorative actions to be put in place. The inherent use of the precautionary principle within the SPR methodology means that all potential for environmental impacts can be identified at a preliminary stage without any need for detailed studies, but rather upon available desktop information.

It is imperative to make clear that not all projects within a study area are capable of combining with the Proposed Development to result in potential cumulative effects. In order for there to be a potential cumulative effect all three elements of the SPR elements need to be present. If there is no pathway or functional link (direct or indirect) between the Proposed Development and a receptor, there is no potential for effect. Additionally, if there is no receptor within the area of a potential impact, there is similarly no effect as it does not cause harm to the environment due to the lack of a receptor.

It is acknowledged that projects like the one proposed can have an impact on activity in a larger area that only the Site itself. There is no specific guidance available for a generic zone of influence to focus the assessment of existing development, applications in progress (Proposed Development), or applications granted permission (permitted development) that may result in cumulative effects. The research area has been established using expert judgement and based on the accessibility of data and taking into consideration the potential zone of influence from the potential for environmental effects of the Proposed Development.

It is acknowledged that projects like the one proposed can have an impact on activity in a larger area that only the site itself. Generally, the closer to the works, the greater the potential for impacts. The most significant environmental impacts are likely to be confined within 50-150 m of the Proposed Development . The search has been restricted to 500 m of the subject site; this distance within an urban environment is sufficient to capture any permitted development that may give rise to significant cumulative effects.

3.2.1 Related Development

The proposed Monksland Pipeline, via the permitted Monksland AGI, will provide a natural gas supply to the permitted Greener Ideas Facility. The Greener Ideas Facility was permitted in June 2019 under RCC Reg. Ref.: 18256, as revised by RCC Reg.

Ref. 22/234. The 110kV substation to serve the facility was permitted in January 2024 under ABP Reg. Ref.: ABP-317588-23.

These granted permissions at this facility include for 5 no. open cycle gas turbine (OCGT) electrical generating units, capable of generating up to 102MW of electricity for export to the national grid via the Athlone 110kV substation. The facility will also include an electrical annex building, a gas AGI (Monksland AGI), as well as all other associated works. The permitted 110kV 'Cuilleen' substation will connect to the Athlone 110kV substation via an underground grid connection.

RCC Reg. Ref.: 18/256

This permitted development RCC Reg. Ref.: 18/256 has been superseded by RCC Reg. Ref.: 22/234 and consists of the following:

Ten year planning permission for development consisting of the construction of a 100MW gas fired power plant with associated balance of plant, equipment and buildings including an Engine Hall Building with height of 17.20m (comprising 10 no. gas engines; ventilation units, cooling radiator units and 2 no. 27m stacks), an Electrical Annex Building (12.95m height), a 110kV Electrical Substation and Control Building (5.8m height) a Gas AGI including an Instrument House (4.9m height), an Administration Building of 6.1m height, a Workshop/storeroom of 6.45m height, a Tank Farm (consisting of a Diesel Oil Storage Tank (1500m3) , Urea Storage Tank (160m3), Waste Oil Tank (50m3), Pilot Oil Tank (2m3), Lube Oil Storage Tank (16m3), and a Lube Oil Run-Down Tank (16m3) an Engineering Building of 6.45m height, a Raw/Fire Water Storage Tank (1200m3), Treated Water Tank (15m3), Cooling Water Run-Down Tank (12m3), an underground Surface Water Attenuation Tank (348m3) and an underground wastewater holding tank (20m3). The development will also include an access road onto an existing Roscommon County Council owned road with access via the Monksland Industrial Estate; 13 no. car parking spaces; footpath; landscaping, 3m paladin security fence; and all other associated site development works including surface water and foul drainage required to facilitate the development. (The proposed power plant is a project type that requires an Industrial Emissions Licence from the Environmental Protection Agency in accordance with the requirements of the First Schedule to the Environmental Protection Agency Act 1992).

An Environmental Considerations Report relating to this activity, has been prepared by Mott MacDonald Consultants et. al. dated May 2018 and is available on the Roscommon County Council Website. The Final Grant of Permission for this permitted development is dated 14th June 2019.

RCC Reg. Ref.: 22/234

The relevant permitted development consists of the following:

Permission for development consisting of revisions and alterations of the permitted development of a gas fired power plant under Planning Register Reference PD/18/256. The revisions and alterations relate to the design of the gas fired power plant and will include a change to the electrical output of the power plant to 102MW with associated balance of plant, equipment and buildings including: an engine hall building with a height of 16.9m, (comprising 5 no. gas engines and ancillary infrastructure), an electrical annex building with a height of 18.7m; A workshop building with a height of 5.1m; An administrative building with a height of 6.1m; A tank farm building with a height of 5.7m; A security hut with a height of 3.3m; An exhaust stack with a height of 28.0m; A gas AGI including an instrument kiosk with a height of 4.9m and an analyser

kiosk with a height of 2.9m; 2 no. storage containers, each 2.6m in height, radiator coolers with height of 8.5m; Tanks including 2 X diesel oil storage tanks (volume of 1860m3 combined); SCR urea tank (73m3) ; Lube oil storage tank (3m3); Lube oil maintenance tank (26m3); Pilot oil tank (26m3); Fire water storage tank (563m3); Waste oil effluent tank (16m3); Underground surface water attenuation tank (590m3). The revised proposal will involve a revised red line site boundary to provide for drainage and other works within the adjacent roadway. The development optimises the same access permitted under PD/18/256 and includes 12 no. number parking spaces, footpaths, landscaping; fencing and all other associated site development plant and equipment and other works including surface water and foul wastewater drainage, all on site 1.8 hectares in size at Monksland, Athlone, Co. Roscommon.

An Environmental Considerations Report relating to this activity, has been prepared by Tobin Consulting Engineers et. al. dated May 2022 and is available on the Roscommon County Council Website. The Final Grant of Permission for this permitted development is dated 22nd September 2022.

ABP Reg. Ref.: ABP-317588-23.

The relevant permitted development consists of the following:

The proposed Cuillean substation comprises:

- One no. control building (126sqm) and internal 15kV underground cable,
- One no. 15/110kV transformer (TRAFO) compound with concrete blast wall, and associated equipment,
- One no. diesel generator,
- A 2.6m palisade fence and 1.4m high post and rail fencing, 2 no. gated accesses to the substation, lamp posts, lightning masts, security cameras and poles, and
- Use of the access road to the Gas Fired Peaker Power Plant (under construction).

The sub-station will be connected to Athlone 110kV sub-station via approximately 1.95km, 110kV single circuit underground connection (UGC). The UGC will be laid principally by open trench construction technology. The standard trench is 825mm wide by 1,325m deep with variations to adapt to road bridge, service crossings etc. Approximately 0.5km of the UGC will be underneath public land to the north west and south east of the M6 motorway and the remainder under public roads. The c.90m of the UGC under the M6 motorway will require Horizontal Directional Drilling (HDD), with 2 no. temporary drilling pits, located immediately north west and southeast of the M6 motorway at the crossing point. The drilling pits will comprise a temporary work area with equipment and 2m high HERAS fencing. HDD works under the motorway will not require the removal of existing semi-mature trees on either side of the motorway. The UGC route will consist of a trench containing 3 no. 160mm diameter HDPE power cable ducts, 2 no. 125mm diameter HDPE communications ducts and a 63mm diameter Earth Continuity Duct, along with associated cable joint bays, link boxes and communication chambers. The development will be integrated with the Athlone sub-station via a new electrical equipment bay to be situated within the substation site.

Figure 3.1 below illustrates the UCG route between the permitted Cuilleen 110kV substation and existing Athlone 110kV substation, and the HDD crossing location beneath the M6. The UCG routes north via the Monskland Industrial Park road network, then routes east following the R362, finally turning west along the L2047 to terminate at the Athlone 110kV substation. The HDD crossing will be undertaken in the lands

north of the R362 overpass of the M6. This crossing is located c. 0.9km northeast of the proposed development trenchless crossing of the M6. There is no overlap between the UCG route and proposed pipeline route, or the HDD M6 crossing and proposed trenchless crossing of the M6.

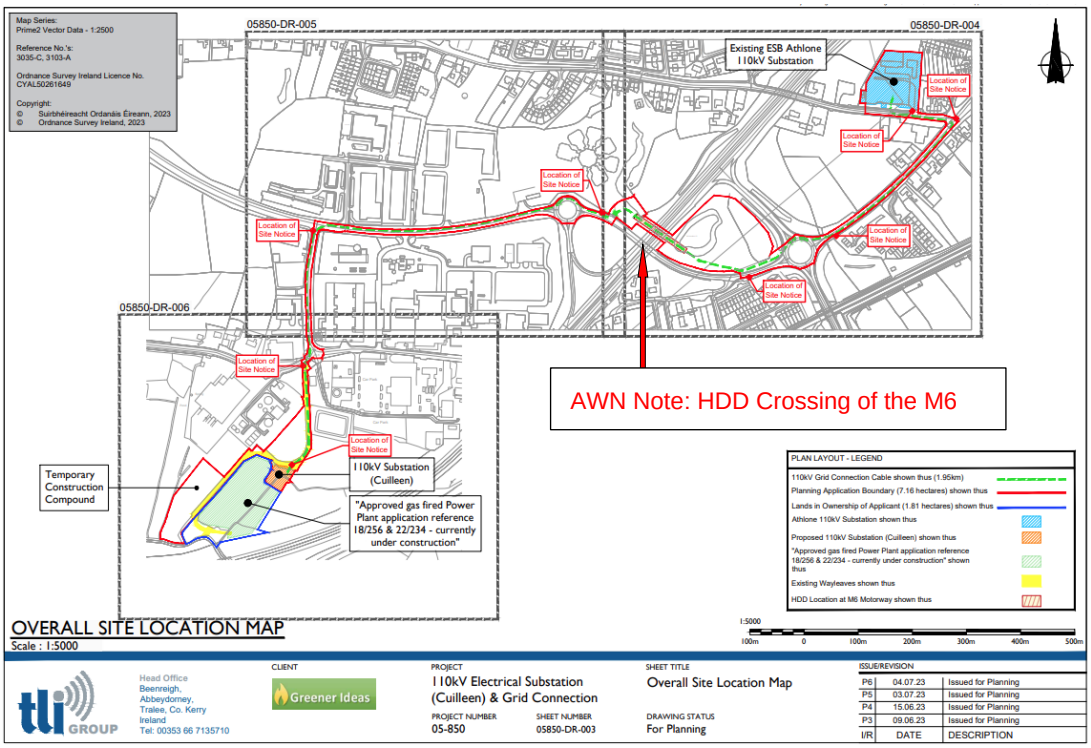

Figure 3.1 *Location of the UCG Route and HDD Crossing (Source: TLI Group, Drawing No. 05850-DR-003)*

An Environmental Impact Assessment Screening Report relating to this activity, has been prepared by WS Atkins Ireland Limited et. al. dated July 2023 and is available on the Cuilleen 110kV Substation website[1]. The Final Grant of Permission for this permitted development is dated 16th January 2024.

3.2.2 Other Existing and/or Approved Projects within the Surrounding Area

The identification of relevant, existing, and approved developments follows a two-fold approach. Firstly, a comprehensive search is undertaken to identify all developments within the vicinity of the Proposed Development site. Subsequently, a review of the magnitude, size, scale, location and current status of these developments is undertaken to assess their potential to contribute to significant cumulative effects. This secondary stage is conducted in alignment with the 2017 guidance from the European Union (EU), which underscores the necessity to focus on effects that are either inherently significant or possess the potential for significance. This comprehensive review is crucial in the context of assessing the potential cumulative effects of a proposed project. It aids in gauging the extent to which these existing and future undertakings might, interact with the Proposed Development, and allow for the exclusion of insignificant developments from any further consideration. This strategic

[1] 110kV Electrical Substation (Cuilleen) (cuilleen110vsubstation.ie)

approach ensures that resources are not expended on negligible or inconsequential effects.

The initial stage of this process is facilitated through the utilisation of the planning search tools listed below which collectively hold a comprehensive inventory of planning applications, which systematically generated a comprehensive list of relevant planning permissions granted within the immediate environs of the Proposed Development. A combination of online mapping tools was used for this search including:

- The Department of Housing, Local Government and Heritage EIA Portal[2]
- An Bord Pleanála Map Search[3]
- My Plan National Planning Application Map Viewer[4]

Appendix A documents the relevant planning history within the vicinity of the subject site. This list, Appendix A, it is not intended to be an exhaustive list of all developments, the intent is to provide the competent authority, and the public, with context for their EIA determination by outlining the relevant existing or permitted development that could give rise to likely significant cumulative effects in combination with the Proposed Development. The consideration of likely significant cumulative effects has been considered as part of the impact assessments within Section 5 of this report.

The review of the online planning tool noted a large number of insignificant small extensions, changes of use, advertisements, retention and other minor alterations to sites within the surrounding area. These permissions omitted from the list of permissions as they are for established business and residences within the vicinity of the development. These have been, where relevant, considered as a part of the overall project impact.

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

3.3 USE OF NATURAL RESOURCES (LAND, SOIL, WATER, BIODIVERSITY)

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

Land and Soil

The subject site is 12.3 hectares and currently exists as a mix of greenfield agricultural land, public roadways, lands currently under construction, and temporary construction areas. There will be temporary disruption to agricultural lands during construction, however site lands will be reinstated following construction to their current land uses.

The Proposed Development will require the excavation and disturbance of soils and stone materials for the purposes of site clearance and levelling, laying of new pipeline, along with access. Quantities of excavated material have been estimated by Fingleton

[2] https://www.gov.ie/en/publication/9f9e7-eia-portal/
[3] https://www.pleanala.ie/en-ie/Map-search
[4] https://www.myplan.ie/national-planning-application-map-viewer/

White and are outlined in Table 3.1 below. Suitably excavated material, including topsoil will be retained on site for use as backfill and landscaping. Should excavated material need to be removed from site it will be taken for appropriate offsite reuse, recovery, recycling and / or disposal.

Table 3.1 *Approximate Quantity of Material to be Excavated*

Works Area	Quantity (m^3)
Pipeline (in field)	865
Pipeline (in road)	1,520
Hot Tap and Pigging Compound	456

Should waste soils be encountered on site, all waste soils shall be classified as inert, non-hazardous or hazardous in accordance with the EPA's Waste Classification Guidance – List of Waste & Determining if Waste is Hazardous or Non-Hazardous document (dated 1st June 2015) to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility. Materials that can be reused as a by-product offsite will be notified to the EPA as a by-product. This ensures that waste and other materials removed from the site will have no significant effect on the environment.

Water Use

The construction of the scheme will not use such a quantity of water to cause concern in relation to significant effects on the environment. During construction of the scheme, water will only be required for construction prefab office and welfare facilities, this will be provided by either tanker or temporary connection to the public mains by agreement between the Main Contractor and Uisce Éireann. The commissioning phase will necessitate the use of approximately 77,000 litres of water for use in hydrostatic testing.

Once the development is completed it will be hydrostatically tested to prove the strength and integrity of the pipeline. Following this, once the development is operational there will be no requirement for water.

Biodiversity

Investigations into the implications on existing biodiversity including species and habitats has been undertaken through the Appropriate Assessment (AA) Screening Report, Natura Impact Statement, and Ecological Impact Assessment (EcIA) (Moore Group, 2024a, 2024b, 2024c), and Bat and Otter Survey Report (O'Donnell Environmental, 2024) included with the application submission.

The ecological value of the site was assessed in the EcIA following the guidelines set out in the Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment (2019) and according to the Natura Scheme for evaluating ecological sites (after Nairn & Fossitt, 2004). Judgements on the evaluation were made using geographic frames of reference, e.g. European, National, Regional or Local.

Due cognisance of features of the landscape which are of major importance for wild flora and fauna, such as those with a "stepping stone" and ecological corridors function, as referenced in Article 10 of the Habitats Directive were considered in this assessment.

Following a detailed literature review, desktop assessment and field survey the footprint of the proposed development site can be categorised into the following habitat types:

- Wet grassland (GS4)
- Improved agricultural grassland (GA1)
- Buildings and artificial surfaces (BL3)
- Depositing lowland rivers (FW2)
- Drainage ditches (FW4)
- Spoil and bare ground (ED2)
- Mixed broadleaved woodland (WD1)
- Hedgerows (WL1)
- Scrub (WS1)

The Cross River is the habitat of highest ecological value, acting as an important corridor for wildlife, and an important habitat in itself; it is classed as of high local value. The tall hedgerows/treelines and patches of woodland bordering the fields south of the Cross River provide potential habitat for wildlife, and are of moderate local value. Other habitats are considered to be of low local value.

The EcIA (Moore Group, 2024b) identified no badger setts in the study area and no potential for badgers on the site. The field boundaries were surveyed and no setts were recorded.

O'Donnell Environmental (2024) surveyed from ground-level all trees within and proximal to the proposed development for the suitability for roosting bats. The survey was non-destructive and no roosting bats were encountered during survey and no unoccupied roosts which contained signs of bats were encountered. It is considered unlikely that any tree on-site has potential for significant roosting much as maternity, but occasional roosting by individual or small number of bats is likely to occur, at least occasionally. Four trees displayed 'PRF-I' suitability for supporting individual or small numbers of bats, generally characterised by sub-optimal roosting features. Over time, the value of many of these roosting features to bats may increase.

