

Walterstown 110 kV Substation

Construction Environmental Management Plan

January 2026

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Construction Environmental Management Plan

January 2026

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
PL1	January 2026	R. Izzard	A. Sethi	N. Roche	For planning issue

Document reference: PL1 | 229101684-MMD-01-XX-RP-C-003

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1 Introduction

1.1 Introduction

Mott MacDonald Ireland Limited (Mott MacDonald) has been appointed by the Electricity Supply Board to prepare a Planning and Environmental Considerations Report (PECR) to accompany a planning application for a new 110 kV/38 kV/MV Gas Insulated Switchgear (GIS) substation located in the townland of Walterstown, Dunboyne, County Meath.

This Construction Environmental Management Plan (CEMP) accompanies the PECR and is submitted as part of the planning application.

1.2 Overview of the Proposed Development

The Proposed Development is located off Jarretstown Lane, in the townland of Walterstown, Dunboyne, County Meath.

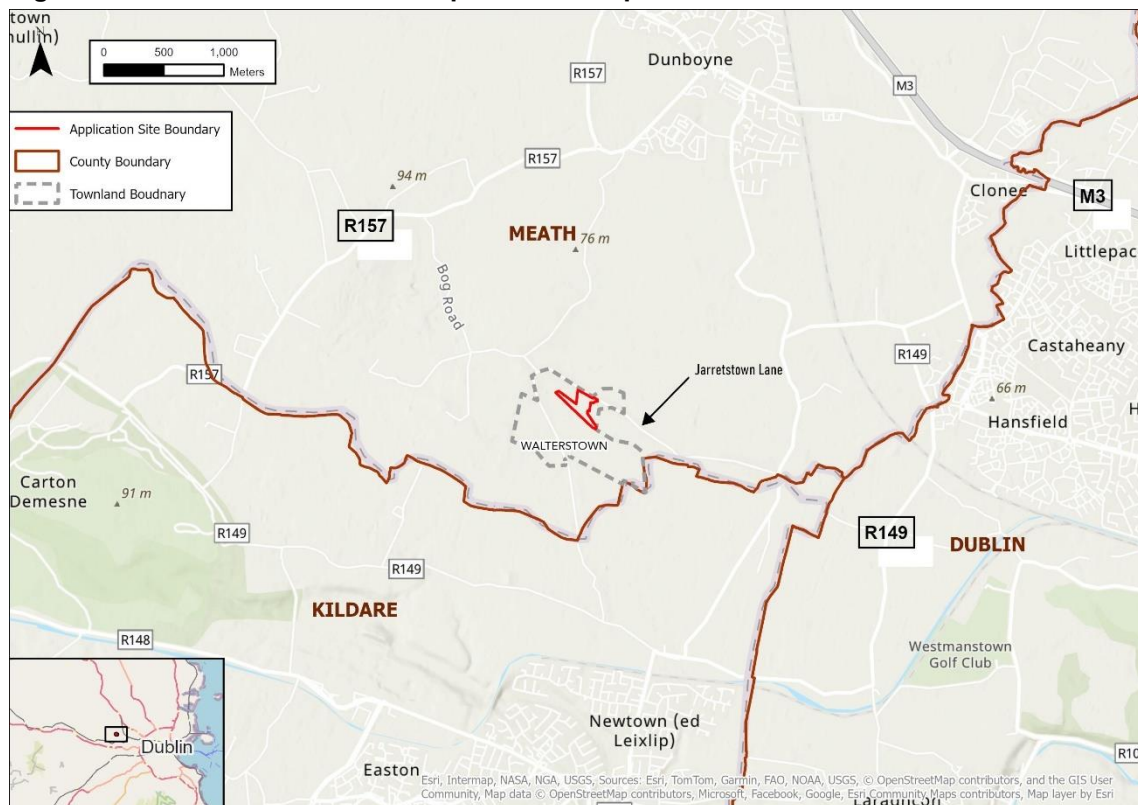
The Proposed Development will consist of the construction of a 110 kV/ 38 kV/ Medium Voltage (MV) electrical substation and will include the following:

- Construction of 1 no substation compound (c. 5650sqm) securely enclosed` with 2.6m high palisade fencing and gates, containing:
 - 1 no. 110 kV Gas Insulated Switchgear (GIS) building (c. 707sqm footprint; c. 12m in height);
 - 1 no. 38 kV Gas Insulated Switchgear (GIS) building (c. 232sqm footprint; c. 7m in height);
 - 2 no. Bunded 110 / 38 kV Transformers (c. 5m in height) with associated electrical equipment, 2 no. Bunded 38 kV/ MV Transformers (c. 5m in height) with associated electrical equipment;
 - 2 no. fire walls (c. 5.5m height by c. 5m length) separating the 110 / 38 kV Transformers and 38 kV/ MV Transformers;
 - 3 no. bunded Arc Suppression Coils (c. 4m high) with associated electrical equipment;
 - Neutral earth resistor (c. 2m height) and neutral earth switch (c. 3.9m high);
 - 2 no. 110 kV double circuit Line Cable Interface Masts (LCIM) (c. 17m high);
 - Concrete post and rail fence (1.4m high);
 - Underground cabling between the 110 kV GIS building and the new Line Cable Interface Masts (LCIM);
- Dismantling of 1 no. existing 110 kV Overhead Line timber poleset (c. 20m height);
- Diversion of the existing 110 kV Dunfirth-Kinnegad-Rinawade overhead line to connect to the new Line Cable Interface Masts (LCIM) and,
- All associated site development works including provision of new site entrance, internal access, lighting poles (c. 4m height), 3 no. lightning monopoles measuring c.15m high, 1 no. Emergency, stand-by Diesel Generator, telecommunications, landscaping, site services including drainage and all other ancillary works.

The existing Dunfirth-Kinnegad-Rinawade 110 kV transmission circuit, to the south of the site, will loop into the new Walterstown 110 kV substation.

Refer to Figure 1.1 for site location of the Proposed Development.

Figure 1.1: Site Location of the Proposed Development



Source: Mott MacDonald

1.2.1 About the ESB

ESB was established in 1927 as a statutory corporation in the Republic of Ireland under the Electricity (Supply) Act 1927. With a holding of 97%, ESB is majority owned by the Irish Government with the remaining 3% held by the trustees of an Employee Share Ownership Plan.

The ESB owns and operates assets across the electricity market, from generation, through transmission and distribution to supply. In addition, ESB provides associated services such as supplying gas, using its networks to carry fibre for telecommunications and developing electric vehicle public charging infrastructure.

ESB provides approximately 28% of electricity generation capacity in the Irish all-island market and supplies electricity to approximately 1.3 million customers. The ESB Group employs approximately 10,000 people.

ESB's mission is to bring sustainable and competitively priced energy solutions to its customers, and its vision is to be Ireland's foremost energy company competing successfully in the all-island market.

ESB Networks are the business unit operating in the regulated market. ESB Networks for Net Zero strategy explains how ESB Networks will help achieve the Government's Climate Action Plan and support the decarbonisation of the electricity system by 2040.

1.3 Purpose of this CEMP

The purpose of this CEMP is to document and describe the main activities that will be undertaken to facilitate the Proposed Development and to provide a framework of environmental

management procedures that will be implemented prior to commencement of, and throughout the duration of, the proposed works. The CEMP will be a key contract document, which will ensure that all mitigation measures, which are considered necessary to protect the environment are implemented.

This CEMP will remain a 'live' document which will be implemented at a minimum. It will be reviewed and updated as necessary in consultation and agreement with the local authority to ensure that the measures implemented are effective. The revised document will be then submitted to the Employer – ESB (see Section 3.2 for details). The appointed Contractor will update this CEMP, as required within the parameters assessed in the application particulars, taking into account any conditions of the statutory approval (which, it is anticipated, will include a requirement for agreement of the content of the CEMP with the relevant planning authority – Meath County Council).

The primary objective of the CEMP is to safeguard the environment, site personnel and nearby sensitive receptors from site activity which may cause harm or nuisance. As such, the CEMP sets out a project framework to ensure key control measures presented within the technical assessments, submitted as part of the planning application, are translated into measurable actions and are appropriately implemented prior to and during construction of the proposed works. As part of this framework, transparent and effective monitoring of the receiving environment during construction will be used to inform and manage ongoing activities on site and to demonstrate effectiveness of the measures outlined therein.

A contractual obligation will be included within the tendering processes and implemented on appointment of the Contractor to ensure that the proposed works are developed in compliance with the requirements of the CEMP, PECR and relevant planning conditions which will take precedence over this current version of the CEMP in the event of conflicting information.

1.4 Structure of this CEMP

The structure of this CEMP is set out below.

- Chapter 1 describes the purpose of this CEMP.
- Chapter 2 describes the proposed construction activities.
- Chapter 3. describes the roles and responsibilities of the construction phase team.
- Chapter 4 describes the environmental management procedures and environmental commitments from the PECR that will be implemented.
- Chapter 5 includes an Emergency Response Plan.
- Chapter 6 describes the training and auditing protocols that will be implemented.
- Chapter 7 describes the communications and procedure for complaints.

Appendix A of this CEMP includes construction phase Resource and Waste Management Plan (RWMP) and Appendix B includes a construction Traffic Management Plan (TMP). The RWMP and TMP will remain 'live' documents which will be implemented at a minimum. These documents will be reviewed and updated as necessary in consultation and agreement with the local authority to ensure that the measures implemented are effective.

2 The Proposed Development

2.1 Characterisation of the Site and Surrounding Areas

The site is a greenfield site, currently in use for agriculture. Access to the site is from the local road, Jarretstown Lane, to the northern extent of the application site boundary. There are a number of residential dwellings and agricultural uses located in the surrounding area along the local road. Hansfield Rail Station is located approximately 3km to the east of the site and Leixlip (Confey) Rail Station is located approximately 2.5km to the south. The site does not coincide with any Public Rights of Way footpaths.

2.2 Construction Phase Activities

2.2.1 Construction Schedule

The construction works will include site preparation works, construction of the main building and structures, and site finishing works. It is envisaged that the civil works will take approximately 12 months to complete. Following this, electrical installation and commissioning will take place, for approximately 18 months. This is subject to availability of required outages of the existing 110 kV overhead line from the electrical transmission system operator, EirGrid, and the time of year, weather conditions and the availability of specialised equipment.

Table 2.1 provides an outline construction schedule for the Civil Construction and Electrical Installation phases with approximate timelines.

Table 2.1: Outline Construction Schedule

Phase	Activity	Approximate Timeline	Total
Civil Construction	Site Preparation	8 weeks	52 weeks
	Civil Construction	44 weeks	
Electrical Installation	Electrical Installation	52 weeks	78 weeks
	Electrical Commissioning	26 weeks	

2.2.2 Construction Plant and Machinery

The typical plant to be utilised during construction of the substation is presented in Table 2.2.

Table 2.2: Construction Plant & Machinery

Phase	Plant	BS5228-1 Reference
Site Preparation	Track Excavator	C2.22
	Pneumatic Breaker	D2.11
	Dump Truck	C1.11
	Wheeled Loader Lorry	C2.26
	Dozer	C2.10
Foundations	Track Excavator	C2.22
	Pneumatic Breaker	D2.11
	Concrete Pump	C3.25
	Compressor	C3.19

Phase	Plant	BS5228-1 Reference
Steel Erection	Poker Vibrator	C3.19
	Tower Crane	C4.48
	Articulated Lorry	C11.10
	Electric Impact Torque Wrench	
General Construction	Hand Tools	
	Pneumatic Circular Saw	D7.79
	Internal Fit Out	
Landscaping	Dozer	C2.10
	Dump Trucks	C1.11
	Surfacing	D8.25

Source: ESB, 2025

2.2.3 Construction Methodology

2.2.3.1 Site Preparation and Enabling Works

All personnel involved in site preparation and groundwork will undertake a comprehensive site induction and be briefed on the existing site constraints and restrictions before any works commence.

The site preparation and groundworks are envisaged to be carried out in the following sequence:

- Demarcation of construction works area, including site levelling to prepare the works area.
- Topsoil will be stripped using excavators and stockpiled within the construction compound.
- Stone for compound surfacing and access road will be delivered in a tipper truck and graded into place using an excavator.
- Once the stone base is in place, temporary perimeter fencing and gates will be erected, all within the Proposed Development site boundary.
- Once compound fencing and gates are in place, mobilisation of the site offices and construction compound will commence.

2.2.3.2 GIS Building

The main civil works associated with the construction of the substation comprise the following:

- The foundation works will commence after the completion of the site grading. The foundation installation includes – excavation, form work, steel reinforcement and concrete placement. Excavated materials will be reused on site or disposed off-site to an appropriately licensed facility.
- Following the installation of the foundation, construction activities for the erection of structural steelwork will commence.
- Cladding and building finishing work and the installation of building services, eg, drainage, internal access road, will be undertaken once the structural frame and steel support structures are completed.
- Construction of permanent surface water drainage works.
- Miscellaneous civil works including paving, permanent fencing, landscaping and completion of works.

2.2.3.3 110 kV Circuit Transfer

The cable trenches will be planned in advance in order to ensure that the work is completed in the most efficient manner without disruption to existing services on site.

The existing Dunfirth-Kinnegad-Rinawade 110 kV circuit will be diverted from the two new 110 kV double circuit Line Cable Interface Masts (LCIM) and the 110 kV underground cable is proposed to be installed connecting the new masts and the transformer within the 110 kV substation.

Removal of the 110 kV Timber Poleset

The Proposed Development comprises dismantling and removal of existing 110 kV Overhead Line timber poleset of the exiting Dunfirth-Kinnegad-Rinawade 110 kV circuit. The poleset is located to the south of the proposed substation.

The methodology for the dismantling and removal of the OHL tower is as per the following:

- Set up of temporary working area with fencing installed around the tower location.
- The conductor will be disconnected from the poleset by releasing the line tension and winching of conductors onto drums.
- The poleset will then be cut down at ground level and removed from site, which together with other hardware and fittings will be removed from the construction area site for disposal by licensed waste Contractors in accordance with the Waste Management Act, as amended and associated regulation.

Installation of the new 110 kV underground cables

The Proposed Development will include installation of new 110 kV underground cables from the two proposed LCIMs to the proposed 110 kV substation. The new cables will be ducted, and the ducts laid mostly in trefoil formation.

The methodology for the installation of new 110 kV underground cables is as per the following:

- A trench will be excavated in accordance with the planning drawing PE424-D7001-001-003-011.
- Ducts for the cables will be laid in the trench and compacted in layers to backfill around them and will be encased in Hydraulically Bound Granular Material A (HBM) in accordance with the Transport Infrastructure Ireland (TII) specification CC-SPW-00800.¹ The compaction will be as per Clause 3.4.2.1 and Table 3.11 of these specifications (TII, 2023).
- To ensure the ducts remain in trefoil formation during backfilling, cable ties, non-metallic straps or ropes will be wrapped around them. Red marker strips will be placed above the ducts followed by the backfill of the rest of the trench.
- Yellow warning tape will be laid within this backfill.
- Once excavations are backfilled, the top layer (topsoil or road pavement) will be reinstated as timely as practicably possible.

Installation of new 110 kV Line Cable Interface Masts

The Proposed Development will include installation of two new 110 kV LCIMs to the south of the site boundary.

The methodology for the installation of LCIMs is as per the following:

- Site clearance and site preparation works will be carried out.

¹ Road Pavements – Unbound and Hydraulically Bound Mixtures CC-SPW-00800 (TII, 2023)

- Foundation excavations will be carried out specifically for the type of foundation required depending on ground conditions. When each leg is excavated, concrete is poured to provide a stable base on which the tower stubs will rest. Once concrete is cured, the tower stubs are lowered in position and subsequently concrete is repoured into the foundation. Once this pour is completed and the shear block is shaped, the tower foundations are backfilled, one leg at a time, with material already excavated.
- Once the foundation erection is completed, the tower body steelwork can be assembled. Tower sections are typically assembled on the ground and lifted in place, via a crane. A derrick pole may also be utilised, to lift small sections of steel into place using the derrick and a winch.
- Once excavations are backfilled, the lands around the LCIM foundations will be reinstated as timely as practicably possible.

2.2.3.4 Access Road

A new internal access road will be constructed within the proposed GIS substation site (approximately 67m in length and 5m in width). The corner radius of 9m is proposed where the access road ties-in to the local road. There A small stretch of road (approximately 12m in length and 5m wide) is proposed which connects the access road to the private property to the east of the site. The geometric design for the direct access is in accordance with the Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated, and compact grade separated junctions) (TII, 2023)².

The proposed internal access road from the entrance to the substation compound will be an asphalt road. Based on the available preliminary ground information details, a concrete pavement slab of 175mm thickness laid on a 225mm sub-base is proposed. Beneath these two layers, a granular capping layer will be proposed to enhance the ground stiffness. The alignment for the proposed access road is detailed in the planning drawing 229101684-MMD-00-XX-DR-C-0120 to 0122.