O'Donnell Environmental (2024) surveyed two structures, consisting of the M6 bridge and railway bridge are present proximal to the proposed development that display suitability for roosting bats. These structures were surveyed from ground-level using binoculars and torches to identify possible roosting locations. The pre-cast concrete forms (M6 bridge) provide limited suitability for roosting bats. No artificial bat roosts are present within the bridge. The railway bridge is well-maintained and appears recently well-pointed with no obvious gaps or crevices present. However, features of roosting suitability cannot be discounted entirely. Based on available information, the railway bridge presents 'negligible' suitability for roosting bats following Collins (2023).

O'Donnell Environmental (2024) surveyed the Cross River and surrounds, no evidence of Otter holts was identified along the watercourses surveyed as part of the proposed development. The primary watercourse, the Cross River, is largely characterised by steep banks comprised of rank grassland and dense vegetation extending right up to the riverside. Additionally, the Cross River appears to periodically inundate the surrounding area during periods of inclement weather. Considering the riverbank structure and periodic high-water levels resulting in inundation of the riverbanks, the portion of the Cross River surveyed as part of the proposed development is considered generally unsuitable for the formation of Otter holts.

Multiple mammal tracks were identified along the mammal underpass associated with the M6 bridge and a drainage channel associated with the Cross River, of which a portion were attributed to Otter. Scat in the form of Otter spraint was identified in two locations: along the mammal underpass and along the Cross River, both of which are located outside the development boundary.

Despite the lack of evidence of underground dwellings attributed to Otter, the Cross River is considered to provide suitable foraging and commuting habitat for Otter and the species is likely to regularly occur here.

Overall, the ecological surveys established that there are no recorded rare plants, no badger setts, underground dwellings or holt for otter, and no known roosting bats.

3.4 PRODUCTION OF WASTE

Construction Phase

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

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

For agricultural land it is anticipated that the majority (80-90%) of the excavated soil will be reinstated as backfill. For Pipeline in the road, it is anticipated that 30-40% of the excavated material will be reinstated as backfill. Any remaining excavated soil will be removed from site and disposed of in accordance with regulations by the contractor.

If material is removed off-site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Regulation 15 (By-products) (Previously Article 27 and referred to as Article 27 in this report) of S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020, which requires that certain conditions are met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received. The potential to reuse material as a by-product will be confirmed during the course of the excavation works, with the objective of eliminating any unnecessary disposal of material.

If any soils/stones are imported onto the site from another construction site as a byproduct, this will also be done in accordance with Article 27. Article 27 will be investigated to see if the material can be imported onto this site for beneficial reuse instead of using virgin materials.

It should be noted that until final materials and detailed construction methodologies have been confirmed it is difficult to predict with a high level of accuracy the construction waste that will be generated from the construction of the Proposed

Development as the exact materials and quantities may be subject to some degree of change and variation during the construction process.

Operational Phase

There will be no regular waste generated during the operational phase of the Proposed Development .

3.5 POLLUTION AND NUISANCES

There are potential short-term nuisances such as dust and noise, as well as the potential for pollution of surface water associated with construction activities.

An Outline Construction Environmental Management Plan (oCEMP) has been prepared by AWN Consulting (2024) and submitted with the S39A documentation. The oCEMP outlines construction phase mitigation and management of air quality control (dust), noise, soil management, surface water runoff and traffic that will be undertaken during the construction phase. The oCEMP (AWN, 2024) draws on best practice guidance on the prevention of pollution during development projects including but not limited to: *Construction Industry Research and Information Association (CIRIA), Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532); Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016); Construction Industry Research and Information Association (CIRIA) Environmental Good Practice on Site (4th edition), (C741); Enterprise Ireland Best Practice Guide, Oil Storage Guidelines (BPGCS005);* and *Guidelines for the crossing of watercourses during the construction of national road schemes (NRA; 2008).*

The oCEMP will be updated by the appointed construction contractor(s) prior to commencement of construction and will be maintained during the construction phase. The oCEMP will cover all potentially polluting activities and include an emergency response procedure. All personnel working on the construction site will be trained in the implementation of the plan and procedures. After the implementation of the oCEMP, pollution and nuisances during construction are not considered likely to have the potential to cause significant pollution and nuisance effects.

3.6 RISK OF MAJOR ACCIDENTS AND/OR DISASTERS

The 2014 revision to the EIA Directive introduced the requirement for an assessment of the risk of major accidents and disasters into the scope of an EIA. As explained the recital of the Directive: “In order to ensure a high level of protection of the environment, precautionary actions need to be taken for certain projects which, because of their vulnerability to major accidents, and/or natural disasters (such as flooding, sea level rise, or earthquakes) are likely to have significant adverse effects on the environment. For such projects, it is important to consider their vulnerability (exposure and resilience) to major accidents and/or disasters, the risk of those accidents and/or disasters occurring and the implications for the likelihood of significant adverse effects on the environment.”

Landslides, Seismic Activity and Volcanic Activity

In general, risk of landslides in Ireland is considered to be low, as the country is not located in a region with high seismic activity or large mountain ranges. Landslides are more common in unconsolidated material than in bedrock, and where the sea

constantly erodes the material at the base of a cliff landslides and falls lead to recession of the cliffs. Landslides have occurred in Ireland in recent years in upland peat areas due to disturbance of peat associated with construction activities. The landslide susceptibility map (GSI spatial map viewer) identifies areas which are subject to landslides and is measured from low to high. The landslide susceptibility map considers the location of landslides and what causes them (slope, soil type and the impact of the flow of water). Based on the GSI spatial map viewer, the Proposed Development site is not in an area susceptible to landslides, with a GSI Landslide Susceptibility Classification of Low.

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

In Ireland, seismic activity is recorded by the Irish National Seismic Network. The Geophysics Section of the School of Cosmic Physics, Dublin Institute for Advanced Studies, has been recording seismic events in Ireland since 1978 (www.dias.ie). This network consists of several seismometers that are located throughout Ireland. Seismic activity and earthquake risk in Ireland are generally considered to be low. This is because Ireland is located on the western edge of the Eurasian Plate, which is a tectonic plate that is not known for its seismic activity. However, earthquakes can still occur in Ireland, although they are typically small and have little impact. There is a very low risk of seismic activity to the Proposed Development and Masterplan site. This means that there is less than a 2% chance of potentially-damaging earthquake shaking in the next 50 years.

Flooding/Sea Level Rise

A Flood Risk Assessment has been prepared by JBA Consulting for the Proposed Development and has been submitted with the CRU application. With reference to the FRA (JBA, 2024):

- The site is located within Flood Zone A, B and C, signifying varying risk from fluvial flooding. Pluvial flood potential may arise from localised depressions in the ground at the site but is not considered a significant risk. Coastal flooding was determined to be negligible, due to the location of the site and no significant risks groundwater risks noted from historical data.
- The Justification Test has been applied and passed as part of the FRA process.
- The proposed pipeline will be located underground and following construction, ground levels will be returned to their original state. Due to the location of the pipeline and no risk of groundwater flooding identified at the site, potential impacts from flooding to the pipeline are considered negligible.
- There will be no change to flood risk as a result of the development because ground conditions will be restored to their original state ad the floodplain will not be amended in terms of storage or conveyance.

Major Accidents/Hazards

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

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

The Proposed Development is not a development to which the provisions of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 will apply. There are no Notified Seveso Establishment listed within the general vicinity of the Proposed Development site. Therefore, there are no implications for the Proposed Development in terms of the Seveso Directive or COMAH Regulations.

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

Flash Fire, Jet Fire, Vapour Cloud Explosion following Natural Gas Release at the Gas Pipeline

A flash fire can occur following a loss of containment of natural gas from the gas transmission pipeline, which results in a flame which passes through the mixture at less than sonic velocity such that explosion overpressures are negligible. A flash fire may be caused by releases at high or low pressure into an open, unconfined area which contacts an active source of ignition.

A jet fire can occur following a loss of containment of natural gas from the gas transmission pipeline, via a source such as a leak or failure of flanged pipework joints, pipework or another asset which contacts an active source of ignition.

A vapour cloud explosion (VCE) may occur from the loss of containment of natural gas, which does not ignite immediately and may form a cloud of flammable material, depending on the conditions of the release. If this cloud contacts an active source of ignition, a VCE can result and generate potentially harmful overpressures.

The Health and Safety Authority's (HSA) Guidance on technical land-use planning advice (HSA, 2023) document provides guidance on developments with the potential to cause major accidents. Table 3.2 details the potential scenario's following gas transmission pipeline rupture and their calculated likelihoods.

Table 3.2 *Potential major accident scenarios following natural gas pipeline rupture and their associated likelihoods.*

Potential Major Accident following Pipeline Rupture	Frequency (/ year)
Jet fire / fireball	2.6×10^{-6}
Flash fire	9.36×10^{-6}
Vapour Cloud Explosion	1.40×10^{-5}

Table 3.3 below provides a qualitative description of the frequency range following relevant guidance provided by *Centre for Chemical Process Safety (CCPS) (2009), Guidelines for Developing Quantitative Safety Risk Criteria, AIChemE, New York*. The frequency for each of the potential major accident scenarios in Table 3.2 above are considered to be *Very Unlikely*.

Table 3.3 *Qualitative description of potential major accident scenarios*

Frequency Category	Description	Frequency Range (/year)	Description
1	Extremely unlikely	< 1 x 10^{-6}	Similar event has not yet occurred in industry and would be a remote possibility
2	Very unlikely	1 x 10^{-6} to 1 x 10^{-5}	Similar event has not yet occurred in our industry
3		1 x 10^{-5} to 1 x 10^{-4}	Similar event has occurred somewhere in our industry
4	Unlikely	1 x 10^{-4} to 1 x 10^{-3}	Similar event has occurred somewhere within our company
5		1 x 10^{-3} to 0.01	Similar event likely to occur within lifetime of 10 similar facilities
6	Possible	0.01 to 0.1	Likely to occur once or twice in the lifetime of the facility
7		0.1 to 1	Likely to occur several times in the lifetime of the facility
8	Probable	> 1	Common occurrence (at least annually) at the facility

Minor Accidents/Leaks

There is a potential impact on the receiving environment as a result of minor accidents/leaks of fuel/oils during the construction. However, the implementation of the mitigation measures set out in this report (see Section 5, below) and the oCEMP (AWN, 2024) will ensure that the residual effect on the environment is imperceptible.

3.7 RISKS TO HUMAN HEALTH

The EC 2017 Guidance on the preparation of the Environmental Impact Assessment Report outlines that human health is a very broad factor that is be highly project dependent. The guidance states: *The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study.*

The EPA guidance explains that the scope of population and human health is project dependant but should consider significant impacts likely to affect aspects such as: convenience (expanded range of transport options); nuisance/ disturbance from lighting; displaced settlement patterns (residential); employment opportunities; settlement patterns; land use patterns; access for tourism, amenity, health impacts and/or nuisance due to noise, dust or water pollution; and health and safety.

There are scattered rural one-off residential developments located along the R446 and L2027 roads which the proposed pipeline will route along, and additionally the Westwood residential estate. The more densely populated Monksland is located north of the site, and Athlone is located northeast of the site. The proposed pipeline will route past two schools, Coláiste Chiarán, located off the R446, and Summerhill National School, located off the L2027.

The characteristics of the Proposed Development , in terms of the risks to human health (for example, due to water contamination, air pollution or potential major accident scenarios discussed in Section 3.7, above) have been considered. The primary potential impacts of the Proposed Development on human health would be the potential for increased air pollution due to dust and traffic emissions, noise, or pollution of groundwater/watercourses as a result of the Proposed Development during the construction phase. Once the Proposed Development is operational there will be no potential risks to human health.

The oCEMP includes best practice construction methodologies for the control of dust generation, traffic, and noise and vibration, as well as the management of impacts on groundwater or surface water during the construction phase. Any impacts associated with construction dust generation, traffic, and noise will be temporary in duration (lasting no more than 12 months), not significant and localised.

There will be no negative impact on local parks. There is no likelihood of significant effects on local tourism or shopping amenities as a result of the Proposed Development.

Geological Survey of Ireland (GSI) data indicates that the site does not lie within a drinking water protection area and as such there is no potential for impact on water supply. The proposed mitigation measures during the construction phase, including the implementation of the oCEMP will ensure that there are no impacts on groundwater, run-off water quality or flow, or the stormwater mains.

4.0 LOCATION AND CONTEXT OF THE PROPOSED DEVELOPMENT

4.1 EXISTING AND APPROVED LAND USE

The development site is located within the Roscommon County Council local authority area, in the townlands of Crannagh More, Crannagh, Crannagh Beg and Monksland, Athlone, Co. Roscommon. The development site is predominantly existing public roadway and greenfield agricultural land and is located in a rural area. The subject site is located entirely within unzoned rural lands i.e. RCC have not outlined any particular types of development that would be appropriate or inappropriate for the Proposed Development lands.

The proposed pipeline is generally surrounded by agricultural lands to the east, west and south. There are a number of dwellings along the R446 and L2027 (approx. 34) of which are in close proximity (within 50 m) of the site, other sensitive receptors include the Summerhill National School, Coláiste Chiaráin, and Drum Community Centre. To the north there is a concentration of industrial lands, including Monksland Industrial Park, Monksland Business Park and Daneswell Business Park, as well as a number of residential estates.

4.2 RELATIVE ABUNDANCE, AVAILABILITY, QUALITY AND REGENERATIVE CAPACITY OF NATURAL RESOURCES IN THE AREA AND ITS UNDERGROUND

4.2.1 Geology and Hydrogeology

Mapping from the Geological Society of Ireland (GSI, 2024) indicates the bedrock underlying the site is part of the Waulsortian Limestones (code CDWAUL) and made up of massive unbedded lime-mudstone.

The GSI/ Teagasc (2024) mapping database of the quaternary sediments in the area of the subject site indicates the principal subsoil types along the pipeline route comprise gravels derived from limestones, till derived from limestones and alluvium.

The GSI (2024) National Bedrock Aquifer Map classifies the bedrock aquifer beneath the subject site as a 'Ll, Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones'. The GSI currently classifies the aquifer vulnerability in the region as Moderate (M) throughout the site.

The Proposed Development is predominately within the 'Athlone West' (EU Code: IE_SH_G_018) groundwater body and the northernmost portion of the pipeline route, where the pipeline will tie into the Monskland AGI, is within the 'Industrial Facility (P0110-01)' (EU Code: IE_SH_G_018) groundwater body (Figure 4.1). The most recent WFD groundwater status for the Athlone West groundwater body (2016-2021) is 'Good', and the WFD risk score is 'Not at risk'. The most recent WFD groundwater status for the Industrial Facility (P0110-01) groundwater body (2016-2021) is 'Good', and the WFD risk score is 'review'.

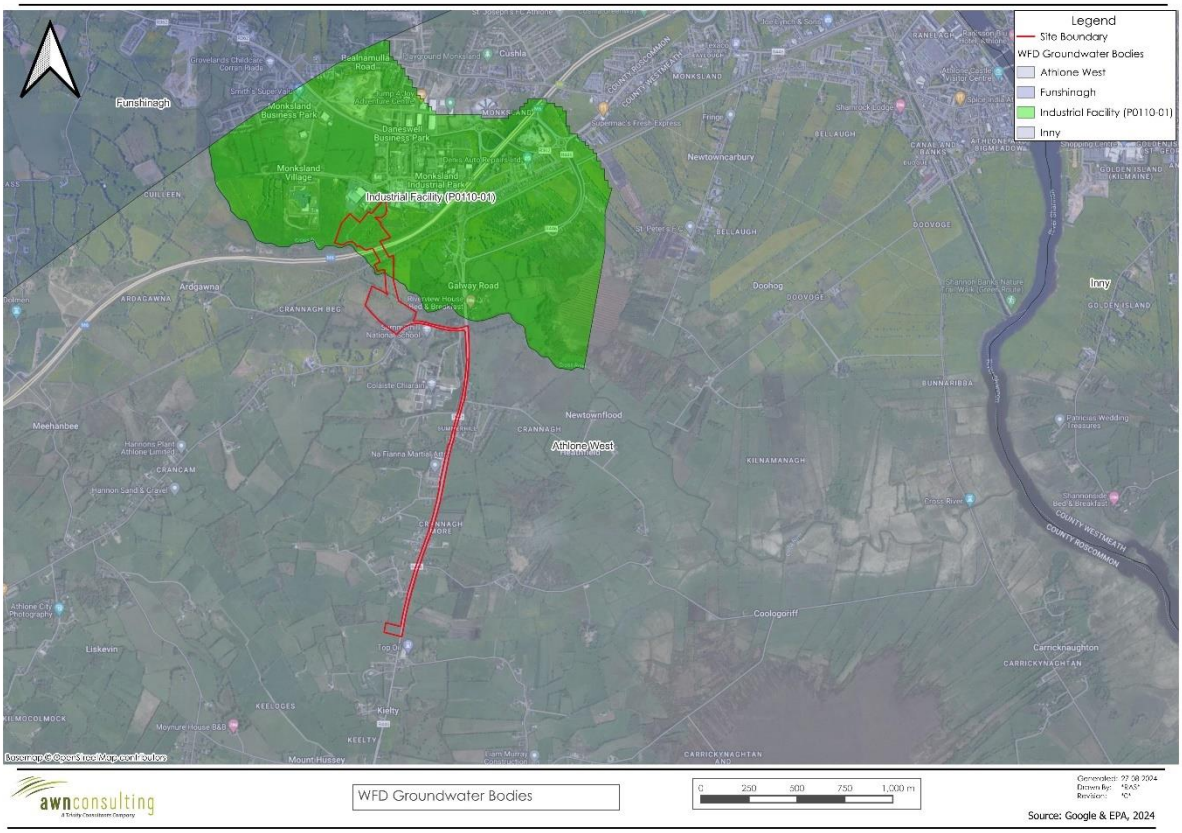

Figure 4.1 *WFD Groundwater Bodies underlying the Proposed Development*

The results of this assessment under the WFD provided by the EPA have been used to determine the current water body status of the aquifer for the Proposed Development site. The current water body status has been considered in the examination of the likelihood of significant effects on the relevant groundwater bodies having regard to potential and indirect direct impacts arising from the Proposed Development during the construction.

The GSI Well Card Index is a record of wells drilled in Ireland, water supply and site investigation boreholes. It is noted that this record is not comprehensive as licensing of wells is not currently a requirement in the Republic of Ireland. This current index

does not show any wells drilled or springs within the site. There is one listed borehole within the Proposed Development boundary (2023NWW005) the GSI Well Card Index notes that this was undertaken by IGSL in 2000, it is highly unlikely that this well was ever developed into a groundwater well due to; work undertaken by IGSL (a geotechnical company), the shallow depth 3.6m, GSI also notes “Access problems due to wet ground conditions”, and there is a no above ground well infrastructure noted during site visits. A further two boreholes listed under unknown (2023NWW003) and agricultural and domestic (2023NWW004) there is no above ground well infrastructure; are potentially within the boundary as they are mapped to 1km accuracy. However these are more likely associated with the nearby dwellings or community centre (outside the proposed development). The boreholes and dug wells within a 1km vicinity of the site are shown in Figure 4.2.

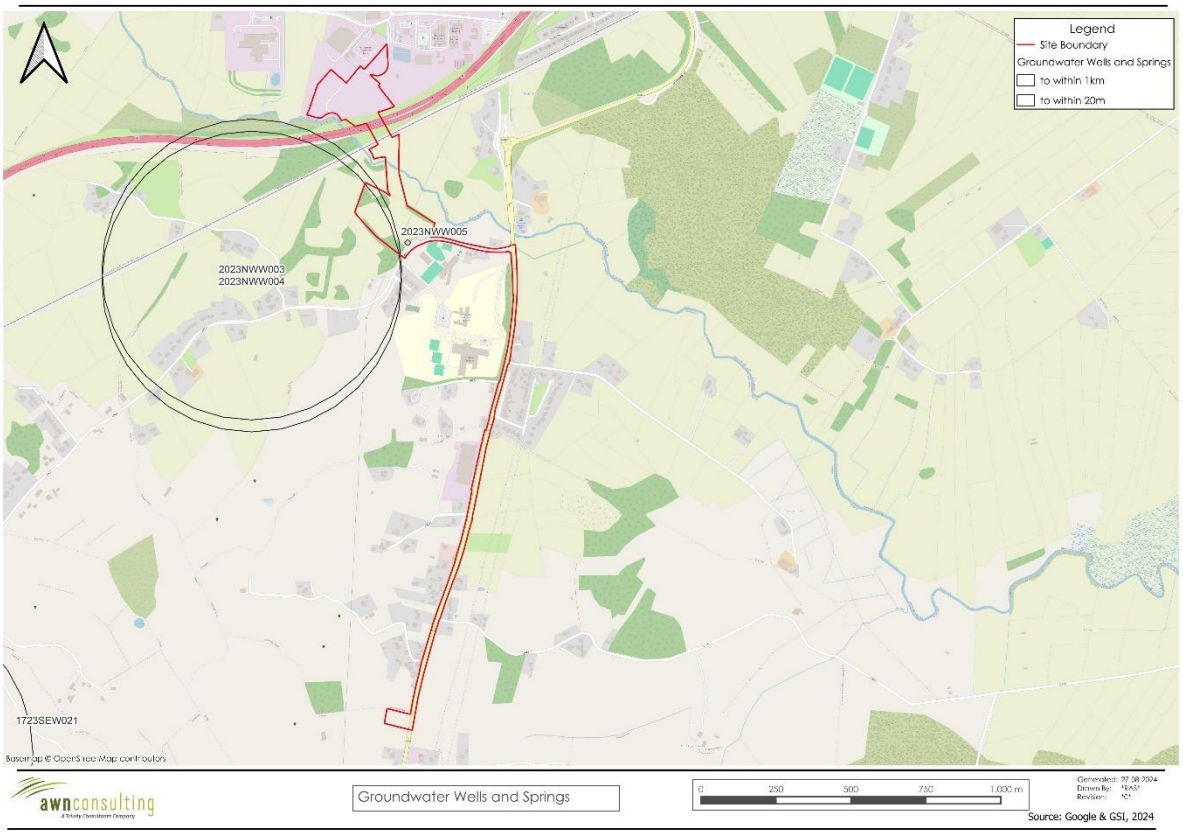

Figure 4.2 *Wells and Springs within the vicinity of the Proposed Development*

The site is not located near any public groundwater supplies or group schemes. There are no groundwater source protection zones in the immediate vicinity of the site.

There are no sensitive soil receptors, no identified areas of geological heritage or groundwater supplies in the vicinity of the site boundary.

The importance of the soil and geology attributes for the Proposed Development site is defined as 'medium' based on the TII methodology (2009) criteria for rating site attributes. This is due to the following reasons: the attribute has a medium quality, significance or value on a local scale; Degree or extent of soil contamination is moderate on a local scale; and the volume of peat and/or soft organic soil underlying route is moderate on a local scale. The importance of the hydrogeological attributes for the Proposed Development site is defined as 'medium' based on the TII methodology (2009) criteria for rating the importance of hydrogeological attributes.

This is due to the locally important aquifer. The sensitivity of the soil and geology hydrogeological environment is defined as 'medium'.

4.2.2 Hydrology

The Proposed Development is located within the National River Basin District and lies within the Upper Shannon WFD Catchment (Id 26G) and Hydrometric Area (Id 26) and (EPA, 2024). The EPA river network (EPA maps) and site inspection show that the nearest surface water receptor is the Cross River (Cross [Roscommon], EU_CD: IE_SH_26C100300, EPA_Code: 26C10), and the Newtownflood Stream (EU_CD: IE_SH_26C100400 EPA_Code: 26N15) that flows to the Cross River. The Cross River is a salmonid tributary of the River Shannon. The Cross River is a trout fishery and provides a valuable spawning and nursery habitat for brown trout. The Proposed Development site has a direct hydrological connection to Cross River and its tributaries, which flow to the River Shannon and the designated sites located therein; the River Shannon Callows Special Area of Conservation (SAC), Middle Shannon Callows Special Protection Area (SPA), and the River Shannon Callows proposed Natural Heritage Area (pNHA). Further to the mapped water courses, there is are 2 no. unmapped local drainage ditch within the agricultural lands that intersects with the proposed pipeline, this ditch is a tributary of the Cross River (Chainage 2065 to 2075, and Chainage 2420 to 2430). The pipeline will be installed through these tributaries of the Cross River via open cut flume watercourse crossing.

Additionally, there are 2 no. piped/culverted unmapped local drainage ditch. The first is a tributary of the Newtownflood Stream (Chainage 015 to 020) that culverted within the R446 that the proposed pipeline will pass under. The second a tributary of the Cross River (Chainage 2430 to 2435) that is piped/culverted within the Greener Ideas Facility. These tributaries are piped/culverted at the point of the proposed pipeline, the pipeline will not require any an instream works and will be installed via a typical service crossing.

The Proposed Development site, the rivers as mapped by the EPA, and the unmapped local drainage as surveyed by AWN during site inspection are shown on Figures 4.3, and 4.4 below.

Figure 4.3 *Regional hydrological environment in the vicinity of the Proposed Development (Source: EPA)*

Figure 4.4 *Local hydrological environment in the southern portion of the Proposed Development site*

The Environmental Protection Agency (EPA, 2024) on-line mapping presents the Water Framework Directive (WFD) status information for water bodies in Ireland. The Cross River (EU Code IE_SH_26C100300) has a WFD Status 2016-2021 of 'Moderate' and a WFD Risk Score of 'At risk'. The Newtownflood Stream (EU Code: IE_SH_26C100400) has a WFD Status 2016-2021 of 'Moderate' and a WFD Risk Score of 'At risk'. This moderate status is related to its biological (invertebrate) status, the supporting chemistry conditions are classified as 'Pass'. Hydromorphology due to channelisation and extractive industries (peat) have been identified as significant amongst other pressures in this water body. The results of this assessment under the WFD provided by the EPA have been used to determine the current water body status of the receiving waters for any discharge from the Proposed Development site. The current water body status has been considered in the examination of the likelihood of significant effects on water quality in the Cross River having regard to potential direct impacts from surface water arising from the Proposed Development during the construction.

Given the nature of the proposed construction works and the subject site's proximity to the Cross River, due to the risk of surface water and dust entering the Cross River directly, out of an abundance of caution it is considered that there is an indirect hydrological pathway to designated conservation sites located within the River Shannon, downstream of the Cross River, namely, River Shannon Callows (SAC & pNHA) and Middle Shannon Callows SPA.

The sensitivity and importance of the hydrology attributes for the Proposed Development site is defined as 'very high' based on the TII methodology (2009) criteria for rating the importance of hydrology attributes. This is due to the fact that the direct connection to surface water body ecosystem protected by national legislation (River Shannon Callows SAC, Middle Shannon Callows SPA, and the River Shannon Callows pNHA).

4.2.3 Biodiversity and Areas of Conservation

The potential ecological impacts of Proposed Development have been considered in terms of the sensitivity of the location through the Appropriate Assessment (AA) Screening Report, and Natura Impact Statement prepared by Moore Group (2024a, 2024b) and included with the application documentation.

The Appropriate Assessment (AA) Screening Report, and Natura Impact Statement established the potential for source pathway receptor connectivity to European sites.

European sites that are located within a potential Zone of Influence of the Proposed Development are listed in Table 4.1 below.

Table 4.1 *European Sites located within the potential Zone of Influence[5] of the Proposed Development.*

Site Code	Site name	Distance (km)[6]
000216	River Shannon Callows SAC	1.55
000440	Lough Ree SAC	2.64

[5] All European sites potentially connected irrespective of the nature or scale of the Proposed Development.

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

004096	Middle Shannon Callows SPA	1.56
004064	Lough Ree SPA	2.61

The Lough Ree SAC (Site Code 000440) and the Lough Ree SPA (Site Code 004064) both lie 2.6km to the northeast. These two sites lie upstream of Athlone and upstream of the Cross River and its tributaries, relative to where the Proposed Development will pass underneath the river. Lough Ree is in a different WFD SubCatchment (Shannon[Upper]_SC_090). There is no S-P-R connectivity between the potential effects of the proposed pipeline development and Lough Ree SAC and SPA and they are therefore considered to be outside the Zone of Influence of the Proposed development and are screened out at Stage 1 Screening.

The nearest European sites to the Proposed Development are the largely overlapping River Shannon Callows SAC (Site Code 000216) and the Middle Shannon Callows SPA (Site Code 004096), 1.55km directly to the east.

4.3 ABSORPTION CAPACITY OF THE NATURAL ENVIRONMENT

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

The environmental sensitivity of the proposed location in respect of areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC have been assessed through the Ecological Impact Assessment (EcIA) and Appropriate Assessment (AA) and is relied upon for the purposes of this EIA Screening Report.

EPA maps (https://gis.epa.ie/EPAMaps/default) confirm that the development site is not located within or adjoining an Architectural or General Conservation Area; is not located within or adjoining a Native Woodland Trust; and is not covered by protected views, scenic routes or viewpoints.

The Record of Monuments and Places (RMP) was consulted in the Archives of the Department of Culture, Heritage and the Gaeltacht. There are no recorded archaeological monuments located within the site boundary. Outside of the site boundary there are six RMP sites within 500m of the Proposed Development ; five ringforts (RMP no. RO052-016---, RO052-017001, RO052-017002, RO052-018---, and RO052-019---) and one burnt mound (RMP no. RO052-030---).

5.0 TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS

This section sets out the likely significant effects on the environment of the Proposed Development. The quality, magnitude and duration of potential impacts are defined in accordance with the criteria provided in the *Guidelines on Information to be Contained in Environmental Impact Assessment Reports* (EPA 2022) these criteria are duplicated in Table 5.1.

Table 5.1 *Schedule of Impacts following EPA Guidelines*

Characteristic	Term	Description
Quality of Effects	Positive	A change which improves the quality of the environment

	Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative/Adverse	A change which reduces the quality of the environment
Describing the Significance of Effects	Imperceptible	An effect capable of measurement but without significant consequences
	Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
	Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
	Significant Effects	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound Effects	An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects	Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the Probability of Effects	Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Describing the Duration and Frequency of Effects	Momentary Effects	Effects lasting from seconds to minutes
	Brief Effects	Effects lasting less than a day
	Temporary Effects	Effects lasting less than a year
	Short-term Effects	Effects lasting one to seven years.
	Medium-term Effects	Effects lasting seven to fifteen years
	Long-term Effects	Effects lasting fifteen to sixty years
	Permanent Effects	Effects lasting over sixty years
	Reversible Effects	Effects that can be undone, for example through remediation or restoration
	Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Describing the Type of Effects	Indirect Effects (a.k.a secondary or Off-site effects)	Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative Effects	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
	'Do Nothing Effects	The environment as it would be in the future should the subject project not be carried out
	`Worst case' Effects	The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable Effects	When the full consequences of a change in the environment cannot be described
	Irreversible Effects	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost

	Residual Effects	The degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic Effects	Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of Sox and NOx to produce smog)

5.1 POPULATION AND HUMAN HEALTH

5.1.1 Construction Phase

Potential Impact

The construction phase of the Proposed Development will provide a limited amount of temporary employment of construction workers which will provide benefits for local businesses providing retail or other services to construction workers and potential additional employment in the area.

All construction areas, including the proposed temporary construction compounds, will be suitably fenced, and access to the site will be limited to authorised personnel in the interest of public health and safety. Safe working practices, in accordance with the relevant legislation, will be in place during to protect the workers and visitors to the construction site.

The potential impacts of the Proposed Development on population human health and populations would be nuisances such as increased air pollution (dust), noise, traffic, watercourses, and visual impact of the construction phase.

In the absence of mitigation measures the potential impacts during the construction phase on populations and human health are ***negative***, ***moderate,*** and ***temporary***.

Mitigation Measures

These potential brief to temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.1 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Land, Soil, Geology, Water (Hydrogeology and Hydrology) that will be implemented during the construction phase.

Section 5.3 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Air Quality, and Section 5.4 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Climate that will be implemented during the construction phase.

Section 5.5 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Noise and Vibration that will be implemented during the construction phase.

Section 5.8 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Traffic and Transportation that will be implemented during the construction phase.

These oCEMP measures will have resultant benefits with regard to populations and human health.

Residual Impact

The residual impact on populations and human health during construction is considered to be ***neutral, imperceptible*** and ***temporary***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of population and human health impacts during the construction phase. Therefore, a requirement for EIA does not arise.

5.1.2 Operational Phase

Potential Impact

There is limited potential for leaks or spills of petroleum hydrocarbons from during site maintenance activities during operation of the development as these materials are contained and controlled. The site is not located near any public groundwater supplies or group schemes.

Once the construction phase is complete, any disturbed road surface / agricultural grassland will be reinstated along the pipeline corridor. Thus, there will be little evidence of the proposed pipeline. Once the road surfaces and landscape in the surrounds of the proposed pipeline corridor has been fully reinstated, there will be little, if any evidence that the pipeline corridor exists.

During operation, the gas transmission pipelines will be buried underground and therefore there will be no emissions to atmosphere.

Due to the fact that the proposed gas transmission pipeline route will be located underground there are no operational noise impacts.

There are no permanent employees required for the operational phase there will be limited additional trips on the external roads network for maintenance traffic.

In the absence of mitigation measures the potential impacts during the operational phase on population and human health are ***neutral***, ***imperceptible,*** and ***long-term***.

Mitigation Measures

As the identified impacts with regard to population and human health during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impact

The residual impact on population and human health during operation is considered to be ***neutral, imperceptible*** and ***long term***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of population and human health impacts during the operational phase. Therefore a requirement for EIA does not arise.

5.2 LAND, SOILS, AND GEOLOGY

5.2.1 Construction Phase

Potential Impact

Potential for impacts to soil and its productive capacity

The construction phase involves site levelling, construction, and trench excavation, which require the removal of vegetation cover and the excavation of soil and subsoils.

The physical disturbance of the land, including earthworks and excavations, can lead to soil erosion and degradation of soil structure. The removal of vegetation cover and excavation of soil and subsoils can destabilise the land, making it more susceptible to erosion and reducing its productive capacity.

Heavy machinery used during construction can compact the soil, reducing its porosity and permeability. Compacted soil impedes water infiltration and root penetration, leading to increased surface runoff, higher erosion rates, and reducing its productive capacity.

In the absence of mitigation measures the potential impacts during the construction phase on land, soils, and geology with respect to soil and its productive capacity are ***negative***, ***slight,*** and ***temporary***.