The internal road running east-west within the substation compound will be asphalt and the internal road running north-south within the substation compound will be concrete.

A suitable road design will be developed following pre-construction ground investigation works. The concrete road pavement details are shown in drawing 229101684-MMD-00-XX-DR-C-0162.

2.2.3.5 Temporary Construction Compounds/Laydown Areas

A temporary construction compound/laydown area is proposed to the north of the substation. The location of the temporary compound/laydown area is indicated on planning drawing 229101684-MMD-00-XX-DR-C-0120.

The appointed Contractor(s) will be responsible for organising site compounds in consultation with the Environmental Manager.

The Environmental Manager will be responsible for the management of the site compounds in accordance with the CEMP. The Contractor's compounds will be used for storage of construction materials, as well as construction equipment and machinery.

The Contractor will ensure that the proposed compound is secured, either with existing hedgerows/treelines, or new palisade fencing.

²Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated, and compact grade separated junctions) (TII, 2023) Doc no. TII-DN-GEO-03060 <https://cdn.tii.ie/publications/DN-GEO-03060-03.pdf>

Re-fuelling of plant and machinery will take place within the compounds in areas no less than 50m from any watercourses or abstraction wells including public water supplies. Temporary welfare facilities will be provided.

2.2.3.6 Construction Traffic and Personnel

During construction phase, the anticipated volumes approximately 8,000m³ of stone fill and approximately 2,000m³ of excavation material.

Based on these volumes, it is estimated that traffic movements will peak at 30 HGV vehicle (60 HGV movements) per day during the civil construction works. In total approximately 2800 HGV vehicle movements are anticipated, to import site equipment, plant, materials, including stone & concrete during civil works, the majority of which will be front loaded in the early stage of the construction works. The above vehicle assumptions are for the estimated volume of imported and exported materials.

The estimated number of construction personnel on site during peak construction is expected to be 45. Assuming vehicle occupancy of 1.25 persons per vehicle, up to 36 vehicles are expected per day during the civil construction works.

The delivery of the transformers to the site will constitute abnormal load.

2.2.3.7 Construction Access

Construction plant and vehicles will access the site via the existing rural road (Jarretstown Lane) to the northern boundary of the site.

2.2.3.8 Haul Routes

It is envisaged that the construction traffic to the site will use the regional road R149 (east of the Proposed Development site) or the regional road R157 (northwest of the Proposed Development site). Both regional roads are off the M3 Motorway.

2.2.3.9 Construction Working Hours

Construction activities will be undertaken during 07:00 – 19:00 Monday to Friday and 08:00 – 14:00 on Saturday, subject to agreement with local authority and conditions of planning.

No construction works will take place outside these hours, unless such work:

- is required under exceptional circumstances; or
- is carried out with the prior written approval of local authority.

3 Roles and Responsibilities

3.1 Introduction

This CEMP identifies the key roles and responsibilities for personnel employed during the construction works. The Contractor will update the CEMP and will set out detailed roles and responsibilities (including named individuals) and an organogram of the team structure.

The roles and responsibilities of the project team for the Proposed Development will be determined at the very outset of the construction phase of the project. The key roles are listed below, and specific details will be determined in the Detailed Design and Contract Stage.

Table 3.1: Roles and Contact Details Template

Role	Contact Details
Employer/ The Client	ESB
Telephone:	To be confirmed
Contact Person:	To be confirmed
Employer's Representative	
The Engineer:	To be confirmed
Telephone:	To be confirmed
Contact Person:	To be confirmed
Contractor	
The Contractor	To be confirmed
Telephone:	To be confirmed
Contact Person:	To be confirmed
Project Supervisor for the Design Process (PSDP)	
The Engineer	To be confirmed
Telephone:	To be confirmed
Contact Person:	To be confirmed
Project Supervisor Construction Stage (PSCS)	
The Contractor:	To be confirmed
Telephone:	To be confirmed
Contact Person:	To be confirmed

3.2 The Client / Employer

The ESB owns and operates assets across the electricity market, from generation, through transmission and distribution to supply. In addition, ESB provides associated services such as supplying gas, using its networks to carry fibre for telecommunications and developing electric vehicle public charging infrastructure.

ESB's role and responsibilities are set out in the 2000 Regulations; *in particular, Regulation 18(3)(a) gives ESB the exclusive statutory function: "to maintain the transmission system and carry out construction work in accordance with the transmission system operator's development plan, using its own resources and outsourcing to contractors."*

It is in this capacity that ESB is submitting a planning application to Meath County Council for the Proposed Development.

The ESBN is the licensed Transmission Asset Owner (TAO) for Ireland pursuant to Section 14 of the Electricity Regulation Act, 1999 (as amended). The role of the ESB is to ensure that the transmission system is developed in accordance with the requirements set down by EirGrid.

ESBN will, as Developer, be responsible for the development of the project and the implementation of the mitigation measures presented in this CEMP.

3.3 Contractor

A Contractor will be appointed following a tendering process and will be responsible for the Health and Safety of site workers, for the implementation of all mitigation as set out in Table 4.1, and the completion of the works to the satisfaction of the Employer.

The Contractor will submit a report to the Employer and/or the Employer's Representative for review and approval. The frequency of this report will be agreed with the Contractor and Employer and/or the Employer's Representative. The report will address the following as minimum:

- Summary of compliance with the CEMP including identification of any non-conformances.
- Interpretation of the result of ongoing monitoring.
- Detailed description of any issues and/or non-conformances identified during inspections and/or audits.
- Record of incidents and corrective actions (including corrective actions reports as appropriate).
- Synopsis of environmental complaints received/queries raised by stakeholders.
- Records of environmental training undertaken (as appropriate).

The Contractor will maintain records of all environmental documentation including monitoring, test results, method statements and plans. All records will be kept up-to-date and be made available for audits, inspections and periodical reporting to the Employer and/or the Employer's Representative and the relevant authority if required.

3.4 Project Supervisor Design Process

ESB Engineering and Major Projects are appointed to the role of Project Supervisor Design Process (PSDP).

The PSDP ensures co-ordination of the work of designers throughout the Proposed Development. This is to ensure effectiveness in addressing and co-ordinating safety and health matters from the very early stages of the Proposed Development.

3.5 Project Supervisor Construction Stage

ESB will appoint a Project Supervisor Construction Stage (PSCS) of the Proposed Development when they appoint Contractors to carry out the works. The PSCS will be responsible for developing the construction stage Safety and Health Plan, co-ordinating the work of Contractors and providing PSDP with information required in the Safety File.

3.6 Construction Director

The Construction Director will be responsible for the overall execution and organisation of all environmental related activities, as appropriate. Some responsibilities of the Construction Director will comprise the following:

- Overall responsibility for the implementation of the CEMP.

- Allocating the correct resources in order to ensure the successful implementation of the CEMP.
- Assisting in the management review of the CEMP for suitability and effectiveness.

3.7 Construction Manager

The Construction Manager is responsible for assisting the Construction Director with the successful execution of the Proposed Development. The responsibilities of the Construction Manager in respect of the CEMP comprise the following:

- To report to the Construction Director on the ongoing performance and development of the CEMP.
- To discharge his/her responsibilities as per the CEMP.
- To support and augment the Construction Management Team through the provision of adequate resources and facilities for the duration of the implementation of the CEMP.

3.8 Environmental Manager

An Environmental Manager will be appointed who will be a suitably qualified, competent and experienced professional to perform the necessary tasks, review environmental procedures and consult with the members of the construction team and stakeholders as required. The Environmental Manager will be responsible for:

- Ensuring that the CEMP and all relevant documents such as environmental control plans are developed, implemented and maintained on site.
- Updating the CEMP to address any subsequent planning conditions relevant to the Proposed Development.
- Maintaining a commitment register to ensure compliance with the mitigation and monitoring measures listed in Section 4.4, the conditions of the planning permission and any other relevant permits / consents required.
- Ensuring that construction occurs in accordance with the relevant environmental requirements and that such compliance is adequately recorded and documented.
- Conducting regular environmental inspections and compiling an environmental compliance report on a monthly basis.
- Attending site and stakeholder meetings as required.
- Keeping up to date with relevant environmental best practice and legislative changes.
- Ensuring all staff have undertaken adequate environmental inductions, awareness briefings and training.
- Dealing with environmental complaints.
- Managing and responding to environmental incidents and ensuring that all incidents are recorded and reported in an appropriate manner.

The Environmental Manager will be responsible for arranging and holding monthly meetings with the Employer and/or the Employer's Representative. The Environmental Manager will develop and distribute minutes on monthly meetings accordingly.