Potential for soil contamination

There is a risk of soil contamination from potential leaks or spills of petroleum hydrocarbons and other pollutants during construction. Contaminants such as hydrocarbons can have long-lasting effects on soil health, reducing its suitability for agricultural use. Unmitigated leaks or spills of petroleum hydrocarbons, oils, paints, and cement may lead to contamination of soil, severely affecting its health and reducing its productive capacity. Contaminants such as hydrocarbons, which are known carcinogens in many animals and suspected to be carcinogenic to humans, can adversely impact soil and water quality.

Excavation activities can disturb previously contained pollutants in the soil, leading to contaminant mobilisation. If historical pollution is present, this can result in the spread of contaminants to groundwater and surface water, posing significant environmental risks. However, the greenfield areas of the Proposed Development site, currently in use as agricultural land, present a low risk of contamination. Similarly, the risk of encountering contaminated soil or aggregate in the roadways is also low. If any waste soil requires removal from site, it will be classified by an experienced and qualified environmental professional to ensure that the waste soil is correctly classified for transportation and recovery/disposal offsite.

The necessity for imported fill and material to provide a suitable bedding layer can introduce additional risks to construction. If the imported material is not properly vetted for compliance with environmental and regulatory standards, it may introduce new contaminants to the site. This could further degrade soil quality and pose risks to both the environment and human health.

In the absence of mitigation measures the potential impacts during the construction phase on land, soils, and geology with respect to soil contamination are ***negative***, ***slight,*** and ***temporary***.

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.1 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Land, Soil, Geology, Water (Hydrogeology and Hydrology) that will be implemented during the construction phase. The purpose of the oCEMP mitigation measures is to avoid or prevent what might otherwise have been significant adverse effects on the environment.

Residual Impact

The residual impact (after the implementation of the oCEMP mitigation measures) during the construction phase on land, soils, and geology with respect to soil and its productive capacity are ***neutral***, ***imperceptible,*** and ***temporary***.

The residual impact (after the implementation of the oCEMP mitigation measures) during the construction phase on land, soils, and geology with respect to soil contamination are ***neutral***, ***imperceptible,*** and ***temporary***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of land, soils, and geology during the construction phase. Therefore, a requirement for EIA does not arise.

5.2.2 Operational Phase

Potential Impact

There is limited potential for leaks or spills of petroleum hydrocarbons from site maintenance activities during operation of the development; unmitigated leaks or spills may lead to contamination of soil, groundwater or surface water. These pollutants such as hydrocarbons that are a known carcinogen (cause cancer) in many animals and suspected to be carcinogenic to humans and changes in water pH in runoff water may result in adverse changes in water chemistry (dissolved oxygen content, biological oxygen demand, etc). Soils that are contaminated by petroleum hydrocarbons can affect soil health.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on land, soils, and geology is ***neutral***, ***imperceptible,*** and ***long-term***.

Mitigation Measures

As the identified impacts with regard to land, soils, and geology during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impact

The residual effect during the operational phase on land, soils, and geology is ***neutral***, ***imperceptible,*** and ***long-term***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of land, soils, and geology during the operational phase. Therefore, a requirement for EIA does not arise.

5.3 WATER (HYDROGEOLOGY AND HYDROLOGY)

5.3.1 Construction Phase

Potential Impacts

Potential Impacts on Surface Water and Groundwater Quality

There is potential for the surface water quality to become contaminated with pollutants associated with construction activity. Dewatering and managing surface run-off is essential to maintain a dry working environment and prevent site flooding. Spills can result in contaminated water and surface run-off, posing a short-term risk to nearby watercourses. Without mitigation, rainfall run-off, dewatering water, and hydrostatic testing water during the construction and commissioning phases may have increased silt levels or become polluted from construction activities.

This contaminated water has the potential to enter directly into the tributary of the Newtownflood Stream, Cross River, and the tributaries of the Cross River. This has the potential to directly impact on the downstream designated sites (River Shannon Callows SAC, Middle Shannon Callows SPA, and the River Shannon Callows pNHA). Mitigation and avoidance measures will be put in place to manage run-off during the construction phase.

The potential of contamination is associated with the following sources:

- Suspended solids (muddy water with increased turbidity (measure of the degree to which the water loses its transparency due to the presence of suspended particulates) – arising from dewatering, excavation and ground disturbance;
- Hydrocarbons and other construction chemicals (ecotoxic) – accidental spillages from construction plant or stored fuels, oils, and materials.
- Wastewater (nutrient and microbial rich) – arising from accidental discharge from on-site toilets and washrooms.

Suspended solids in runoff water may result in an increase in suspended sediment load, resulting in increased turbidity, which may in turn impact on local infiltration capacity, or downstream infrastructure or watercourses. There is also the potential risk of unintentional discharge from construction traffic, or stored materials like fuels and oils which could have negative impacts on both surface waters on-site and downstream from the site and the underlying groundwater.

Construction activities involve the use of chemicals, such as paints, adhesives, solvents, and pesticides, which can also pose a risk of contamination if not handled and disposed of properly. These chemicals can seep into the soil or be carried by rainwater or other runoff, ultimately contaminating surface water.

Concreting operations carried out near surface water drainage points during construction activities could lead to discharges to a watercourse. Concrete (specifically, the cement component) is highly alkaline and any spillage to a local watercourse would be detrimental to water quality and local fauna and flora.

Accidental discharges can also occur from welfare facilities during construction activities. Wastewater can contain high levels of bacteria, chemicals and organic matter, which could contaminate nearby water sources if discharged incorrectly. The establishment and use of welfare facilities and use of sealed containment, ensures that there are no potential significant impacts; therefore, no additional mitigation is required.

In the absence of mitigation measures the potential impacts during the construction phase on surface water and groundwater quality are ***negative***, ***very significant*** and ***brief to temporary.***

Potential Impacts on Hydromorphology (Surface Water Flow and Quantity)

The compaction of soils across the construction site as a result of the land clearing and earthworks will reduce the infiltration capacity and increase the rate and volume of direct surface run-off. The increase in the rate and volume of direct surface run-off (rainfall, dewatering, or the disposal of hydrostatic testing water) can result in increased sediment loading, scouring impacts local drainage and watercourse, and downstream impacts. This increased flow of potentially contaminated water which arises from construction can pose a significant, and brief to temporary risk to the surface water drainage ditches onsite and watercourses via over land flow.

Clearing vegetation may lead to the destabilisation of watercourse banks and/or the bed, rendering them more susceptible to erosion. The act of removing vegetation can also bring about changes in the flow patterns of the water, triggering or expediting erosion along the banks or bed. Ensuring the stability of these banks is important, especially in situations where the possibility of heightened water levels (during high flows) exists, until the vegetation is able to naturally reestablish itself.

With reference to Section 3.7 of this report while the majority of the Proposed Development is located within Flood Zone C, a small portion of the pipeline route will route through Flood Zones A and B near to the Cross River.

The works within the immediate vicinity of the Cross River and its tributaries will be confined to May 1st to September 30th inclusive unless otherwise agreed with Inland Fisheries Ireland. Construction works will not take place during extreme adverse weather conditions and flooding. The construction methodologies and reinstatement ensure that the existing soil and morphological conditions will remain unchanged during the operational phase. The proposed works will have no permanent change to the hydrological regime, the working areas will be reinstated to original levels once completed, the works are temporary and include no permanent above ground structures. Additionally, if increased flooding does occur during the works, the surrounding land is used for agriculture and not sensitive to flooding. There are no significant impacts as a result of flooding during the construction phase to people, property, the economy, and the environment.

The commissioning phase will necessitate the use of approximately 77,000 litres of water for use in hydrostatic testing. The required water will be sourced from an existing supply either from nearby municipal supply point (mains water supply, local authority fire hydrants,) or alternatively, abstraction from another mains supply in private ownership from groundwater / surface water that is permitted and registered with the EPA under the European Union (Water Policy) (Abstractions Registration) Regulations 2018 (S.I. No. 261 of 2018). Given that no new surface water abstractions are proposed as the hydrostatic testing water will be sourced from an existing supply, there are no potential impacts on the quantity of surface water.

In the absence of mitigation measures the potential impacts during the construction phase on hydromorphology (Surface Water Flow and Quantity) are ***negative***, ***significant,*** and ***temporary to brief effects***

Potential Impacts on Hydromorphology (Watercourse Crossings)

A temporary bridge will be installed over the Cross River to facilitate an access to the northern side of the river (Chainage 2155 to 2215). This temporary bridge (20m in length) will be installed on c. 3.8 m by 1 m timber bogmats on each side of the bridge beams to provide temporary abutment to allow clearance above, and to avoid interaction with the watercourse. There are no instream works, at this location, as the temporary bridge will span the width of the river and the construction works will not directly interact with the watercourse. After completion of works, the Cross River will be reinstated to its original condition.

The proposed pipeline crosses underneath the Cross River via an trenchless installation method (Chainage 2155 to 2215) and will avoid interaction with the Cross River. The proposed trenchless crossing of the Cross River will achieve a minimum clearance of 1.6 m from the bottom of the riverbed to the top of pipe is required as per IS 328:2021 and drawing GNI138-7-001 prepared by Fingleton White and submitted with this application. The pipeline is designed to pass underneath the Cross River with an adequate separation distance, eliminating any potential impact on the structural integrity and flow of the river. There are no instream works at this location, the trenchless installation method ensures that there is no interaction with the watercourse and no impacts on the hydromorphology of the Cross River at this location.

A temporary flume (culvert pipe) will be installed at the 2 no. tributaries of the Cross River (Chainage 2065 to 2075, and Chainage 2420 to 2430). This temporary culvert of flume is to facilitate the installation of the proposed pipeline, and to create an uninterrupted running track to prevent construction vehicles from traversing the bed of the watercourse. This temporary flume (culvert pipe) will be installed by the creation of a temporary dam. The flume will direct water away from the trench area, preventing interference with construction activities and ensuring the safety of workers and the integrity of the watercourse. The temporary damming can alter water flow and potentially lead to sediment buildup and erosion, potentially impacting ecosystems and water quality. These works have the potential to temporarily alter the natural flow of water, potentially affecting downstream hydrological patterns, leading to increased flooding risks. After completion of works this tributary of the Cross River will be reinstated to its original condition.

The pipeline will cross underneath an existing road culvert of the tributary of the Newtownflood Stream (Chainage 015 to 020). At this location the tributary of the Newtownflood Stream passes within a concrete pipe culvert. The pipeline will cross underneath an piped/culverted section of the tributary of the Cross River (Chainage 2430 to 2435) that is within the Greener Ideas Facility. This tributary of the Cross River (Chainage 2430 to 2435) has been diverted as part of the development works at the Greener Ideas Facility. These 2 no. crossing will follow a typical third-party service crossing, whereby the pipeline will be installed to avoid interaction with the existing underground service. Given the minimum depth of cover required (1200 mm to the top of the pipe) the pipeline will be constructed to pass underneath the service. A minimum separation distance of 500mm will be maintained between the pipeline and the culvert/pipe. A typical service crossing drawing provided by Fingleton White is included with this application (Drawing No. GNI138-MISC-001). The pipeline is designed to pass underneath the piped section with an adequate separation distance, eliminating any

potential impact on the stream's structural integrity and flow. There are no instream works at this location, the construction works will not interact with the watercourse.

If the installation of these temporary structures is not executed effectively, there is a potential risk of compromising the integrity and stability of the drain/stream banks during the bridge installation process. This could lead to erosion or destabilisation of the surrounding areas and potentially impact the aquatic habitat. There are no permanent diversions of any drainage ditches or waterbodies, or permeant in stream structures as part of the Proposed Development .

In the absence of mitigation measures the potential impacts during the watercourse crossings of the construction phase on hydromorphology are ***negative***, ***significant,*** and ***temporary to brief***. During the instream works at the tributary of the Cross River (Chainage 2065 to 2075) in the absence of mitigation measures there is the potential for ***negative, very significant, brief*** impacts on surface water flow.

Potential Impacts on Water Framework Directive Status

There is a potential of accidental discharges during the construction phase, however these are temporary short-lived events that will not impact on the WFD status in the long-term.

The Proposed Development will not impact on trends in water quality and overall WFD status assessment of the surface water bodies (Cross River (Cross [Roscommon], EU_CD: IE_SH_26C100300, EPA_Code: 26C10), and Newtownflood Stream (EU Code: IE_SH_26C100400)) nor the groundwater bodies (Athlone West (EU Code: IE_SH_G_018) or Industrial Facility (P0110-01) (EU Code: IE_SH_G_018)). The Proposed Development will not cause a deterioration in status in any water body, and not prevent it from achieving 'Good Ecological Status' (GES) and 'Good Chemical Status' (GCS).

There is no potential impact on water framework directive status of the surface water bodies and groundwater bodies, therefore no specific mitigation measures are required.

Mitigation Measures

These potential brief to temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.1 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Land, Soil, Geology, Water (Hydrogeology and Hydrology) that will be implemented during the construction phase. The purpose of the oCEMP mitigation measures is to avoid or prevent what might otherwise have been significant adverse effects on the environment.

Residual Impacts

The residual impact (after the implementation of the oCEMP mitigation measures) during the construction phase on surface water and groundwater quality are ***negative***, ***slight***, and ***brief to temporary.***

The residual impact (after the implementation of the oCEMP mitigation measures) during the construction phase on hydromorphology (Surface Water Flow and Quantity) are ***negative***, ***slight,*** and ***temporary to brief effects.***

The residual impact (after the implementation of the oCEMP mitigation measures) during the watercourse crossings of the construction phase on hydromorphology are ***negative***, ***slight,*** and ***temporary to brief***. During the instream works at the tributary of the Cross River (Chainage 2065 to 2075) the residual impact (after the implementation of the oCEMP mitigation measures) is ***negative, slight,*** and ***brief*** on surface water flow.

The Proposed Development will not compromise progress towards achieving the WFD objective of 'good status' or cause a deterioration of the overall status of the water bodies that are in scope.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of hydrogeology and hydrology during the construction phase. Therefore, a requirement for EIA does not arise.

5.3.2 Operational Phase

Potential Impacts

Potential Impacts on Surface Water and Groundwater Quality

There are no discharges to surface water or ground included in the design. Once operational and reinstatement has occurred, the underground gas transmission pipeline will not alter the existing hardstanding areas that it will run beneath (R446 and L2027 roads) and will not result in any additional hardstanding or surface water generation.

There is limited potential for leaks or spills of petroleum hydrocarbons from site maintenance activities during operation of the development; unmitigated leaks or spills may lead to contamination of groundwater or surface water. These pollutants such as hydrocarbons that are a known carcinogen (cause cancer) in many animals and suspected to be carcinogenic to humans and changes in water pH in runoff water may result in adverse changes in water chemistry (dissolved oxygen content, biological oxygen demand etc).

There are no new connections to potable water or foul water proposed. There are no potential adverse impacts on water resources during operation.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on hydrogeology and hydrology with respect to surface water and groundwater quality are ***neutral***, ***imperceptible,*** and ***long-term***.

Potential Impacts on Hydromorphology (Surface Water Flow and Quantity)

With reference to Section 3.7 of this report and the FRA (JBA, 2024), while the majority of the Proposed Development is located within Flood Zone C, a small portion of the pipeline route will route through Flood Zones A and B.

During operation, the gas transmission pipelines will be buried underground. The proposed works will have no permanent change to the hydrological regime, the working areas will be reinstated to original levels once completed, the works are temporary and include no permanent above ground structures. The FRA (JBA, 2024) concludes that there will be no change to flood risk or amendment to the floodplain in terms of storage or conveyance as a result of the Proposed Development.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on hydrogeology and hydrology with respect to hydromorphology (surface water flow and quantity) are ***neutral***, ***imperceptible,*** and ***long-term***.

Potential Impacts on Groundwater Flow

The Proposed Development crosses the 'Athlone West' (EU Code: IE_SH_G_018) groundwater body and the 'Industrial Facility (P0110-01)' (EU Code: IE_SH_G_018) "sub"groundwater body illustrated in Figure 4.1.

The potential effects on groundwater flow have been mitigated through design and engineering decisions. The potential for groundwater to flow through subsurface materials should not be significantly affected in the long term by the proposed pipeline. These are summarised below:

Within the field, road open cut sections of the proposed pipeline, water stops will be installed within the trench as needed. These water stops are specifically designed to maintain natural flow of groundwater and prevent the trench from acting as a conduit for groundwater flow i.e the trench itself does not become an artificial pathway for groundwater movement. The pipeline will be in an excavated trench to a depth of 1600 mm, ensuring a minimum cover of 1200 mm above the pipe. Given the relatively shallow depth of the pipeline, there will be no significant impact on regional groundwater flow patterns. There will be no change to recharge to the aquifer or groundwater flow as a result of the proposed pipeline. The design ensures that any localised effects are contained, preventing alterations to the natural hydrological regime.

The crossing of the Cross River will use a trenchless method involving a sleeved pipeline installation. The sleeves are specifically designed for water-tightness and are intended to completely isolate the gas pipeline from the surrounding groundwater environment. By preventing any interaction between the pipeline and groundwater, this design eliminates the risk of the pipeline altering groundwater flow patterns. The estimated depth to the crown of the sleeve at 1.6 metres, based on industry standards, further mitigates potential effects. This depth ensures drilling below the riverbed, significantly reducing the likelihood of any interference with the natural flow.

Potential Impacts on Water Framework Directive Status

There is a potential of accidental discharges during the operational phase, however these are temporary short-lived events that will not impact on the WFD status in the long-term.

The Proposed Development will not impact on trends in water quality and overall WFD status assessment of the surface water bodies (Cross River (Cross [Roscommon], EU_CD: IE_SH_26C100300, EPA_Code: 26C10), and Newtownflood Stream (EU Code: IE_SH_26C100400)) nor the groundwater bodies (Athlone West (EU Code: IE_SH_G_018) or Industrial Facility (P0110-01) (EU Code: IE_SH_G_018)). The Proposed Development will not cause a deterioration in status in any water body, and not prevent it from achieving 'Good Ecological Status' (GES) and 'Good Chemical Status' (GCS).

There is no potential impact on water framework directive status of the surface water bodies and groundwater bodies, therefore no specific mitigation measures are required.

Mitigation Measures

As the identified impacts with regard to hydrogeology and hydrology during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impacts

The residual impact on hydrogeology and hydrology during operation is considered to be ***neutral, imperceptible*** and ***long term***.

The Proposed Development will not compromise progress towards achieving the WFD objective of 'good status' or cause a deterioration of the overall status of the water bodies that are in scope.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of hydrogeology and hydrology during the operational phase. Therefore, a requirement for EIA does not arise.

5.4 BIODIVERSITY AND AREAS OF CONSERVATION

5.4.1 Construction Phase

Potential Impacts

The potential impact from the Proposed Development on biodiversity with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive has been considered as a part of the Appropriate Assessment (AA) Screening Report, Natura Impact Statement, and Ecological Impact Assessment (EcIA) (Moore Group, 2024a, 2024b, 2024c), and Bat and Otter Survey Report (O'Donnell Environmental, 2024) included with the application submission. In summary:

- It cannot be excluded at the Screening Stage of AA, on the basis of objective information, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on a European site. a Natura Impact Statement has been prepared for the proposed development and is included with this S39A application.
- There will be no significant direct effects on drainage ditches and water courses crossed by the proposed pipeline.
- The area of woodland is relatively young landscape planting and the effect of loss will not be significant.
- The hedgerows are of relatively low value given the high degree of gaps and relatively low species composition and the effect will not be significant.
- The predominant habitat in fields that the pipeline will cross comprises rush dominated wet grassland and the temporary disturbance of this habitat will not be significant.
- There will be no negative effects on badgers.
- The overall effect on Otter as a result of the construction phase of the proposed development in the absence of mitigation is considered to be a temporary, slight, negative effect at the local level.
- The overall effect on bats as a result of the construction phase of the proposed development in the absence of mitigation is considered to be a temporary, slight, negative effect at the local level

- The potential effects on local bird populations are not significant and will be avoided.

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.1 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Land, Soil, Geology, Water (Hydrogeology and Hydrology), and Section 5.2 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Ecology and Biodiversity that will be implemented during the construction phase.

The mitigation measures to avoid or prevent what might otherwise have been significant adverse effects on the environment including designated sites as set out in Section 3.4 of the Natura Impact Statement.

Residual Impacts

The EcIA (Moore Group, 2024) concludes that:

> *It is the conclusion of this EcIA, on the basis of the best scientific knowledge available, and with the implementation of the mitigation and restriction measures set out under Section 6 [of the EcIA], that the possibility of any residual adverse effects on Biodiversity arising from the proposed development, either alone or in combination with other plans or projects, can be excluded beyond reasonable scientific doubt.*

The residual impact (after the implementation of the oCEMP mitigation measures) during the construction phase on biodiversity are ***negative***, ***slight***, and ***short term.***

The NIS (Moore Group, 2024) concludes that:

> *This NIS has reviewed the predicted impacts arising from the Proposed Development and found that with the implementation of appropriate mitigation measures specifically with regard to construction surface water treatment the proposed development will not result in a 'lasting and irreparable' adverse effect on the integrity of the European sites considered in this assessment.*
>
> *It is the conclusion of this NIS, on the basis of the best scientific knowledge available, and with the implementation of the mitigation and restriction measures set out under Section 3.5, that the possibility of any adverse effects on the integrity of the European Sites considered in this NIS (having regard to their conservation objectives), or on the integrity of any other European Sites (having regard to their conservation objectives,) arising from the proposed development, either alone or in combination with other plans or projects, can be excluded beyond reasonable scientific doubt.*
>
> *A final determination will be made by the competent authority in this regard.*

The residual impact (after the implementation of the NIS mitigation measures) during the construction phase on designated sites within the zone of influence are ***not significant.***

Having regard to the foregoing, with regard to the evidence set out within the Ecological Impact Assessment, Appropriate Assessment Screening, and Natura Impact Statement, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of biodiversity during the construction phase. Therefore, a requirement for EIA does not arise.

5.4.2 Operational Phase

Potential Impacts

There will be no potential negative operational effects on local biodiversity during the operational phase of the Proposed Development.

The potential impacts on biodiversity are ***neutral, slight***, and ***long term*** for the operational phase.

Mitigation Measures

As the identified impacts with regard to biodiversity during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impacts

On the basis of the above with regard to the evidence set out within the EcIA the potential effects on local biodiversity and ecology are ***neutral, imperceptible*** and ***long term*** for the operation phase.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of biodiversity impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.5 AIR QUALITY AND CLIMATE

5.5.1 Construction Phase

Potential Impact

Potential Impacts on Air Quality

The greatest potential impact on air quality during the construction phase of the Proposed Development is from construction dust emissions and the potential for nuisance dust and PM_{10}/$PM_{2.5}$ emissions. While construction dust tends to be deposited within 250 m of a construction site, the majority of the deposition occurs within the first 50 m based on the Institute of Air Quality Management (IAQM) guidance (2024). The extent of any dust generation depends on the nature of the dust (soils, peat, sands, gravels, silts etc.) and the nature of the construction activity. In addition, the potential for dust dispersion and deposition depends on local meteorological factors such as rainfall, wind speed and wind direction.

The scheme has limited potential for dust impacts during construction due to the separation distance between the proposed pipeline and the nearest sensitive receptors. There are a number of dwellings along the R446 and L2027 (approx. 34) of which are in close proximity (within 50 m) of the site, other sensitive receptors include the Summerhill National School, Coláiste Chiaráin, and Drum Community Centre.

Due to the linear nature of the underground transmission gas pipeline, not all receptors will be impacted at any one time. The pipeline along the R446 and L2027 (Chainage 015 to 1900) will be installed at approximately 100 m working lengths at any time thereby reducing the potential dust emission magnitude from excavation and reinstatement activities.

In the absence of mitigation measures the potential impacts during the construction phase on air quality are ***negative***, ***not significant,*** and ***brief to temporary.***

Potential Impacts on Climate

Construction stage traffic and embodied energy of construction materials are expected to be the dominant source of greenhouse gas emissions as a result of the construction phase.

In the absence of mitigation measures the potential impacts during the construction phase on climate are ***negative***, ***not significant,*** and ***long term.***

Mitigation Measures

These potential impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.3 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Air Quality, and Section 5.4 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Climate that will be implemented during the construction phase.

Residual Impact

The residual impact on air quality during construction is considered to be ***neutral, imperceptible, temporary*** and ***not significant.***

The residual impact on climate during construction is considered to be ***negative, imperceptible, long-term*** and ***not significant.***

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of air quality and climate during the construction phase. Therefore, a requirement for EIA does not arise.

5.5.2 Operational Phase

Potential Impact

Potential Impacts on Air Quality

During operation, the transmission gas pipeline will be buried underground, and therefore, there will be no emissions to atmosphere. There is the potential for maintenance vehicles accessing the site to result in emissions of NO_2, PM_{10} and $PM_{2.5}$. However, due to the infrequent nature of maintenance activities and the low number of vehicles involved emissions are not predicted to be significant.

Transport Infrastructure Ireland (TII) in their guidance document '*Air Quality Assessment of Specified Infrastructure Projects – PE-ENV-01106*' outline the below screening criteria for determining whether a detailed air impact assessment of traffic

emissions is required for a project. Where traffic changes are below the following thresholds, no detailed assessment of traffic emissions is required and it is concluded there is no potential for significant impacts to air quality.

- Annual average daily traffic (AADT) changes by 1,000 or more;
- Heavy duty vehicle (HDV) AADT changes by 200 or more;
- Daily average speed change by 10 kph or more;
- Peak hour speed change by 20 kph or more;
- A change in road alignment by 5m or greater.

The operational phase traffic will not meet any of the above criteria and therefore, a detailed assessment of traffic emissions is not required. There is no potential for significant impacts to air quality from operational traffic emissions.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on air quality are ***neutral***, ***imperceptible, long-term*** and ***not significant***.

Potential Impacts on Climate

As the pipeline will be buried underground once constructed, following commissioning, there will be no direct emissions to atmosphere when operational, including GHG emissions. Therefore, the operational phase of the Proposed Development will not cause a significant impact to climate and will not contribute towards emissions and Ireland's ability to meet the national 2030 carbon budgets and sectoral emissions ceilings set out within the Climate Action and Low Carbon Development (Amendment) Act 2021 (No. 32 of 2021) and Climate Action Plan.

As part of the initial commissioning of the gas pipeline gas venting or purging will be required which will be carried out in line with IGE/SR/22. Methane will be the primary component of the released gas. Methane gas has the potential to impact climate as it is a greenhouse gas with a global warming potential (GWP100) of 28 times that of carbon dioxide (CO_2). However, this gas venting during commissioning will be a once-off event and will not involve the release of significant quantities of methane to atmosphere. Due to the small amount of gas to be released and the once-off, short-duration of the event this is not predicted to have a significant impact on climate. Impacts will be ***temporary*** and ***imperceptible***.

During the operational phase the system will be closed and there will be no emissions of gas to the ambient environment under typical operational conditions.

Gas transmission pipelines used by GNI are designed to National Standard IS328. During construction these pipelines are tested to ensure the integrity of the pipeline and the associated equipment to ensure compliance with IS328. Leak survey is systematically carried out per the requirements of IS328. Any detected leaks above 250ppm are investigated and rectified under GNI standard operating procedures for preventative maintenance.

GNI includes methane emissions as part of the Scope 1 GHG emissions reporting which are published in the GNI annual Sustainability Report. GNI are committed to accurately calculating methane emissions from their network and utilise the standardised "MARCOGAZ model" which allows for quantification of emissions from each source, and then aggregates same. Marcogaz is the technical association of the European natural gas industry.

GNI reports its GHG emissions and Carbon equivalents through the Carbon Disclosure Project (CDP). GNI achieved a score of 'B' in 2022 which exceeds the average CDP rating for the oil and gas storage and transportation sector.

In addition to GHG emissions and impacts to climate, the "*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*" (EPA 2022) states that impacts relevant to adaptation to climate change should be assessed and that projects should be assessed in terms of their vulnerability to climate change. As the transmission gas pipeline will be buried underground once constructed it will be protected from the majority of climate change related hazards such as flooding, extreme winds, storm damage etc. Additionally, the Proposed Development has been designed to accommodate future climate change and potential climate change related hazards where required. Therefore the Proposed Development is not predicted to be vulnerable to future climate change.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on climate are ***neutral***, ***imperceptible, long-term*** and ***not significant***.

Mitigation Measures

As the identified impacts with regard to air quality and climate during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impact

The residual impact on air quality and climate during operation is considered to be ***neutral, imperceptible*** and ***long term***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of air quality and climate change impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.6 NOISE AND VIBRATION

5.6.1 Construction Phase

Potential Impact

Potential Noise Impacts

During the construction phase it is expected that there may be some temporary impacts on the nearest residential and community receptors due to noise emissions from the plant equipment, increased traffic, and road surface breaking activities along the R446 and L2027 (Chainage 015 to 1900). There are a number of dwellings along the R446 (approx. 34) of which are in close proximity (within 50 m) of the site, other sensitive receptors include the Summerhill National School, Coláiste Chiaráin, and Drum Community Centre.

Due to the linear nature of the underground transmission gas pipeline, not all receptors will be impacted at any one time. The pipeline along the R446 and L2027 (Chainage 015 to 1900) will be installed at approximately 100m at any time thereby reducing the potential dust emission magnitude from excavation and infilling activities.

The trenchless crossing activities (Chainage 2155 to 2215 and Chainage 2245 to 2365) will be undertaken in an agricultural field at a greater distance (c. 300m) from the nearest sensitive receptors and is unlikely to cause significant impacts.

In the absence of mitigation measures the potential impacts during the construction phase due to noise is ***negative***, ***moderate,*** and ***temporary.***

Potential Vibration Impacts

There is the potential for minor levels of vibration at sensitive locations during construction activities associated with the proposed pipeline is typically associated with road surface breaking activities along the R446 and L2027 (Chainage 015 to 1900).

The trenchless drilling crossing activities (Chainage 2155 to 2215 and Chainage 2245 to 2365) will be undertaken in an agricultural field at a greater distance (c. 300m) from the nearest sensitive receptors and is unlikely to cause significant impacts.

In the absence of mitigation measures the potential impacts during the construction phase due to vibration is ***negative***, ***moderate,*** and ***temporary.***

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.5 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Noise and Vibration that will be implemented during the construction phase.

Residual Impact

The residual impact on noise and vibration during construction is considered to be ***negative, slight*** and ***temporary***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of noise and vibration impacts during the construction phase. Therefore, a requirement for EIA does not arise.

5.6.2 Operational Phase

Potential Impact

Due to the fact that the proposed transmission gas pipeline route will be located underground, there are no operational operation noise impacts associated with the Proposed Development.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on noise and vibration are ***neutral***, ***imperceptible,*** and ***long-term***.

Mitigation Measures

As the identified impacts with regard to noise and vibration during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impact

The residual impact on noise and vibration during operation is considered to be ***neutral, imperceptible*** and ***long term***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of noise and vibration impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.7 LANDSCAPE AND VISUAL IMPACT

5.7.1 Construction Phase

Potential Impact

Whilst there will be some physical construction stage works, these are considered to be relatively modest, much of which relates to soil stripping and excavation of a relatively a narrow trench.

The majority of lands within the planning boundary to the north of the M6 motorway are occupied by the site of the Greener Ideas Power Station, which is currently under construction, as well as associated carparking and access roads. A triangular section of land southeast of this site comprises an area of shelterbelt trees between the Monksland industrial area and the M6. A very small portion of this woodland will be affected by the reception pit for the proposed trenchless crossing under the adjacent Motorway. The area of woodland is relatively young landscape planting and the effect of loss will not be significant.

The proposed development will result in the short term loss of c.60m of Low value hedgerow opposite Drum Community Centre to facilitate site access and the pipeline and c.30m of low value hedgerow in a central field boundary to the south of the Cross River.

Construction related activity and its effect on landscape character will be temporary in duration and will be heavily localised.

During construction, the main visual impacts will arise from frequent heavy vehicle movements and worker vehicles travelling to and from the site and using the site entrance. In addition, there will be construction machinery on site, which may rise above intervening vegetation and buildings. There will also be stockpiles of stripped topsoil and construction materials awaiting use.

In the absence of mitigation measures the potential impacts during the construction phase on landscape and visual impact are ***negative***, ***slight,*** and ***temporary***.

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.6 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Noise and Vibration that will be implemented during the construction phase.

Residual Impact

The residual impact on landscape and visual impact during construction is considered to be ***negative, slight*** and ***temporary.***

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of landscape and visual impacts during the construction phase. Therefore, a requirement for EIA does not arise.

5.7.2 Operational Phase

Potential Impact

Due to the limited visibility of the Proposed Development from surrounding receptors, there is limited potential for the Proposed Development to generate any notable visual impacts. Once the road surfaces and landscape in the surrounds of the proposed pipeline corridor has been fully reinstated, there will be little, if any, evidence that the pipeline corridor exists.

Operational phase impacts mainly relate to the maintenance works for the pipeline corridor, which will be infrequent and will be brief in nature. Maintenance operations will be much less intensive than the activity at the construction stage.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on landscape and visual impact are ***neutral***, ***imperceptible,*** and ***long term***.

Mitigation Measures

The identified impacts with regard to landscape and visual impact during the operational phase of the Proposed Development will be imperceptible. Given that ground reinstatement works will be carried out during the construction phase, there is no requirement for the implementation of additional mitigation during the operational phase.

Residual Impact

The residual impact on landscape and visual impact during operation is considered to be ***neutral, imperceptible*** and ***long term.***

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of landscape and visual impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.8 CULTURAL HERITAGE AND ARCHAEOLOGY

The following assessment of potential impacts in relation to archaeology, architectural and cultural heritage has been prepared with regard to the Archaeology, Architectural and Cultural Heritage Scoping Report (CRDS, 2024). Full detail on the assessment criteria, assessment methodologies and receiving environment in terms of archaeology, architectural and cultural heritage are provided in the CRDS report.

5.8.1 Construction Phase

Potential Impacts

The Proposed Development will comprise ground disturbance in the erecting of temporary and permanent fencing, and topsoil stripping of the wayleave and compound, and deeper excavation for the laying of the pipeline. The ground disturbance includes traversing townland boundaries and watercourses.

Overall, there is low potential for previously unrecorded sub-surface archaeological or architectural heritage remains to survive along the Proposed Development route. There is however potential for archaeological features or finds to survive where the proposed route traverses the Cross River and townland boundaries.

In the absence of mitigation measures the potential impacts during the construction phase on archaeology, architectural and cultural heritage are ***negative***, ***not significant,*** and ***permanent***.

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Section 5.7 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Cultural Heritage and Archaeology that will be implemented during the construction phase.