3.9 Environmental Clerk of Works

An Environmental Clerk of Works (EnCoW) will be employed to oversee implementation of mitigation measures. This will include monitoring and auditing the works and Contractor programmes and works method statements, to ensure mitigation is correctly implemented.

The EnCoW will be appropriately qualified and will have demonstrable experience in ecological supervision. The role of EnCoW can be fulfilled by one personnel or a team of several people at different stages, as appropriate.

The EnCoW will also ensure any disturbance licenses, if required are arranged based on relevant details and any significant findings of confirmatory pre-construction surveys outlined in the PECR. The EnCoW will advise on mitigation measures implementation including the scheduling of works and will be included in regular liaison meetings between project teams to ensure that plans are co-ordinated, and effects are minimised.

An EnCoW / ecologist from ESB will review and comment on the pre-construction survey reports, mitigation proposals, monitoring and compliance reports generated by the EnCoW. The EnCoW / ecologist will have the necessary experience and knowledge appropriate to the role.

All monitoring reports will be provided to the Employer's Representative team (ie the ESB), to and to local authority or other parties where required by condition.

3.10 Resource Manager

A Resource Manager will be appointed by the Contractor and will be responsible for all aspects of waste management at the different stages of the Proposed Development, and overall implementation of the construction phase Resource and Waste Management Plan (RWMP) and associated procedures. A construction phase Resource and Waste Management Plan has been prepared, included in Appendix A of this CEMP, which will remain a 'live' document and will be implemented at a minimum. It will be reviewed and revised as necessary in consultation and agreement with the local authority to ensure that the measures implemented are effective.

4 Environmental Management Procedures

4.1 Introduction

The Contractor will have a recognised environmental management system such as ISO 14001:2015 or be able to demonstrate that they are actively working towards implementing such a system.

The Contractor will undertake construction works in accordance with the provisions of the CEMP. The CEMP will be updated by the Contractor to address any subsequent planning conditions relevant to the Proposed Development and will be reviewed by the Employer and/or the Employer's Representative. The Contractor will review and update the CEMP as appropriate and will issue an updated CEMP.

The following sections detail the minimum control (mitigation) measures that will be implemented prior to commencement and throughout the duration of the proposed works.

4.2 General Site Rules

- The proposed works area will be demarcated, and pollution prevention measures will be implemented prior to commencement of construction works.
- All pollution control measures will be designed, installed, and maintained in accordance with CIRIA guidance for '*Environmental Good Practice on Site*' (C741) and '*Control of water pollution from linear construction projects. Technical guidance*' (C648) and under the supervision of an Environmental Clerk of Works (EnCoW).
- All mitigation will be implemented under the supervision of the EnCoW.
- The EnCoW will carry out daily inspection of works areas for evidence of pollution, and areas where corrective action is required.
- Report any signs of pollution or environmental damage to the Environmental Manager no matter how small.
- Report any spills, incidents or near misses that occur on site immediately to the Environmental Manager.
- Refuel only in designated areas with spill kits available.
- Do not dispose of anything into waterbodies or onto land. All waste will be sent to the designated site waste management areas.
- Do not throw litter, all waste will be sent to site waste management Contractor.
- Do not divert plant or machinery outside the authorised working boundaries of the site.
- The Contractor will develop Environmental Procedures to control the potential impacts from the construction phase of the Proposed Development. These procedures will be made available in the main site office and at the main Environment, Health and Safety information points on site.
- An emergency contact list will be prepared and made available to all construction staff employed. The contact list will be displayed prominently on site as well as at suitable locations where construction activity is being carried out around working areas. The contact list will include key environmental representatives that may need to be contacted in the event of an incident. A 24-hour emergency phone number will be maintained for the duration of the construction works. This number will be noted on temporary signage at each works area for cable works, and at the site entrance, at a minimum; and

- Emergency access routes will be maintained throughout construction and identify site access points for each working area. These will be developed in partnership with the emergency services and documented as part of the CEMP and Emergency Incident Response Plan.

4.3 Monitoring and Inspections

For the duration of the contract, the environmental performance of the Contractor will be monitored through site inspections and audits. The programme for monitoring, inspections and audits will be specified in the contract.

Record of all inspections carried out will be maintained and all actions will be closed out in a reasonable time. If additional monitoring and inspections are required due to any subsequent planning conditions, these will be added to the CEMP.

4.3.1 Monitoring

Monitoring will be undertaken in accordance with measures listed in Table 4.1.

4.3.2 Inspection

Inspections of construction activities will be carried out by the EnCoW on a daily basis to ensure all necessary environmental measures relevant to the construction activities are being effectively implemented by construction staff, ensuring legal and contractual conformity.

4.3.2.1 Daily Inspections

The daily inspections will include, but not be limited to, checking that:

- The site boundary is marked out and respected.
- All waste is appropriately stored and segregated.
- Waste skips are covered to prevent wind-blown litter.
- Drip trays are in place for all stored equipment and plant.
- All chemicals/fuels are stored with appropriate containment/bunds/cover.
- Construction noise is within permitted limits and does not create a nuisance.
- Dust does not create a nuisance.
- Fencing/hoarding is secure.

4.3.2.2 Weekly Inspections

The inspections will include, but not be limited to confirming that:

- Daily checklists have been completed.
- Waste storage areas have been checked and there is no build-up of waste materials.
- Spill kits have been checked and contain all relevant materials.
- The performance of all pollution control equipment has been checked and the equipment is working effectively.
- Noise reduction/monitoring equipment has been checked and is operating effectively.
- Septic tanks are not overfull/discharging.
- Special control measures identified in Permit/Planning Conditions and CEMP are adhered to.

4.4 Construction Environmental Management

The environmental commitments detailed in the PECR are listed in Table 4.1.

Table 4.1: Environmental Commitments as detailed in the PECR

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
Chapter 4 Population and Human Health				
4.1	Section 4.7	Construction	This Construction Environmental Management Plan (CEMP) has been prepared and will be implemented during the construction phase. The CEMP will remain a 'live' document which will be reviewed regularly and revised as necessary in consultation and agreement with the local authority to ensure that the measures implemented are effective.	Contractor
4.2	Section 4.7	Construction	ESB will appoint a designated point of contact to deal with community queries and complaints during the construction period.	ESB
4.3	Section 4.7	Construction	Monitoring Measures: At all times, the mitigation measures will be strictly monitored and assessed by the EnCoW. Site inspections will be carried out and an inspection log will be made available to the local authority when asked.	EnCoW
Chapter 5 Air Quality				
5.1	Section 5.6	Construction	Best practice mitigation measures from the IAQM ³ guidance are presented below, in line with 'Medium' risks and will be incorporated into the CEMP. <ul style="list-style-type: none"> ● Communication and Site Management <ul style="list-style-type: none"> – Develop and implement a stakeholder communications plan before work commences on site. – Display the name and contact details of person(s) accountable for air quality and dust issues on the application site boundary. This will be the Environmental Manager. – Display the head or regional office contact information. – Develop and implement a dust management plan (DMP), which will include measures to control other emissions. – Record all dust and air quality complaints, identify causes and take appropriate measures to reduce emissions in a timely manner and record the measures taken. – Make a complaint log available to the planning authority, when requested. – Record any exceptional incidents that cause dust and or air emissions, either on or off site, and the action taken to resolve the situation in the log book. ● Monitoring <ul style="list-style-type: none"> – Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, and record inspection results. This will include regular dust 	Contractor

³ Institute of Air Quality Management (January 2024 (Version 2.2)). 'Guidance on the assessment of dust from demolition and construction.'

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>soiling checks of surfaces such as street furniture, cars and windowsills within 100m of the application site boundary, with actions taken to reduce dust further if necessary.</p> <ul style="list-style-type: none"> – Carry out regular site inspections, record inspection results and make an inspection log available to the planning authority, when requested. – Increase frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. <ul style="list-style-type: none"> ● Preparing and maintaining the site <ul style="list-style-type: none"> – Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible. – Erect solid screens or barriers around dusty activities or the application site boundary that are at least as high as any stockpiles on site. – Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period – Avoid site runoff of water or mud. – Keep site fencing and barriers clean using wet methods. – Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. – Cover, seed or fence stockpiles to prevent wind whipping. ● Operations vehicles / machinery and sustainable travel: <ul style="list-style-type: none"> – Ensure all vehicles switch off engines when stationary – no idling vehicles. – Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment, where practicable – Impose and signpost a maximum-speed-limit of 15mph (24k/hr) on surfaced and 10mph (16km/hr) on unsurfaced haul roads and work areas ● Operations <ul style="list-style-type: none"> – Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction. – Ensure an adequate water supply on the site for effective dust/ particulate matter suppression/ mitigation using non-potable water, where possible and appropriate. – Use enclosed chutes and conveyors and covered skips. – Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. 	