Residual Impacts

The residual impact on archaeology, architectural and cultural heritage during construction is considered to be ***neutral, imperceptible*** and ***permanent.***

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of archaeology, architectural and cultural heritage impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.8.2 Operational Phase

Potential Impacts

There will be no ground disturbance during the operational phase of the Proposed Development .

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on archaeology, architectural and cultural heritage are ***neutral***, ***imperceptible,*** and ***long term***.

Mitigation Measures

As the identified impacts with regard to archaeology, architectural and cultural heritage during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impacts

The residual impact on archaeology, architectural and cultural heritage during operation is considered to be ***neutral, imperceptible*** and ***long term.***

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of archaeological, architectural and cultural heritage impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.9 MATERIAL ASSETS

5.9.1 Construction Phase

Potential Impacts

Traffic and Transportation

During the construction phase of the Proposed Development , there will be additional traffic movements to/from the site from construction personnel, security staff, professional staff (i.e. design team, utility companies), excavation plant, dumper trucks and deliveries/removal of materials (waste/spoil).

The works associated with the pipeline works will require trenching and reinstatement at the sections of public roads. There will be a need to carry out the works under traffic management via lane closure, shuttle working or by road closure with associated diversion. The maximum length of work zones within any local section of road will be limited to 100 metres.

In the absence of mitigation measures the potential impacts during the construction phase on waste management are ***negative***, ***moderate,*** and ***temporary***.

Waste and Waste Management

There will be some waste materials produced in the construction of the proposed scheme which will be disposed of using licensed waste disposal facilities and contractors. The scale of the waste production in conjunction with the use of licensed waste disposal facilities and contractors does not cause concern for likely significant effects on the environment.

Other than waste generated from materials necessary for the construction of the building the Proposed Development will not produce significant volumes of waste. It is considered that the Proposed Development will not have any significant impact in terms of resources or waste generation.

In the absence of mitigation measures the potential impacts during the construction phase on waste management are ***negative***, ***significant,*** and ***temporary***.

Utilities

Welfare facilities will be provided for the construction workers on site during the construction works and wastewater will be of domestic origin only. This will be removed via road tanker by an apparently licenced contractor, there will be no connection to the existing foul wastewater infrastructure.

There is no connection to any public surface water infrastructure proposed during the construction phase. During the construction phase the water requirements for the site will be minimal and facilitated through road tanker delivery. The power requirements for the construction phase will be relatively minor, no connection to the public network will be made.

The connection to the existing transmission gas line BGE/77 will be undertaken via hot tap connections. Hot Tapping allows a connection to an existing pipeline to be completed while the line is fully operational, ensuring no shutdown is required and that no gas is lost from the pipe.

In the absence of mitigation measures the potential impacts during the construction phase on utilities are ***negative***, ***not significant,*** and ***temporary***.

Mitigation Measures

These potential temporary impacts during the construction will be mitigated in accordance with the oCEMP included with the application documentation.

Traffic and Transportation

Section 5.8 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Traffic and Transportation that will be implemented during the construction phase. These measures include a Construction Traffic Management Plan (CTMP) prior to the commencement of works by the appointed construction contractor(s) to minimise the impacts associated with the construction phase upon the surrounding road network.

Waste and Waste Management

Section 5.9 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Waste that will be implemented during the construction phase.

Utilities

Section 5.10 of the oCEMP sets out mitigation measures in the form of requirements and standards in relation to Utilities that will be implemented during the construction phase.

Residual Impacts

The residual impact on traffic and transportation during construction is considered to be ***negative, not significant,*** and ***temporary***.

The residual impact on waste management during construction is considered to be ***neutral, imperceptible*** and ***temporary***.

The residual impact on utilities during construction is considered to be ***neutral, imperceptible*** and ***temporary***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of material assets impacts during the construction phase. Therefore, a requirement for EIA does not arise.

5.9.2 Operational Phase

Potential Impacts

Traffic and Transportation

As there are no permanent employees required for the operational phase there will be no additional trips on the external roads network.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on traffic and transportation are ***neutral***, ***imperceptible,*** and ***long term***.

Waste and Waste Management

Once the Proposed Development is operational there will be no regular waste generation.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on waste and waste management are ***neutral***, ***imperceptible,*** and ***long term***.

Utilities

During the operational phase of the Proposed Development there is no requirement for an electrical connection. There will be no generation of surface water or foul waste water, there will be no connection to any public surface water or foul water infrastructure. There will be no consumption of potable water or connection to any potable water infrastructure.

In this instance the nature of the Proposed Development ensures that rather than utilising gas, the Proposed Development will connect existing infrastructure to the permitted Greener Ideas Facility. The underground transmission gas pipeline in itself does not have any operational gas requirements.

In the absence of mitigation measures (or design measures) the potential impacts during the operational phase on utilities are ***neutral***, ***imperceptible,*** and ***long term***.

Mitigation Measures

As the identified impacts with regard to material assets during the operational phase of the Proposed Development will be imperceptible, there is no requirement for operational mitigation measures.

Residual Impacts

The residual impact on traffic and transportation during operation is considered to be ***neutral, imperceptible*** and ***long term***.

The residual impact on waste management during operation is considered to be ***neutral, imperceptible*** and ***long term***.

The residual impact on utilities during operation is considered to be ***neutral, imperceptible*** and ***long term***.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the Proposed Development in respect of material assets impacts during the operational phase. Therefore, a requirement for EIA does not arise.

5.10 ASSESSMENT OF POTENTIAL IMPACTS FROM INTERACTIONS

This section discusses the potential interactions and inter-relationships between the environmental factors discussed in the preceding sections. This section covers the construction, operational and decommissioning phases of the Proposed Development.

In accordance with the guidance not only are the individual significant impacts required to be considered when assessing the impact of a development on the environment, but so must the interrelationships between these factors be identified and assessed.

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

The interaction of the foregoing impacts, described above, would not give rise to any significant negative impacts on the environment. There is a potential interaction between land, soil geology, hydrogeology and hydrology through poorly managed surface water run-off during the construction phase of the Proposed Development that in the absence of mitigation measures could negatively impact on biodiversity. There is a potential for the construction activity in terms of air quality and of dust generated to impact on human health and biodiversity. There is a potential interaction between noise and vibration, and negative impacts on human health.

However, these potential interactions are short-term and associated with the construction phase. The oCEMP (AWN, 2024) has outlined mitigation measures to ensure that pollution and nuisances arising from site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the Proposed Development .

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the interactions. Therefore, a requirement for EIA does not arise.

5.11 ASSESSMENT OF POTENTIAL FOR CUMULATIVE IMPACTS

As part of the assessment of the Proposed Development , the likelihood of potential cumulative impact of the Proposed Development has been considered with any future development (as far as practically possible) and the cumulative impacts with developments in the locality (including planned, permitted and committed developments).

Cumulative impacts are those impacts that relate to incremental / additive impacts of the planned development in addition to historical, present or foreseeable future actions. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

5.11.1 Construction Phase

Related Development

There is potential for cumulative effects during the construction phase with the related Greener Ideas Facility development.

During a simultaneous construction phase, there is potential for cumulative impacts on noise, water quality, dust, biodiversity and traffic in the absence of mitigation. Mitigation measures are included in the design of each development listed above in Section 3.3.1. Mitigation measures required during the construction phase of the Proposed Development are included within the oCEMP (AWN, 2024) submitted with this S39A application documentation and are also outlined in Sections 5.0 of this EIA Screening report. Mitigation measures for the Greener Ideas Facility are set out as follows:

- RCC Reg. Ref.: 18/256 - mitigation measures required during the construction phase are included within the EIA Report, Construction Environmental Management Plan and Construction and Demolition Waste Management Plan included with the planning documentation. Condition 4 requests that Construction and Demolition Waste Management Plan be produced prior to commencing works.
- RCC Reg. Ref.: 22/234 - mitigation measures required during the construction phase are included within the Natura Impact Statement, Environmental Considerations Report and Construction Environmental Management Plan included with the planning documentation. Condition 2 outlines that construction must be carried out in accordance with the conditions of previous permission Reg. Ref.: 18/256.
- ABP Reg. Ref.: ABP-317588-23 - mitigation measures required during the construction phase are included within the EIA Screening Report, Construction Environmental Management Plan and Resource and Waste Management Plan included with the planning documentation. Condition 6 requests that a Traffic Management Plan be produced for each phase of works. Condition 10 requests a suitably qualified archaeologist to monitor all site clearance, topsoil stripping and groundworks associated with construction.

Table 5.2 below indicates the potential overlap in the construction phases of the above permitted developments and the Proposed Development. This is an approximate indication based on the publicly available information.

Table 5.2 *Construction phase timelines of the permitted developments and Proposed Development*

Year		2023				2024				2025				2026			
Quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Proposed Monksland Pipeline Development																	
Greener Ideas Facility	Power Plant Construction (18/256, as revised by 22/234)																
	Cuillean 110kV Substation (ABP-317588-23)																

Provided the mitigation measures stipulated in the planning conditions for each of the above permitted and Proposed Development s is implemented, there will be no significant cumulative impacts on hydrology, biodiversity, traffic, dust or noise during the simultaneous construction phases these permitted developments.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the cumulative impacts during the construction phase. Therefore, a requirement for EIA does not arise.

5.11.2 Operational Phase

Related Development

As outlined in the preceding sections of this report, there will be no significant environmental impacts associated with the operational phase of the Proposed Development . The Proposed Development will therefore not be capable of combining with any existing, permitted, planned or future development to produce significant cumulative impacts.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the cumulative impacts during the operational phase. Therefore, a requirement for EIA does not arise.

6.0 FINDINGS AND CONCLUSIONS

The purpose of this EIA Screening Report has been to consider whether there is a requirement for EIA in respect of the proposed Monksland Pipeline (Gas to Greener Ideas Athlone) S39A application to the CRU.

The Proposed Development and component parts have been considered against the thresholds outlined in Schedule 5 in the Planning and Development Regulations 2001 (as amended). On the basis of the evaluation set out in Section 2.0 an EIA for the proposed Project is not mandatory; the proposed project is of a class referred to in Part 2 of Schedule 5 to the Planning and Development Regulations 2001.

Section 40A(b) of the Gas Act 1976 (as amended) the CRU is required to assess whether or not the proposed pipeline would be likely to have significant effects on the environment and, where it determines that the proposed pipeline would be likely to have significant effects on the environment, shall direct that the proposed pipeline concerned is to be the subject of an environmental impact assessment. For the purpose of enabling the CRU to make its determination information necessary to enable this screening assessment the information specified in Annex IIA (and Annex III information) has been provided in this report.

It is the opinion of AWN, on the basis of the evidence documented in Sections 3.0, 4.0 and 5.0 of this EIA Screening Report, with regard to the nature, scale and location of the subject site, there is no likelihood of significant effects on the environment arising from the Proposed Development on the environment (direct, indirect or cumulatively with other development) and therefore EIA is not required for this project.

7.0 REFERENCES

Appropriate Assessment Screening, Monksland Pipeline (Gas to Greener Ideas Athlone). Moore Group. 2024a.

Archaeological, Architectural and Cultural Heritage Scoping Report. CRDS Ltd, 2024.

Bat and Otter Survey Report, Gas to GIL Power Athlone - Monksland AGI, Co. Roscommon. O'Donnell Environmental.

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Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021).

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

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Gas to GIL Athlone Outline Construction Methodology. Fingleton White, 2024.

Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes. Transport Infrastructure Ireland (2011).

Natura Impact Statement, Monksland Pipeline (Gas to Greener Ideas Athlone). Moore Group. 2024.

Outline Construction Environmental Management Plan (oCEMP), Gas to Greener Ideas Limited Power, Monskland, Athlone, Co. Roscommon. AWN Consulting, 2024.

APPENDIX A

RELEVANT PLANNING PERMISSIONS WITHIN THE VICINITY OF THE SUBJECT SITE

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
2460085	Permission for the Construction of Stand By Generator approx. 5m x 1.5m x 2.3m high together with all associated site works. Arran Chemical Ltd hold an existing Industrial Emissions Licence - Licence Registeration Number: PO110-02 at	Arran Chemicals Ltd, Units 1 - 3, Monksland Industrial Estate, Athlone, N37 ED29	Awaiting Further Information	On - Hold
23421	Permission for development consisting of the construction of a 972 sq. m Light Industrial/Warehouse incorporating a two storey office at 118sq. m per floor totalling 1208sq.m, a service yard for truck turning and storage of construction products for use in Civil Engineering Projects	Monksland/Bellanamullia, Athlone, Co. Roscommon	Awaiting Further Information	On - Hold
2460007	Permission for development consisting of the amendment to the red line site outline used in the parent permission for this development of 27 houses, register reference PD/17/465 now nearing completion. The proposal will omit a strip with an area of 112.7 sq. metres from the site, along the north-western boundary of the site, with minor adjustments to the layout of the public open space and side and front boundary wall alignments. No other alterations are proposed to the layout or to the houses granted and constructed	Esker Lawns, Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	08/04/2024
2360076	Permission for construction of a livestock underpass, effluent holding tank and all associated site works	Mount Hussey, Moynure, Keelty & Keeloges, Athlone, Co. Roscommon, N37K304	Grant Permission with Conditions	27/03/2024
ABP-317588-23	1. The construction of a 110kV single-bay Air Insulated Substation (Cuilleen), 110kV Underground Grid Connection: a) 1 number control building (nine metres by fourteen metres) and associated internal 15kV underground cable, b) 1 number 15/110kV transformer (TRAFO) compund with concrete blast wall, and associated equipment including cable sealing end, surge arrestor, earth disconnect and voltage transformer, house transformer, and circuit breaker, c) 1 number diesel generator, d) 2.6 metre high palisade fencing and 1.4 metre high post and rail fencing; two number gated accesses to the substation; lamp posts, lighting masts, security cameras and poles, e) Use fo the access road to the Gas Fired Peaking Power Plant (under construction). 2. An approximate 1.95 Kilometre long 110kV single circuit undergorund grid connection between the proposed Cuileen 110kV Substation and the existing ESB Athlone 110kV Substation, of which approximately 0.5 KIlometre will be underneath public land to the north-west and south-eastof the M6 motorway, with the remainder being underneath puiblic roads. Approximately, 90 metres of the underground grid connection will require Horizontal Directional Drilling under the M6 Motorway, with two number temporary drilling pits, one located to the immediate north-west and one located to the immediate south-east of the M6 Motorway, each comprising a temporary work area with equipment and two metres high	Located at Monksland, Athlone, Co. Roscommon.	Approved with Conditions	16/01/2024

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
	HERAS fencing. The underground grid connection route will consist of a trench containing three 160 millimetres diameter high-density polyethylene power cable ducts, two 125 millimetres diameter high-density polyethylene pipe communication ducts, and a 63 millimetres diameter Earth Continuity Duct, along with associated cable joint bays, link boxes and communication chambers. 3. Electrical equipment bay within the existing Athlone 110kV Substation, to include cable sealing end, surge arrestor, earth disconnect, voltage transformer, circuit breaker, and post insulator. 4. A temporary construction compound to the west of the Gas Fired Peaking Power Plant (under construction), which will comprise of six containers to be used as offices, meeting room, welfare facilities (one of which is seven metres by three metres, and five of which are six metres by three metres), one generator, two stores, two bowser, and a security hut, car parking for construction workers, offload and storage area, pedestrian walkway and fencing. 5. All associated site development, drainage, and ancilliary works.			
ABP-313750-22	The development comprises the following: 1. 20 number wind turbines with an overall ground to blade tip height of 180 metres, a rotor dimeter of 162 metres and a hub height of 99 metres, associated foundations, hard-standing areas. 2. 15 number spoil storage areas at hardstands of turbines number 1, 2, 3, 4, 5, 6, and 7 (in the townlands of Turrock, Gortapaphuill, Cronin, and Tullyneeny) and turbines number 8, 10, 11, 13, 14, 17, 19, and 20 (in the townlands of Milltown, Cuilleenoolagh, Cloonacaltry, Feacle, and Tawnagh). 3. Provision of 1 number permanent meteorological mast with a maximum height of 100 metres for a period of 30 years from the date of commissioning of the entire wind farm. 4. Provision of 1 number 110kV onsite substation in the townland of Cam , along with associated control buildings, MV switchgear building, associated electrical plant, associated security fencing, and equipment and wastewater holding tank. 5. All underground electrical and communication cabling connecting the proposed wind turbines to the proposed onsite substation and associated control buildings and plant. 6. All works associated with the connection of the proposed wind farm to the national electricity grid via underground 110kV cabling from the site to the exisitng Athlone 110kV substation located in the townland of Monksland. Cabling will be placed within the public road corridor of the R362, R363, and L2047, or on private land. 7. Upgrade works to the exisiting 110kV Athone substation consisting of the construction of an additional dedicated bay to facilitate connection of the cable. 8. Provision of 2 number new site accesses north and south from the R363 and upgrade of 1 number junction south of the R363. 9. Provision of new access tracks or roads and upgrade of existing access tracks or roads. 10. 7 number overburden storage areas. 11. 2 number temporary construction compounds. 12. site drainage works. 13. Operational stage site drainage. 14. All associated site development works, apparatus and signage.	Cuilleenoolagh and other townlands, Co. Roscommon.	Grant Part Development with Conditions	23/11/2023

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
23197	Permission for development consisting of : (i) A ten-year planning permission for the construction of a permanent Battery Energy Storage System (BESS) facility adjacent to the consented TDC Community Solar Park (Pl. Ref. 20/36 & Pl. Ref. 21/350) with capacity of c. 80MW; (ii) The provision of up to 22 no. battery storage bays, each with 8 no. containerised battery modules connected to 2 no. inverters per bay and 1 no. transformer per bay; (iii) The containerised modules will typically house battery racks with multiple battery cells, control systems, fire detection and fire suppression systems and cooling systems; (iv) The provision of a BESS switchgear / substation unit (c. 33.2 sq m), storage/office unit (c.33.2 sq. m) and a control room (c.33.2 sq. m), all provided in standard containerised units; (v) The construction of a new access track (c.1,050m) linking the proposed BESS facility to the consented TDC Community Solar Park including 1 no. water crossing point; This will facilitate both construction and operational access while the entrance to the overall TDC Community Solar Park remains via the L2026 as consented under Pl Ref. 20/36. (vi) Minor amendments to the layout of the permitted solar farm (Pl Ref. 20/36 & Pl. Ref. 21/350) comprising the removal of permitted panels to accommodate the proposed access track; (vii) The provision of 2 no. car parking spaces adjacent to the BESS substation control room and 1 no electric vehicle charging point; (viii) All associated site development works and ancillary infrastructure above and below ground including drainage, security fencing, security lighting, landscaping (including additional planting) and ancillary grid infrastructure (A Natura Impact Statement (NIS) has been submitted with the planning application)	Taduff West and Taduff East and Mihanboy, Athlone, Co Roscommon	Grant Permission with Conditions	16/08/2023
22447	Permission to erect 300.00m2 or 55.00 kWp of photovoltaic panels on the existing roof of manufacturing building with all associated site works	Monksland Industrial Estate, Athlone, Co. Rosommon N37 F586	Grant Permission with Conditions	16/11/2022
22387	Permission for alterations to existing planning permission ref number PD/22/2 to include the following - increase in size of loading dock from 18 sq.m. to 38 sq.m., alteration in parapet height of the one storey building from 6m. to 6.6m., new window on southern elevation to office, new roller shutter forklift access door and high level canopy to southern elevation, new fire escape door to eastern elevation, new enclosed fire escape stair case on southern elevation serving roof and mezzanine level to maximum height of 20m, repositioning of single storey block 2 m. to the east, internal layout alteration to single storey block, omission of electrical switch room to the north west elevation, extension of ramp to loading dock from 10m. to 16m., increase in size of mezzanine area for plant only from 85 sq.m. to 159 sq.m., additional doors to north and western elevation for maintenance access	Alexion Pharmaceuticals, Monksland Industrial Estate, Monksland, Co. Roscommon	Grant Permission with Conditions	20/10/2022
22343	Permission for development consisting of a change of house type on site nos. 12 and 13 Esker Lawns, Monksland, Athlone, as an amendment to the previously approved parent permission (Reg. Ref. PD/17/465) and subsequent amendment permission (Reg. Ref. PD/20/556). The Proposed Development consists of replacement of 2 no. previously	Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	10/10/2022

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
	granted Type K, 3-storey, 4-bedroom semi-detached houses with 2 no. Type I, 2-storey, 4-bedroom semi-detached houses on sites 12 and 13. Site development and infrastructure works to remain as previously granted			
22234	Permission for development consisting of revisions and alterations of the permitted development of a gas fired power plant under Planning Register Reference PD/18/256. The revisions and alterations relate to the design of the gas fired power plant and will include a change to the electrical output of the power plant to 102MW with associated balance of plant, equipment and buildings including: an engine hall building with a height of 16.9m, (comprising 5 no. gas engines and ancillary infrastructure), an electrical annex building with a height of 18.7m; A workshop building with a height of 5.1m; An administrative building with a height of 6.1m; A tank farm building with a height of 5.7m; A security hut with a height of 3.3m; An exhaust stack with a height of 28.0m; A gas AGI including an instrument kiosk with a height of 4.9m and an analyser kiosk with a height of 2.9m; 2 no. storage containers, each 2.6m in height, radiator coolers with height of 8.5m; Tanks including 2 X diesel oil storage tanks (volume of 1860m3 combined); SCR urea tank (73m3) ; Lube oil storage tank (3m3); Lube oil maintenance tank (26m3); Pilot oil tank (26m3); Fire water storage tank (563m3); Waste oil effluent tank (16m3); Underground surface water attenuation tank (590m3). The revised proposal will involve a revised red line site boundary to provide for drainage and other works within the adjacent roadway. The development optimises the same access permitted under PD/18/256 and includes 12 no. number parking spaces, footpaths, landscaping; fencing and all other associated site development plant and equipment and other works including surface water and foul wastewater drainage, all on site 1.8 hectares in size (A Natura Impact Statement(NIS) is submitted as part of the planning application) (Permission is sought for a period of 10 years)	Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	22/09/2022
22314	Permission for an extension to the existing fire water retention pond consisting of the formation of new pond adjacent to the existing, both linked together with underground pipes, pump cabinet, perimeter fencing and access gates, footpaths, and all associated site works (This application relates to development which comprises an activity which holds an Industrial Emissions Directive Licence (Reg. NO. P0100-02)) at	Monksland, Athlone, Co. Roscommon, N37 EA09	Grant Permission with Conditions	22/09/2022
21728	Permission for the construction of a mixed use commercial unit, incorporating light industrial use and office space, together with the construction of a new site entrance, associated carparking area, including all ancillary site works and connection to services	Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	23/08/2022
222	Permission for development consisting of the provision of a new warehouse with ancillary accommodation and a loading bay. The building will be set mainly at single level - ground floor (905 sq.m) except small technical mezzanine floor (85 sq.m), total building floor area of 990 sq.m The maximum parapet height for proposed building shall not exceed 20 meters above ground level. Development will include also all associated infrastructure, road works,	Alexion Pharmaceuticals, Monksland Industrial Estate, Monksland, Co. Roscommon	Grant Permission with Conditions	06/04/2022

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
	additional carparking associated with development and removal of existing temporary modular office accommodation (Environmental Impact Statement (EIAR) accompanies this application			
21350	permission for the construction and operation of a solar PV farm, which will operate as an extension of the consented TDC Community Solar Park (Roscommon County Council Planning Ref. 20/36). The solar PV development will consist of solar arrays on ground mounted steel frames, with a maximum overall height of 3 metres, over an area of 60 ha and ancillary electrical equipment including string inverters and up to 13 no. transformer stations, and all other associated site development works and services, including: Internal solar PV farm underground electrical cabling and ducting; 1 no. temporary construction compound; Security fencing; CCTV camera stands; Provision of internal access tracks, including the installation of clearspan bridge structures, linking the solar PV development with the consented TDC Community Solar Park track network; Site drainage and landscaping, as required to facilitate the development. The solar PV development will use the site entrance (via the L2026 local road) consented under Pl Ref. 20/36. Planning permission is sought for a period of 10 years with an operational life of 30 years from the date of commissioning. (The application is accompanied by a Natura Impact Statement (NIS))	Townlands of Taduff West,, Taduff East,, Creagh & Cuilglass,, Thomastown E.D., Athlone, Co. Roscommon	Grant Permission with Conditions	16/03/2022
21444	Permission to construct a single storey side extension onto existing dwelling house comprising of a "granny flat" unit and all associated site works at	Galway Road, Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	20/01/2022
21499	Permission to construct a single storey extension to include an additional classroom and 2 No. SET rooms with a link corridor and all associated site development works	Crannagh Townland, Drum, Athlone, Co. Roscommon	Grant Permission with Conditions	06/12/2021
21405	Permission for a ground floor extension to existing access corridor with extended roof canopy to set back north façade, alterations to existing west and south façade windows at ground level for additional access and escape doors, external escape stairs and ladder to the south façade, alteration to existing high level windows on the south facade to be replaced with air intake louvres, and provision of exhaust flues and enclosure to the existing roof, and all associated site works	Jazz Pharmaceuticals Ireland Manufacturing & Development, , Monksland, Co. Roscommon, N37 AZ84.	Grant Permission with Conditions	12/10/2021
21372	a) 16 houses in total consisting of three 5-bed with study/office three-storey end-of-terrace houses; four 4-bed with study three-storey mid-terrace houses; three 4-bed with study three-storey end-of-terrace-houses; two 4-bed with study three-storey semi-detached houses; two 3-bed semi-detached dormer houses; one 2-bed detached dormer house; one 3-bed detached dormer house b) pedestrian connection link to St Joseph's Villas c) vehicular and pedestrian access from Galway Road and d) all ancillary site development works and services. The development is located within the curtilage of a protected	Baylough (Bellaugh) and Bogganfin, Galway Road, Athlone, Co Westmeath	Grant Permission with Conditions	05/10/2021

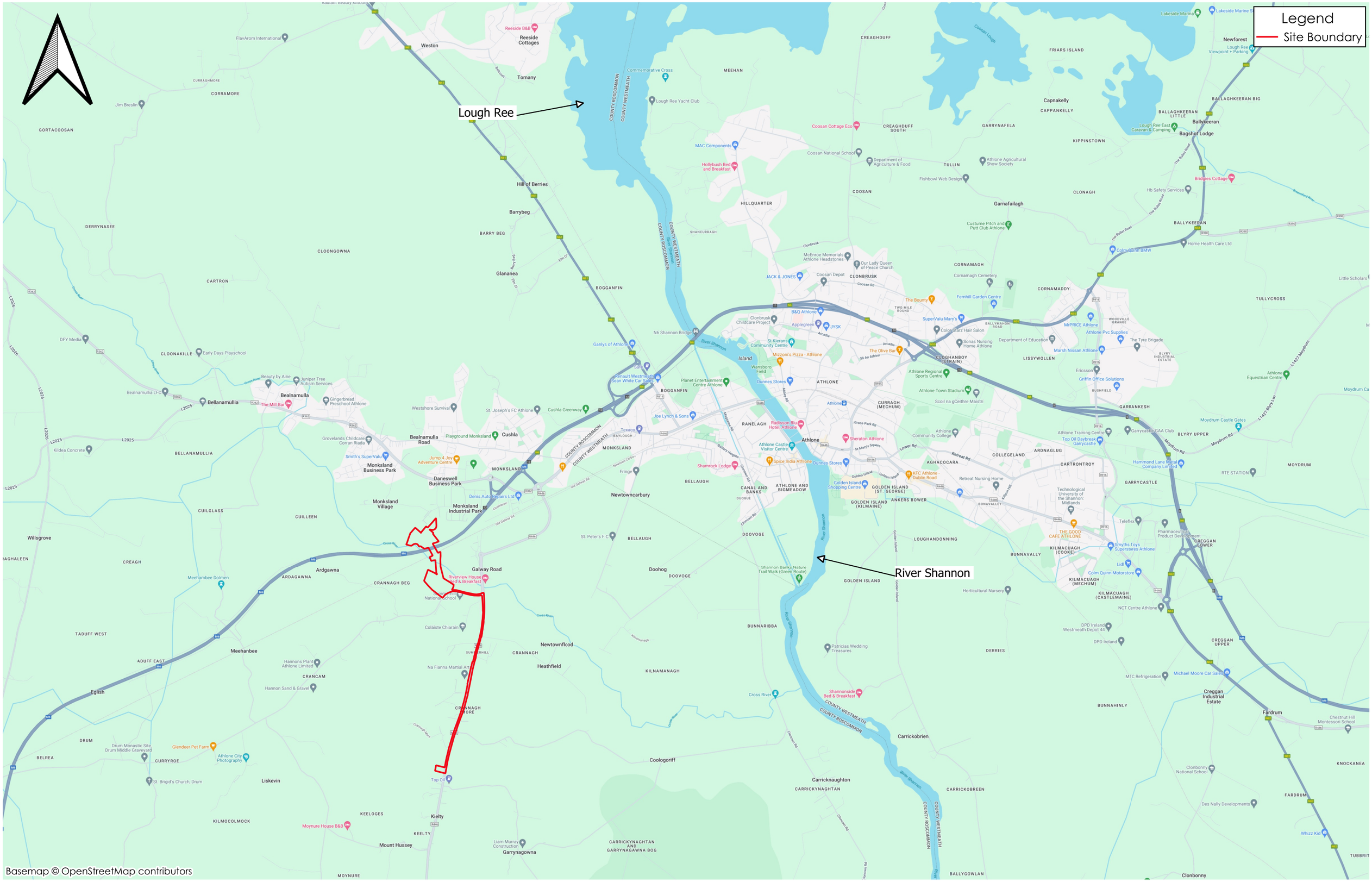
Application Number	Development Description	Development Address	Decision	Decision/Grant Date
	structure, ref no.079, Boundary Marker, Galway Road. (The development is an amendment of the previously granted development, planning ref 18/7226)			
20556	1. Permission for amendments to previously approved planning for 27 no dwellings (Register Reference Number PD/17/465), including (a) revisions to dwelling unit mix/type for House numbers 12-27 resulting in an overall change in unit mix/type from 5 no. 2-bed and 22 no. 3 bed, 2 storey houses arranged in 9 no. separate blocks as previously approved to 2 no. 2-bed 2-storey houses, 9 no. 3 bed 2 storey houses, 14 no. 4 bed, 2-storey houses and 2 no. 4-bed, 3 storey houses arranged in 13 no. separate blocks, (b) revisions to previously approved site layout, levels, open space, boundary and entrance treatments, (c) revisions to drainage, landscaping & associated site works. 2. Retention Permission for a retaining wall located at the Western boundary of the site	Monksland, Athlone, Co. Roscommon	Grant Permission with Conditions	18/06/2021
20350	for development which consists of extension and alterations to the existing car parking areas to provide 19 No. new car parking spaces, a truck maneuvering area and the redesign of 3 No. existing parking spaces to provide 2 No. new accessible parking spaces and all associated site ancillary works and landscaping	Monksland, Athlone, Co Roscommon	Grant Permission with Conditions	16/12/2020
2036	for the development of a solar PV panel array comprising photovoltaic panels on ground mounted frames within a site area of 70 hectares, 19no. single storey inverter/transformer stations, 1no. single storey DSO substation and DSO access road, 1no. single storey customer substation, 1no. single storey spare parts container, boundary security fencing with access gates, CCTV security cameras, associated electrical cabling and ducting, upgraded and new access tracks and all associated ancillary development and landscaping works on land	Taduff West, Taduff East, Creagh and Curraghaleen, Athlone South, Co. Roscommon	Grant Permission with Conditions	13/08/2020
2030	for development consisting of the construction of 3 wet scrubbing units as part of abatement system enhancements to serve the E.A.P.S. unit with a 15m high flue together with all associated pipework , steel frame supports and access platform, additional open yard area of 1,430 sq.m with 1.5m high RC wall to boundary side and chemical storage building approx. 338 sq.m floor area, 4.75m high at ridge level and all associated site works (Arran Chemical Company holds an existing Industrial Emissions Licence - Licence Registration Number: P0110-02)	Units 1-3, Monksland Industrial Estate, Athlone, Co. Roscommon	Grant Permission with Conditions	23/06/2020
19353	for the demolition of the Old Convent Buildings and associated storage buildings and associated site works, the provision of infill railings between the existing old stone pillars that formed the original entrance to the convent and revised site boundary for the new school that was granted permission under Planning Ref No. 18/321 at	Crannagh, Summer Hill, Athlone, Co. Roscommon	Grant Permission with Conditions	25/03/2020

Application Number	Development Description	Development Address	Decision	Decision/Grant Date
19348	to construct a new residential development of 78 no. units to include a crèche facility. The development will consist of 22 no. two storey 3-bed semi-detached dwellings, 18 no. two storey 4-bed semi-detached dwellings, 6 no. two storey 3-bed terraced units, 6 no. two storey 2-bed terraced units and 26 no. two storey 2-bed apartments, along with associated site works and services to include provision for photovoltaic solar panels and electrical charging points for green energy vehicles throughout the site	Monksland , Athlone, Co. Roscommon	Grant Permission with Conditions	04/02/2020
19394	to construct a single storey garage to the rear of existing dwelling house and all associated site works	Crannagh, Summerhill, Athlone, Co. Roscommon	Grant Permission with Conditions	15/01/2020
19400	permission for development consisting of the construction of an Emissions Abatement Plant System, together with all associated paperwork, steel frame supports and associated site works . (Arran Chemical Company holds an existing Integrated Pollution Prevention Control Licence - IPPC Licence Number P0110-02)	Units 1-3, Monksland Industrial Estate, Athlone, Co. Roscommon	Grant Permission with Conditions	05/11/2019