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> – Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. ● Waste Management <ul style="list-style-type: none"> – No bonfires and burning of waste materials. Measures specific to earthworks – Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. – Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. – Only remove the cover in small areas during work and not all at once. ● Measures specific to construction <ul style="list-style-type: none"> – Avoid scabbling (roughening of concrete surfaces) if possible. – Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place. ● Measures specific to trackout <ul style="list-style-type: none"> – Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use. – Avoid dry sweeping of large areas. – Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. – Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. – Record all inspections of haul routes and any subsequent action in a site log book. – Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. – Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). – Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. – Access gates to be located at least 10m from receptors where possible. 	
5.2	Section 5.6	Construction	At all times, these mitigation measures will be strictly monitored and assessed by the Environmental Manager. Site inspections will be carried out, and an inspection log will be made available to the local authority on request.	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
Chapter 6 Climate				
6.1	Section 6.8	Construction	<p>The following measures to reduce carbon emissions during design and construction are proposed which are also included in this CEMP:</p> <ul style="list-style-type: none"> ● Design: <ul style="list-style-type: none"> – Use low-carbon materials where practicable such as low carbon concrete and/or steel with high recycled content where structurally appropriate; and – Consider maintenance processes within the design, for example choosing materials with longer durability or reduced maintenance requirements. ● Construction: <ul style="list-style-type: none"> – Use of renewable electricity where practical, such as solar-power, for construction lighting or construction cabins; – Minimise construction waste and set targets to divert waste from landfill; – Use of vehicles and plant with low exhaust emissions; – Substitute fuels for plant and equipment using electricity or low-carbon fuels where possible (for example use of alternative fuels such as Hydrotreated Vegetable Oil (HVO) for construction equipment); – Implement regular maintenance of construction equipment to ensure it is running efficiently; – Plant and equipment to be monitored (e.g. through telemetry) to ensure they are not left running unnecessarily; – Optimising transport of materials to site e.g. choosing local suppliers or more sustainable transport options; – Engaging the supply chain to reduce the number of vehicle movements relating to site material; – Minimise transport and travel demand of staff during construction by having a travel management plan for site personnel to encourage car-sharing, active travel, use of buses, and prioritise electric vehicles; and – Use of more efficient construction cabins (with insulation, renewable energy generation, low-energy lighting etc.). 	Contractor / ESB
6.2	Section 6.8	Operation and Maintenance	<p>The following measures to reduce carbon emissions during operation are proposed which:</p> <ul style="list-style-type: none"> ● Incorporate energy efficiency into the operation of the Proposed Development (using motion-activated low-energy lighting, building management systems where appropriate). 	ESB
Chapter 7 Noise and Vibration				
7.1	Section 7.7	Construction	The following specific mitigation measures will be implemented during the construction phase:	Contractor / ESB

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> phasing of the construction works to reduce the impact due to simultaneous activities use of quieter equipment and enhanced noise reduction kit (e.g. exhaust silencers) use of a temporary acoustic barrier (2.4m height) during site preparation to provide screening of activities affecting NSL1 and NSL2. The barrier material will have a mass per unit area exceeding 7kg/m² in accordance with the recommendations of BS 5228 Part 1:2009+A1:2014 (for example, plywood panels with a minimum thickness of 13mm). <p>ESB will appoint a designated point of contact to deal with community queries and complaints during the construction period.</p>	
7.2	Section 7.7	Construction	<p>Additionally, noise and vibration will be minimised by the following.</p> <ul style="list-style-type: none"> Construction works will reduce after 12:00 on a Saturday to avoid the sensitivity of the afternoon period Due to the short distance between site entrance area and the NSL1 and NSL2 it is important to engage with the residents before site preparation, even if this phase is very short (considering it is programmed over eight weeks for the entire site) 	Contractor
7.3	Section 7.7	Construction	<p>This CEMP will be implemented during the construction phase to minimise any construction noise and vibration impacts and in consultation with local councils. The Contractor is obliged to comply with Local Authority controls on noise and vibration during construction. This will include (but will not be limited to):</p> <ul style="list-style-type: none"> setting limits for the control of noise and vibration from construction activities the provision of mitigation measures required whilst adopting best practicable means noise or vibration monitoring where disturbance is reported as required. 	
7.4	Section 7.7	Construction	<p>A comprehensive noise and vibration monitoring protocol will also be implemented. As part of the CEMP, the Contractor will also develop and implement a stakeholder communications plan.</p>	Contractor
7.5	Section 7.8	Operation and Maintenance	<p>Complaints from local resident will be investigated, corrective action taken (if need be) and logged accordingly.</p>	Contractor / ESB
Chapter 8 Biodiversity				
8.1	Section 8.7	Construction	<p>The following mitigation measures will be implemented prior to commencement and throughout the duration of the proposed works.</p> <ul style="list-style-type: none"> An Environmental Clerk of Works (EnCoW) will be appointed prior to commencement of works to ensure adherence to the outlined mitigation. 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> This will include monitoring and auditing the works and Contractor programmes and works method statements, to ensure mitigation is correctly implemented and impacts to IEFs are minimised and avoided where practical. The construction programmes for projects in the vicinity of the Proposed Development will be reviewed and considered regarding the final construction programme for the project. This is to ensure temporary disturbance is minimised to biodiversity and appropriate water pollution prevention measures to protect off site water courses. 	
8.2	Section 8.7	Construction	<p>Pre-Construction Confirmatory Surveys</p> <p>In advance of enabling works, the Contractor will commission pre-construction confirmatory surveys of IEFs outlined in the PECR. These surveys will update the findings of the surveys completed in July 2025. Surveys will specifically confirm updated distribution of, and inform any revisions to proposed mitigation for:</p> <ul style="list-style-type: none"> Badger setts within the Zol of the Proposed Development. Frog spawn within the drainage ditches in the Zol of the Proposed Development if construction works take place during breeding season between February and end of July. <p>Confirmatory badger surveys will be carried out having regard to <i>Surveying Badgers</i> (Harris et al.1989) and record signs of badgers including tracks, hair, latrines and setts.</p>	Contractor
8.3	Section 8.7	Construction	<p>Habitat</p> <p>Removal of c. 27m (54m²) of hedgerow habitat will be monitored by the site EnCoW to ensure adjacent areas of hedgerow habitat are demarcated and avoided.</p> <p>Chapter 12 includes a proposal for extensive replanting (landscaping) with native woodland species. An area of approximately 5000m² (0.5Ha) will be planted with a native woodland mix of tree species. This replanting greatly exceeds woodland (hedgerow) loss (approximately 54m²) due to impacts from the Proposed Development.</p> <p>In addition to woodland planting an extensive area of grassland will be set out within the site during the final construction phase, refer to commitment reference 8.11.</p>	Contractor
8.4	Section 8.7	Construction	<p>Invasive species</p> <p>Prior to works commencing a full confirmatory invasive species survey will be carried out by an ecologist, appointed by the Contractor, in accordance with Guidance of Transport Infrastructure Ireland⁴. All other surveys will be carried out having regard to guidance of NRA (2009). The pre-construction invasive species surveys will be carried out within the works</p>	Contractor

⁴ TII (2020) The Management of Invasive Alien Plant Species on National Roads – Technical Guidance. Available online: <https://cdn.tii.ie/publications/GE-ENV-01105-01.pdf> [Accessed 11 September 2025]