APPENDIX B

FIGURES

Contents



awnconsulting
A Trinity Consultants Company

Site Location

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Revision: *0*

Source: Google, 2024

awnconsulting
A Trinity Consultants Company

Site Location

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Revision: *0*

Source: Google & EPA, 2024

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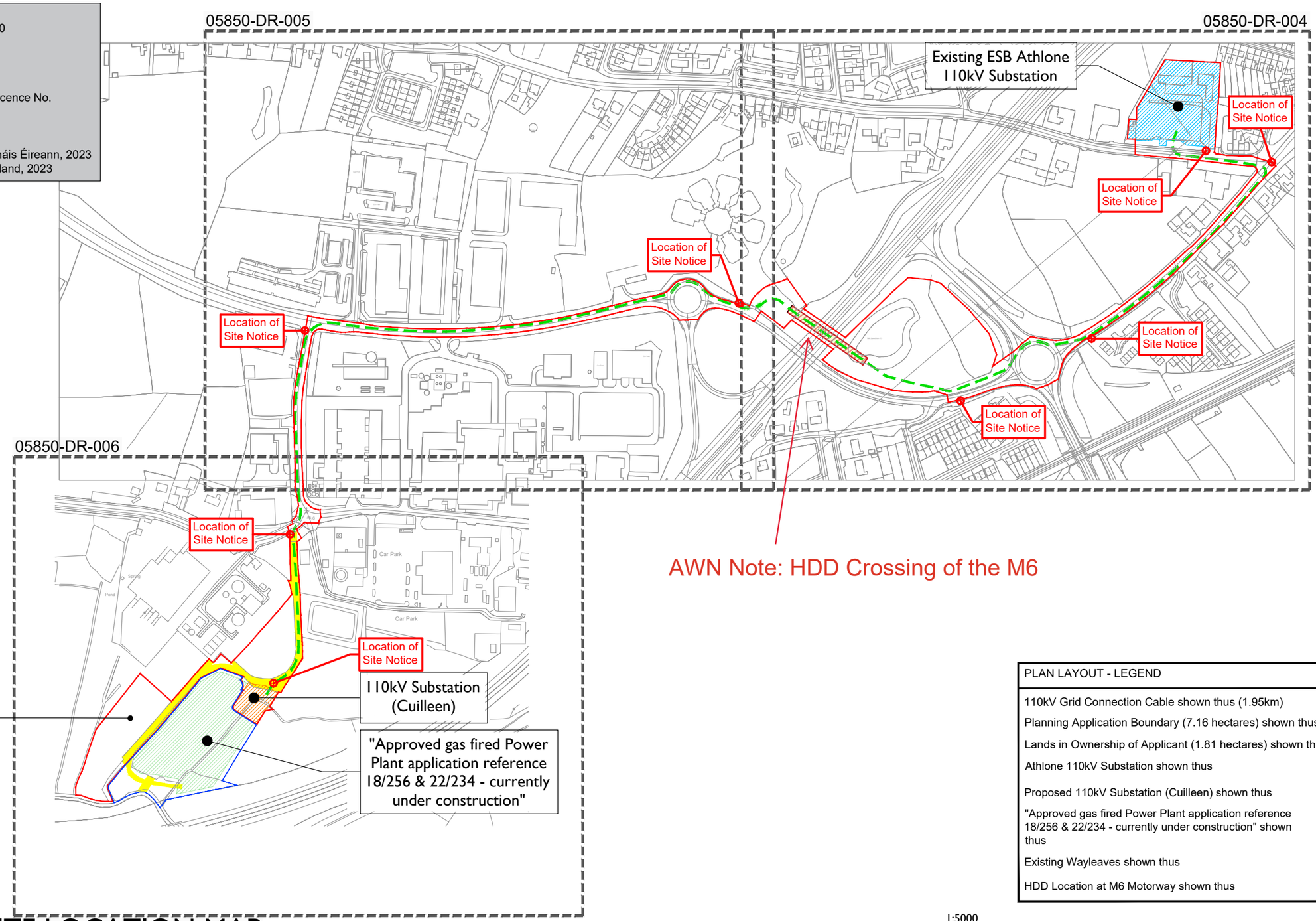
Reference No.'s:
3035-C, 3103-A

Ordnance Survey Ireland Licence No.
CYAL50261649



PLAN LAYOUT - LEGEND	
110kV Grid Connection Cable shown thus (1.95km)	
Planning Application Boundary (7.16 hectares) shown thus	
Lands in Ownership of Applicant (1.81 hectares) shown thus	
Athlone 110kV Substation shown thus	
Proposed 110kV Substation (Cuilleen) shown thus	
"Approved gas fired Power Plant application reference 18/256 & 22/234 - currently under construction" shown thus	
Existing Wayleaves shown thus	
HDD Location at M6 Motorway shown thus	

1:5000

100m 0 100m 200m 300m 400m 500m

OVERALL SITE LOCATION MAP

Scale : 1:5000

tli GROUP
Head Office
Beenreigh,
Abbeydorney,
Tralee, Co. Kerry
Ireland
Tel: 00353 66 7135710

CLIENT
Greener Ideas

PROJECT
110kV Electrical Substation (Cuilleen) & Grid Connection

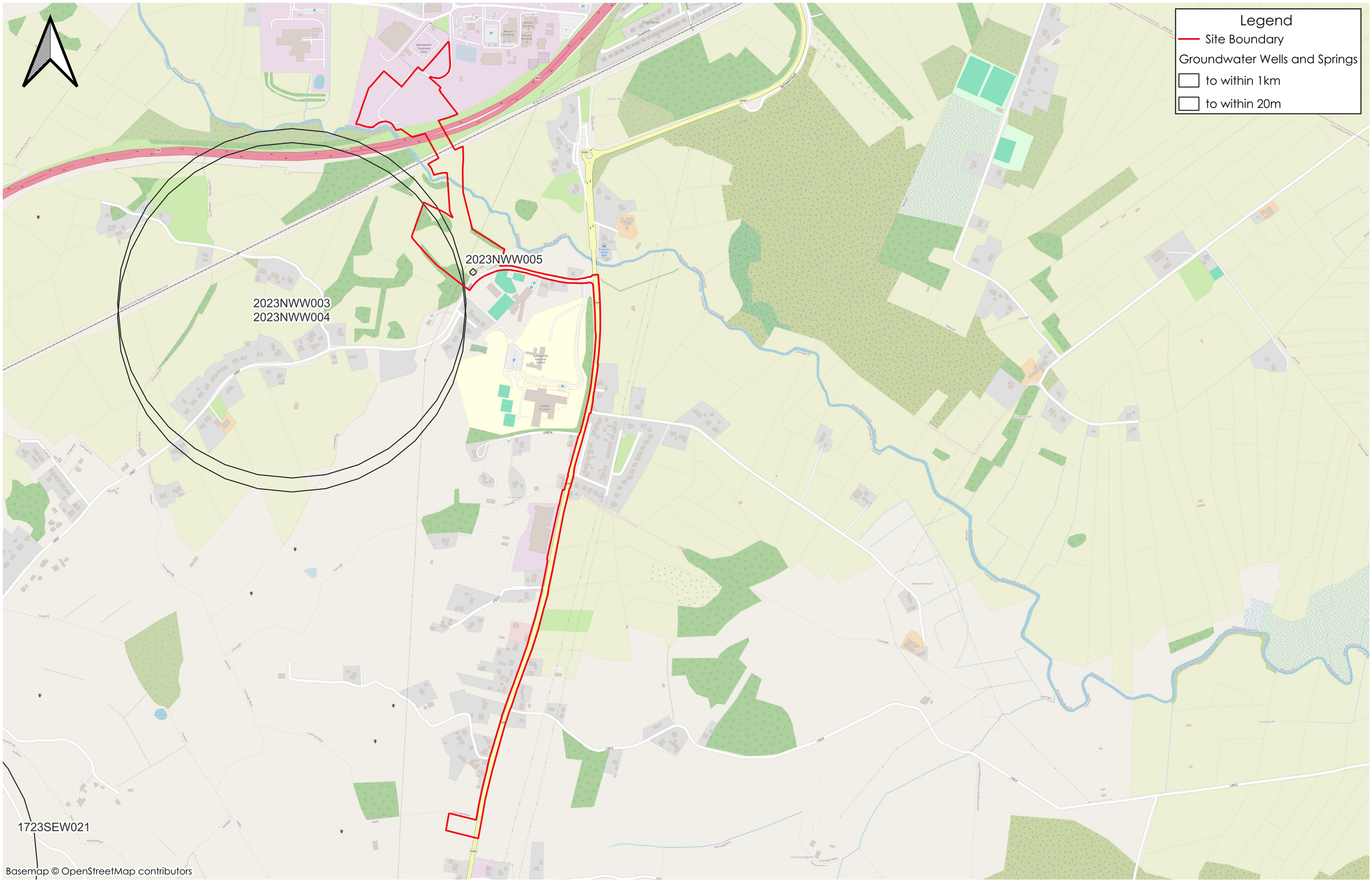
PROJECT NUMBER
05-850

SHEET NUMBER
05850-DR-003

SHEET TITLE
Overall Site Location Map

DRAWING STATUS
For Planning

ISSUE/REVISION		
P6	04.07.23	Issued for Planning
P5	03.07.23	Issued for Planning
P4	15.06.23	Issued for Planning
P3	09.06.23	Issued for Planning
I/R	DATE	DESCRIPTION



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Groundwater Wells and Springs

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Drawn By: *RAS*
Revision: *0*

Source: Google & GSI, 2024

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WFD Groundwater Bodies

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Source: Google & EPA, 2024

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Regional Hydrology

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Revision: *0*

Source: Google & EPA, 2024

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Local Hydrological Environment

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Generated: 02-09-2024
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Revision: *0*

Source: Google & EPA, 2024

APPENDIX C

CONSULTATION RESPONSE

Contents

1: National Parks and Wildlife Services (NPWS) Response. Department of Housing, Local Government and Heritage Development Applications Unit (DAU).

2: Archaeological observations/recommendations. ,Department of Housing, Local Government and Heritage Development Applications Unit (DAU).

3: Catherine Kerins, Senior Fisheries Environmental Officer, Shannon River Basin District. Inland Fisheries Ireland.

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Our Ref: **G Pre00221/2024**
(Please quote in all related correspondence)

1 August 2024

Jonathan Gauntlett
Principal Environmental Consultant
The Tecpro Building
IDA Business and Technology Park
Clonshaugh
Dublin 17
D17 XD90
Via email: jonathan.gauntlett@awnconsulting.com

Re: Consultation request for feedback on a Transmission Gas Pipeline Proposal for 2.6 km length of buried 200 NB carbon steel pipe located to the southwest of Athlone town, within County Roscommon and within the vicinity of the Cross River.

A Chara

I refer to correspondence received in connection with the above.

Further to the archaeological observations/recommendations of the Department that were submitted to you yesterday please find outlined below the nature conservation observations/recommendations of the Department.

The referral email indicates that a Natura Impact Statement (NIS) would likely be prepared as part of the application and the Department agrees with this approach given the location and nature of the proposed works. The NIS will need to address the site-specific effects that the project may give rise to and mitigate accordingly.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send any further communications to this Department's Development Applications Unit (DAU) at manager.dau@npws.gov.ie, or to the following address:

The Manager, Development Applications Unit (DAU), Government Offices, Newtown Road, Wexford, Y35 AP90

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Sinéad O' Brien
Development Applications Unit
Administration

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Our Ref: **G Pre002212024**
(Please quote in all related correspondence)

31 July 2024

Jonathan Gauntlett
Principal Environmental Consultant
The Tecpro Building
IDA Business and Technology Park
Clonshaugh
Dublin 17
D17 XD90
Via email: jonathan.gauntlett@awnconsulting.com

Re: Consultation request for feedback on a Transmission Gas Pipeline Proposal for 2.6 km length of buried 200 NB carbon steel pipe located to the southwest of Athlone town, within County Roscommon and within the vicinity of the Cross River.

A Chara

I refer to correspondence received in connection with the above.

Outlined below are archaeological observations/recommendations of the Department.

Archaeology

The Department has reviewed the supplied correspondence and scheme mapping.

The information provided was not sufficiently detailed to allow for a full assessment of the archaeological implications of this proposal. The Department, however, wishes to advise that you should retain the services of a Consultant Archaeologist to carry out the Archaeological Impact Assessment (AIA) as part of the overall Cultural Heritage Impact Assessment (CHIA) of the proposed development.

The Department advises that the following are carried out as part of an AIA:

- Desk based research
- Site inspections and walkover surveys
- Appropriate non-invasive and invasive archaeological investigations as required to ensure an informed assessment; these may include (as appropriate):
    - Targeted non-intrusive advance geophysical survey or prospection (such as Ground Penetrating Radar Surveys)
    - Targeted advance archaeological test excavation
    - Targeted underwater archaeology surveys or wade surveys
    - Targeted built heritage surveys

- Any and all intrusive advance investigations (such as, but not limited to, ground investigations for soils/geology/hydrogeology) carried out as part of the design process should be subject to a programme of archaeological monitoring by a suitably qualified archaeologist.

The results of these investigations should form part of the design process and be incorporated within the AIA. The Department is happy to provide further advice and clarification as and if required in relation to the preparation of suitably comprehensive assessments as outlined above, with particular regard to the scope and locations for any advance non-intrusive prospection, advance test excavation, underwater archaeology surveys/wade surveys or built heritage surveys that may be appropriate to inform the assessment of this proposed scheme.

Notwithstanding the above, the Department awaits the submission of this assessment before commenting further.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

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Sinéad O' Brien
Development Applications Unit
Administration

Iascach Intíre Éireann
Inland Fisheries Ireland

Jonathan Gauntlett
Principal Environmental Consultant
AWN Consulting

The Tecpro Building,

IDA Business and Technology Park,

Clonshaugh, Dublin 17, D17 XD90

By Email

15/07/2024

Re.: Proposed pipeline crossing under the Cross River and Temporary Bridge over the Cross River

Dear Mr Gauntlett,

Inland Fisheries Ireland (IFI) is the statutory body with responsibility under the provisions of the Fisheries Acts for the management, conservation and protection of Ireland's fishery resource. This includes the protection of both the instream and riparian habitat and the water quality of all watercourses across the proposed site and their associated catchments.

This project has a proposed crossing under and a temporary bridge crossing over the Cross River. The River Cross River is a salmonid tributary of the River Shannon, which is a trout fishery and provides valuable spawning and nursery habitat for wild brown trout.

IFI draws attention to the requirements of the Water Framework Directive (WFD) that all waters should meet the quality elements to comply with good ecological status. The WFD requires that member states protect inland surface waters and shall implement the "necessary measures to prevent deterioration of the status of all bodies of surface waters".

In relation to the information supplied, Inland Fisheries Ireland (IFI) has considered the application and has the following observations and recommendations to make:

IFI request that a final drawings and a directional drilling method statement with details of the proposed mitigation measures is agreed with IFI prior to works commencing. Monitoring should be undertaken whilst each watercourse crossing and directional drilling is being completed. This monitoring should be agreed with IFI in advance of works. IFI request an appraisal report in relation to geotechnical and ground conditions to determine that the crossing is likely to be completed safely without risk to the aquatic environment.

Iascach Intíre Éireann
Inland Fisheries Ireland

IFI has a strong preference for the completion of directional drilling outside of the closed season in case of any unfavourable incidents occurring.

A final design and method statements for the temporary crossing shall be agreed in advance of works with IFI, the method statement shall contain relevant environmental mitigation and control measures. The abutments for the temporary crossing shall be a minimum setback of 2 metres from the top of each river bank. The temporary crossing shall be constructed in such a way that it drains away from the Cross river and that any run off is taken away from the River banks on either side.

An environmental management plan should be produced for the project to include strict control measures to prevent pollution of the aquatic environment during construction.

During construction surface waters drainage, including any excavation dewatering, must be treated to allow settlement, e.g. through silt bags/ponds, prior to discharge. At no time should any pollutant or any waters in excess of 25 mg/l suspended solids level be discharged to watercourses as a result of these works.

Method statements for any excavations or structures in close proximity to watercourses must be agreed with IFI. Buffer zones of at least 10 metres should be adhered to along watercourses. I attach for your reference a copy of IFI's Urban Watercourse Riparian Zone document.

It is the responsibility of the person planning the works to ensure an appropriate assessment screening has been carried out, if this is required. Please forward a copy of the AA screening to IFI.

There must be no spread of invasive species as a result of the proposed development. Biosecurity will be required pre and post works. IFI field work protocol can be viewed, as guidance, at https://www.fisheriesireland.ie/sites/default/files/2021-06/research_biosecurity_biosecurity_for_fieldsurveys_2010.pdf

The IFI publication: Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites should be followed at all times. https://www.fisheriesireland.ie/documents/624-guidelines-on-protection-of-fisheries-during-construction-works-in-and-adjacent-to-waters/file.htm

Please submit all method statements in good time to allow for review and comment before proposed commencement of works. Following agreement of all relevant method statements with IFI, IFI request notification a minimum of 5 working days notice prior to work commencing in relation to the Cross River temporary crossing and crossing under the Cross River. Please contact the undersigned at catherine.kerins@fisheriesireland.ie and Arnold.donnelly@fisheriesireland.ie

IFI and Local Authority Environment Section contact details should be included in the emergency plan and these can be supplied to the contractor once appointed. In respect of the above named planning application, Inland Fisheries Ireland (IFI) has considered the application and has the following observations and recommendations to make.

All in-stream works and any other works that may give rise to high suspended solids in close proximity to these watercourse or may impact on the Cross River and its tributaries and other salmonid tributaries

will be subject to the closed season (i.e. they cannot take place from 1st October to 30th April, note this date may be extended by Legislative changes in the future.) This is to avoid impacting on the aquatic habitat during the spawning season, and to reduce the potential impact on trout populations. It would be important that appropriate scheduling of works is allowed for. Any further proposed crossings of watercourses on the site or pipeline route must be the subject of specific consultation and agreement with IFI.

I understand that there are no proposed trenched crossings as part of this project.

An emergency plan should be produced, in particular for the Directional Drilling and IFI contact details should be included in the emergency plan and these can be supplied to the contractor once appointed.

Yours sincerely,

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Catherine Kerins
Senior Fisheries Environmental Officer
Upper Shannon
Shannon River Basin District