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>areas, including compound locations and laydown areas, and along proposed access tracks to identify the presence of all invasive species within and adjacent to works areas.</p> <p>Any additional findings of this invasive species survey will be incorporated into the final CEMP for the works. The measures relating to the Invasive Species will be identified prior to any works commencing. These measures will be regularly reviewed and updated throughout the works to include for any additional invasive species encountered.</p> <p>An Invasive Species Management Plan is appropriate as a precautionary measure. This will set out site-specific and species-specific measures to manage invasive species for example if new invasives have been established since baseline surveys. It will incorporate the following measures as a minimum:</p> <ul style="list-style-type: none"> ● All machinery will be steam-cleaned prior to entering site ● Any stands of invasive species that are recorded within the site will be clearly marked out as restricted areas. No works will be carried out within the exclusion zones unless fully supervised by the EnCoW. ● The EnCoW will carry out a toolbox talk for all construction personnel which will provide information on how to identify and manage invasive species. ● A Check, Clean, Dry protocol will be undertaken with all equipment, machinery and vehicles entering and leaving the application site boundary. ● Any fill that is required will be from a licensed facility identified by the Contractor 	
8.5	Section 8.7	Construction	<p>Badgers</p> <p>Prior to any works commencing, a pre-construction badger survey will be carried out. Surveys will be conducted having regard to <i>Surveying Badgers</i> (Harris et al.1989) and record signs of badgers, including tracks, hair, latrines and setts. The extent of survey area will be defined as 150m beyond all works areas within suitable habitat as set out in <i>Guidelines for the Treatment of Badgers during the Construction of National Road Schemes</i> (NRA, 2006) to determine if there has been any change in badger and sett activity or expansion to the current sett.</p> <p>A description of setts, i.e., main sett, annex sett, or outlier sett will be provided by an ecologist, appointed by the Contractor, along with the level of activity at each. This will allow for an understanding of the importance of setts in the wider context of the local badger population.</p> <p>As per the <i>Guidelines for the Treatment of Badgers during the Construction of National Road Schemes</i>, where setts have been confirmed, no heavy machinery will be used within 30m. Lighter machinery (generally wheeled vehicles) will not be used within 20m of a sett entrance and light work, such as digging by hand or scrub clearance will not take place within 10m of sett entrances.</p> <p>Unless otherwise agreed in writing with the competent authority, during the breeding season (December to June inclusive), none of the above works will be undertaken within 50m of active</p>	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>setts, neither will blasting or pile driving within 150m of active setts. An assumption that a sett is active will apply unless proven otherwise during the course of investigation.</p> <p>All identified exclusion zones, as outlined above, will be clearly marked out on site and communicated to all site staff prior to works commencing.</p> <p>Where works may interfere with a badger sett directly, exclusion will take place as per NRA guidelines.</p> <p>During the construction phase management and protection measures should also include:</p> <ul style="list-style-type: none"> ● No excavations are to be left uncovered or without a means of egress (a sloped plank for example) overnight, as badgers may fall in or enter in search of food and become trapped ● No buildings or storage units are to be left open overnight, as badgers may enter and become trapped ● No poisonous or potentially harmful substances or materials are to be left unsecured overnight ● No vehicles or machinery are to be used installing exclusion fencing or gates <p>If a badger is discovered or any activity suggesting badgers have been disturbed during construction, all work must cease immediately, and the EnCoW should be notified as soon as possible to detail how best to proceed.</p>	
8.6	Section 8.7	Construction	<p>Bats</p> <p>Temporary lighting may be required during the construction phase of the works. Any temporary lighting associated with the construction works will be placed strategically by the Contractor following consultation with the ecologist appointed by the contractor such that illumination beyond the works area is controlled and kept to a minimum. Lighting will be cowed and directional, to reduce significant light splay. Lighting will be directed away from potential roosts and foraging habitats such as hedgerows and watercourses.</p>	Contractor
8.7	Section 8.7	Construction	<p>Breeding Birds</p> <p>The removal of vegetation which may be used as nesting sites by breeding birds, will be cleared where possible outside of the birds nesting season (1st March to 31st August inclusive).</p> <p>Where vegetation clearance is proposed within the nesting season, an ecologist appointed by the contractor will conduct pre-construction surveys to assess risk of disturbance to nesting birds to inform vegetation clearance activity. In the event where pre-construction surveys confirm or presume nesting birds are present, an exclusion zone will be established around the nesting bird (to include the risk of abandonment due to indirect disturbance), and no vegetation clearance may proceed until young have fledged, or nesting has failed. Pre-construction</p>	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			confirmatory surveys will be undertaken no more than 72 hours before clearance, after which repeat surveys will be required if vegetation has not been cleared.	
8.8	Section 8.7	Construction	Frogs Where construction works are proposed between the frog breeding season (1st February to 31st July inclusive), a site ecologist appointed by the contractor will conduct pre-construction surveys to check for frog spawn within drainage ditches before works commence. The site ecologist will monitor the presence of frog spawn and relocate frog spawn if present.	Contractor
8.9	Section 8.7	Construction	Watercourses (onsite and offsite) setback distance for works of at least 90m will be retained to the Oranstown Stream (EPA Code 09O10). Detail on water pollution controls during the construction and operation phase are outlined in commitment reference 9.1 to 9.9. Surface water management including attenuation pond to control runoff during operational phase are additionally outlined in Section 3.3.5 of the PECR to ensure water quality downstream is protected	Contractor
8.10	Section 8.7	Operation and Maintenance	No permanent lighting is proposed at the substation. Lighting will be automatic and triggered only when required for human access and health and safety requirements. Lighting will be cowed and directional, to reduce significant light splay. Lighting will be directed away from possible roost feature and foraging habitats (woodland) used by bats. Final lighting plans will be consistent with recommendations in Collins (2023) and reviewed by an ecologist.	Contractor / ESB
8.11	Section 8.7	Operation and Maintenance	In addition to woodland planting an extensive area of grassland will be set out within the site during the final construction phase. This grassland will be managed in a pollinator friendly manner consistent with recommendations in the All-Ireland Pollinator Plan. This will include minimal grass mowing to allow development of flowering native plant / grass species with cuttings to be removed from grassland areas. No wildflower seed mixes are proposed as they can do more harm than good.	Contractor / ESB
Chapter 9 Surface Water Resources and Flooding				
9.1	Section 9.7	Construction	The following mitigation measures will be implemented prior to commencement and throughout the duration of the proposed works. These measures are included in the CEMP, which will remain a 'live' document which will be reviewed regularly and revised as necessary in consultation and agreement with the Local Authority to ensure that the measures implemented are effective. <ul style="list-style-type: none"> ● An Environmental Clerk of Works (EnCoW) will be appointed prior to commencement of works. ● Works will not be carried out during extreme rainfall or high flows events. Met Éireann provides 5-day weather forecasts on its website (www.met.ie) and works will not take 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>place at least during yellow, amber, and red weather warnings as monitored by the onsite EnCoW.</p> <ul style="list-style-type: none"> In the case of a warning of a flood event, plant and materials vulnerable to flooding in areas of the construction compound will be relocated to parts of the compound that are considered to be not at risk of flooding. 	
9.2	Section 9.7	Construction	<p>All pollution control measures will be designed, installed, and maintained in accordance with CIRIA guidance for '<i>Environmental Good Practice on Site</i>' (C741) and '<i>Control of water pollution from linear construction projects. Technical guidance</i>' (C648) to minimise impacts to the Oranstown Stream. The following will be implemented.</p> <ul style="list-style-type: none"> A Resource and Waste Management Plan will be developed to ensure that waste generated during the project will be managed in a way that ensures the relevant provisions of the Waste Management Act 1996 and associated amendments and regulations are met, particularly with regard to the use of appropriately permitted Waste Contractors and destinations for waste materials. Sediment erosion and pollution control measures will be included in the CEMP and will be implemented for all construction works. This includes measures to manage soil and silt-laden water on site, accidental leaks/spills to ground and water quality monitoring to ensure compliance with environmental quality standards specified in the relevant legislation. The plan for erosion and sediment control will also specifically deal with the potential impacts of material deposition areas during the construction phase for Proposed Development. All construction staff will be properly trained to respond to accidental discharge or leaks and appropriate spill management kits will be in place to allow rapid response on site. An Incident Response Plan will be in place detailing the procedures to be undertaken in the event of spillage of chemical, fuel or other hazardous substances or wastes, logging of non-compliance incidents and any such risks that could lead to a pollution incident at any point over the proposed working areas. Prior to commencement of construction, the Contractor will prepare method statements for discharge of water from construction activities. ESB will apply for any permit licence agreements, if required, to permit the discharge of water during the construction phase. Water from construction activities will not be directly discharged into Oranstown Stream. Any such water will be treated and it will be ensured that the respective water quality statutory limits are met as set under the relevant EU environmental objectives for surface water. 	Contractor
9.3	Section 9.7	Construction	<p>The following mitigation measures will be implemented prior to commencement and throughout the duration of the works:</p>	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> ● Temporary gravel road with terram underneath will be provided where higher traffic volumes are anticipated to minimise tracking. ● Tracking beside drainage ditches linked to the Oranstown Stream (approximately 90m west of proposed construction works at the closest point) will be avoided, to avoid damage to the bankside. ● A buffer zone of 10m will be maintained, between storage and working areas and drainage ditches potentially linked to the Oranstown Stream, taking account of the minimum working area required to facilitate the works. ● Oil or fuel stored within the construction site, will be kept in a bunded area, at least 10m from drainage ditches. Vehicle maintenance will not occur within 10m of drainage ditches. All machinery will be in good working order, free from any leakage of fuel, oil or hydraulic fluid ● The time period over which areas of digging are left open will be reduced insofar as is reasonably practicable. ● Re-instatement method statements will be subject to approval by the EnCoW. ● Concrete will be brought to site by covered truck. Wet concrete operations adjacent to watercourses will be avoided. ● The Contractor will ensure that all concrete truck wash watering / cleaning is undertaken offsite where possible and remote from drains and watercourses. ● To reduce the risk of contamination arising as a result of spills or leakages, measures including, but not limited to, the following will be employed. <ul style="list-style-type: none"> – All collected waste will be managed in accordance with the Waste Management Act 1996, and associated Regulations; – Fuels, chemicals, liquid and solid waste will be stored on impermeable surfaces; – Refuelling of plant, equipment and vehicles will be carried out on impermeable surfaces; – All tanks and drums will be bunded in accordance with established best practice guidelines; and – Spill kits will be provided and carried by all crews during underground cable installation works. ● Temporary works will be designed so as not to increase flood risk elsewhere from overland flow, by limiting excavated lengths and providing suitable drainage provision. ● Silt fences (to Hy-Tex Premium specification or similar) and silt traps will be installed prior to commencement of works and will be inspected daily to inform adaptive management as required. The locations of same will be determined by the EnCoW. 	

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> The Emergency Response Plan and environmental control and mitigation measures described in the CEMP will be agreed prior to construction with the Local Authority if requested by means of condition. The temporary construction compound will be secured with hoarding/fencing around the compound perimeter as appropriate. Temporary facilities will be provided at the construction compound including construction phase car parking and welfare facilities and temporary material storage areas as necessary. Any discharges from temporary welfare facilities will be connected to a sealed holding tank to be emptied and disposed of off-site by a licensed contractor to an approved licenced facility. Storage of fuel and refuelling will be undertaken within bunded hardstanding areas. Water will be brought to site via tankers until a connection to the mains water supply is established. 	
9.4	Section 9.7	Construction	Silt Control Measures <ul style="list-style-type: none"> Silt control measures will be used to control silt generated from activities on site, and if dewatering is required, and prevent it gaining access to surface drainage which could convey silt to larger streams and watercourses including Oranstown Stream close to the site. Silt control measures include silt traps which can be located in small drains where flow is small and silt fences where runoff from large areas needs to be controlled. Silt fences must be installed in the working areas and not at the watercourse. Access routes will be delineated such that an appropriate set back distance from watercourses is maintained. Where works are to be undertaken in vicinity of watercourses (including ditches), a 10m setback distance will be delineated by the EnCoW on site. Where distances between the works and watercourse allow, a minimum setback distance of 10m from the watercourse will be maintained. Where the site is constrained, the best available set back distance will be employed taking account of the minimum working area required to facilitate the works. 	Contractor
9.5	Section 9.7	Construction	Silt Fences <ul style="list-style-type: none"> Silt fences will be installed downslope of the area where silt is being generated on disturbed ground. To be effective the silt fence must contain the area where silt is generated and must terminate on high ground (i.e. an elevated area not in the watercourse). 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> Silt fences will be constructed using a permeable filter fabric (e.g. Hy Tex Terrastop Premium silt fence or similar) and not a mesh. The base of the silt fence will be bedded at least 15-30cm into the ground at 2 metre intervals. Once installed the silt fence will be inspected regularly, daily during the proposed works, weekly on completion of the works for at least one month, but more frequently after heavy rains. Any failures in the integrity of the silt fence will be rectified immediately. Two lines of silt curtain / fence will be installed, where considered necessary, by the EnCoW. Any build-up of sediment along the fence boundary will be removed daily. Silt fences will be maintained until vegetation on the disturbed ground has re-established. Re-instatement method statements will be subject to approval by the EnCoW. The silt fencing must be left in place until the works are completed (which includes removal of any temporary ground treatment). Silt fences will not be removed during heavy rainfall. The silt fence will not be pulled from the ground but cutaway at ground level and posts removed. A record of when it was installed, inspected and removed will be maintained. 	
9.6	Section 9.7	Construction	<p>Silt Traps</p> <p>The purpose of the trap is to reduce the level of solids in the slowly flowing water including drainage ditches on the site. The silt trap works by allowing a build-up of water behind it slowing flow and allowing solids to settle out. The following requirements will apply:</p> <ul style="list-style-type: none"> Silt traps will only be placed in drains downstream of working areas where the volume of water flow is expected to be low. Silt traps will be made of terram or similar material, not mesh. The trap will be staked into the banks of the drain / watercourse such that no water can flow around the sides. The material will be bedded into the drain bed/watercourse to prevent water flowing beneath it. The height of the trap will be lower than the bank heights. The upper edge will be fixed to a timber cross piece. This will allow water to overtop the silt trap and not burst through or around it. 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> Inspections will be carried out daily; during the proposed works, weekly on completion of the works for at least one month, and after heavy rains, and monthly thereafter until bare areas have developed new growth. Any build-up of solids will be carefully removed without removing any vegetation growing on the bottom. In sensitive areas a series of silt traps will be placed in the drain. The silt trap will not be pulled from the ground but cutaway at ground level and posts removed. A record of when it was installed, inspected and removed will be maintained. 	
9.7	Section 9.7	Operation and Maintenance	<p>The proposed surface water drainage system will incorporate the following features to reduce the risk of pollution and improve the quality of surface water which will be discharged from the site:</p> <ul style="list-style-type: none"> The silt traps in the manholes will reduce the risk of silt buildup (blockage) in the surface water drains. Emergency shut-off valve chambers located upstream and downstream of the attenuation basin to prevent discharge from the drainage network in an emergency event and during periodic maintenance. The transformer and ASC areas will be bunded and fitted with an in-bund interceptor to prevent any oil entering the drainage system. To prevent the silt-up in the proposed attenuation basin the surface water runoff is managed via source control. The proposed site drainage will have gentle slope that prevents soil erosion via heavy runoff. 	
9.8	Section 9.7	Operation and Maintenance	To prevent risk of blockage, filter drains will be covered using a grate or screen to prevent waste (like leaves, twigs) or debris to enter the drains.	
9.9	Section 9.7	Construction and Operation and Maintenance	Throughout the works, regular visual checks for evidence of turbidity or floating oil in the watercourse adjacent to the proposed works area both upstream and downstream will take place.	Contractor / ESB
Chapter 10 Land, Soil, Geology and Hydrogeology				
10.1	Section 10.7	Construction	<ul style="list-style-type: none"> All works will be undertaken in accordance with the CEMP. Any contaminated soils, sediment or groundwater that is encountered will be managed in accordance with best practice guidelines (Environmental Protection Agency, 2013). Any contamination discovered during the construction will be assessed using a Contaminated Land Risk Assessment (CLRA). Where a significant risk to human health or controlled 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>waters is identified the contamination will be remediated on-site or excavated and disposed of as classified waste in accordance with the Waste Management Act, 1996, as amended, and all associated regulations. Contamination management will comply with all relevant legislation and be undertaken in consultation with the EPA and any other relevant authorities as outlined in the CEMP.</p> <ul style="list-style-type: none"> ● Storage of contaminated material, if encountered on-site, will be avoided where possible. If storage on site is necessary, contaminated material will be strictly segregated into designated bunded areas where contaminants cannot leach into the underlying ground. Contaminated materials will be covered with impermeable sheeting to minimise the generation of leachate. ● Handling and stockpiling of soils will be undertaken in accordance with a Soil Management Plan that incorporates good practice guidance including, but not limited to, the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra 2009, 2009). ● Excavated soil material for reuse will be stored at least 15m from drains and watercourses. ● Refuelling will only occur in designated refuelling areas with sealed drainage systems and spillage control. ● The risk to construction and maintenance workers from dermal contact, inhalation, or ingestion of contaminated soil will be prevented by following standard good practice measures, including use of appropriate PPE and following good practice hygiene measures. ● Machinery will be managed to ensure that the number of trips is limited to the minimum required at each location. ● The proposed generator will be sealed and bunded so will not generate contaminated drainage/runoff. ● The transformers will be placed on bunded concrete plinths with a sealed drainage system to capture any leaks and spills from these units. Water collected in these bunds will be pumped via oil/water separator pumps (e.g. Entexol Bund-Sep or similar) and discharged to the attenuation pond directly (bypassing the filter drain system). ● The attenuation pond will be lined to limit infiltration of any contaminated water that enters the pond. ● An emergency shut-off valve chamber will be installed on all discharge pipes upstream of the attenuation pond and filter drain to allow discharge from the drainage network to be controlled in an emergency. 	

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> A penstock will be installed at the attenuation pond outlet headwall to prevent discharge of flows to the outfall in the event of an emergency event. Protocols for dealing with fires, leaks and chemical spills will be included in the Emergency Incident Response Plan. 	
10.2	Section 10.7	Construction	<p>Monitoring Measures:</p> <p>Routine monitoring of equipment will be carried out to minimise the likelihood of leaks/spills occurring and ensure that any leaks are quickly detected and controlled.</p>	Contractor
Chapter 11 Architecture, Archaeology and Cultural Heritage				
11.1	Section 11.7	Construction	<p>The following mitigation will be implemented during pre-construction Ground Investigation (GI) works.</p> <ul style="list-style-type: none"> Monitoring of Ground Investigation (GI) works will be performed under licence from the NMS. The GI works will take the form of Geobore S soil and rock boreholes, soil and rock boreholes, trial pits, soakaway infiltration tests, and ground profiling geophysics in the form of electrical resistance tomography and seismic refraction. Topsoil will be stripped as part of the work of the trial pits and will encompass individual areas 1 m x 2–3 m in plan. 	GI Contractor
11.2	Section 11.7	Construction	<p>To mitigate the impact of the construction of the proposed substation, the following mitigation strategy will be implemented during the construction phase of the development:</p> <ul style="list-style-type: none"> As part of the programme of advance archaeological works prior to construction of the proposed substation, a combination of advance archaeological geophysical survey and advance archaeological test trenching will be undertaken ahead of construction under license to the National Monuments Service Section of the Department of Housing, Local Government and Heritage by a suitably qualified archaeologist in areas not previously disturbed by services, roads or other modern construction, and where such works are practicably feasible. A detailed methodology will be agreed in advance with the National Monuments Service. During construction, archaeological monitoring will be undertaken on groundworks associated with the proposed cable route and access road where such works are practicably feasible. This will be under license to the National Monuments Service Section of the Department of Housing, Local Government and Heritage by a suitably qualified archaeologist. A detailed methodology will be agreed in advance with the National Monuments Service. The cable trench will be kept to a minimum width. Should archaeological features or deposits be discovered during archaeological testing or monitoring, the extent of such features/deposits will be determined, a GPS location of the site will be established and works at this location will cease. A strategy will be proposed to 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<p>the County Archaeologist and National Monuments Service to preserve the site <i>in situ</i>, where possible. Where preservation <i>in situ</i> cannot be achieved, either in whole or in part, then a programme of full archaeological excavation will be proposed, to ensure the preservation by record of the portion of the site that will be directly impacted upon. This work will be carried out by a suitably qualified archaeologist under license and in accordance with the provisions of the National Monuments Acts 1930-2014. The results of any archaeological test testing, surveys and/or excavation will be submitted in a report to the local authority, the Heritage and Planning Division, Department of Housing, Local Government and Heritage and the National Museum of Ireland.</p> <ul style="list-style-type: none"> • A report on the above archaeological works will be compiled on completion of the works and sent to the local authority and National Monuments Service (Department of Housing, Local Government and Heritage) and the National Museum of Ireland. 	
Chapter 12 The Landscape				
12.1	Section 12.6	Construction	<p>In addition to retaining the existing hedgerows within around the site, it is also proposed to bolster existing perimeter and internal hedgerows with under-planting and inter-planting of whip transplants (i.e. Hedgerow Type 1 - see Figure 12.10 of the PECR in order to ensure dense and consistent screening of the site in perpetuity. This will be undertaken where required to thicken and fill gaps in the existing hedgerow network prior to the construction phase, thus allowing for any growth in the period between a grant of planning permission and construction of the development. Advanced nursery stock in the form of 8-10cm girth trees will be used to fill any noticeable gaps and plant species will be selected to complement the existing broadleaf hedgerow species mix around the site and will be of local provenance. Where not already exceeded by existing vegetation, it is intended to manage hedgerows up to 3-4m in height. This height will be achieved by a combination of allowing lower sections of existing hedgerows to mature, filling obvious gaps with advanced nursery stock and providing an additional line of whip planting to selected hedgerows that require densification. Refer to Appendix 12.2 for Landscape and Ecological Mitigation Plan. It is also proposed to plant a dense woodland thicket around the eastern and northern sides of the site in the directions of the nearest road and residential receptors. This is particularly effective mitigation at VP3 (refer to Figure 12.9 of the PECR), which represents local residents and road users immediately to the north of the site.</p>	Contractor
Chapter 13 Traffic and Transport				
13.1	Section 13.7	Construction	<p>In line with established good practice, a development and location specific construction TMP has been developed for the purposes of this assessment and will be further developed as necessary, in consultation with MCC and the Gardaí, prior to construction commencement. This will include (but will not be limited to) such measures as:</p>	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> Details of wheel washing facilities on site to minimise the effect of dust and debris Details of temporary traffic signage to be installed to warn road and recreational route users to the presence of the works access and the associated likely presence of large or slow-moving construction traffic 	
13.2	Section 13.7	Construction	Specific traffic management requirements and localised arrangements for the delivery of abnormal loads will be identified through the completion of an Abnormal Load Assessment; to be undertaken by the appointed Contractor(s) and agreed with in advance of construction with the appropriate reviewing authorities.	Contractor
13.3	Section 13.7	Construction	<p>The implementation and monitoring of the construction TMP will be the responsibility of the appointed Contractor.</p> <p>The construction TMP, as a 'live document', will be reviewed on a regular basis by the appointed Contractor prior to and during the construction phase of the Proposed Development and will be developed accordingly within the parameters assessed in the PECR. The construction TMP will be subject to change during the Proposed Development's evolution which will confirm the efficacy and implementation of all relevant mitigation measures and commitments identified in the application documentation.</p>	Contractor
Chapter 14 Material Assets and Waste Management				
14.1	Section 14.7	Construction	<p>Built Assets and Utilities</p> <ul style="list-style-type: none"> Works in vicinity of electrical services and water/foul water network will be carried out in consultation with ESB Networks and Uisce Éireann, respectively, to ensure the risk of impacts on existing users is minimised 	Contractor / ESB
14.2	Section 14.7	Construction	<p>The following mitigation measures will be implemented for waste generated during construction works.</p> <ul style="list-style-type: none"> The portable chemical toilets will be provided for the duration of construction works. The wastewater will be collected in a proposed holding tank and all waste material will be removed from site and disposed of to an appropriately licensed facility in accordance with the Waste Management Act, 1996 as amended and associated regulations. Excavated material from ground preparation works will be either reused onsite if suitable or otherwise disposed of offsite at a suitably licenced facility. Any excess spoil material will be removed from site by a dumper or suitable lorry and will be treated if required before being disposed of appropriately in a licensed facility. All waste oil (vehicle fuel), empty oil containers and other hazardous wastes will be disposed of in conjunction with the requirements of the Waste Management Acts 1996, as amended, and associated regulations. 	Contractor

Discipline and Commitment Reference	PECR Section Reference	Phase	Mitigation and Monitoring Measure	Responsibility
			<ul style="list-style-type: none"> ● The appointed Contractor will implement the construction phase RWMP included in the CEMP. The RWMP and the CEMP will remain a 'live' document which will be reviewed regularly and revised as necessary. The RWMP can be provided to the Local Authority on request. ● Waste will be managed in accordance with the Waste Management Hierarchy and <i>Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities</i> (EPA, 2020) and the Waste Management Act 1996, as amended and associated regulations. Further detail on waste management is provided in the RWMP. ● Wastes sent offsite for recovery or disposal will only be conveyed by an authorised waste contractor and transported from the Proposed Development site to an authorised site of recovery/disposal in a manner which will not adversely affect the environment. ● The Contractor will be obliged to aim for an overall recycling rate of 70% of construction and demolition waste, in accordance with EU targets under the Waste Framework Directive (2008/98/EC). ● All employees will be made aware of their obligations under the CEMP. The CEMP will be available for inspection at all reasonable times by the Local Authority. 	

5 Emergency Response Plan

5.1 Introduction

In the unlikely event of an incident, the Environmental Incident Response Plan will ensure that any incident is dealt with effectively, and that the response is timely and appropriate. This plan will be further developed by the appointed Contractor, in line with the mitigation measures detailed in this CEMP, to describe the procedures, lines of authority and processes that will be followed to ensure that all incident response efforts are prompt, efficient and appropriate to the particular incident.

5.2 Key Requirements

During construction, accidents, incidents and emergencies that have an environmental impact may occur. In the event of an emergency, the first response is to locate the source which is giving rise to the environmental impact, where appropriate, and stop continuation of the situation, followed by the containment, control and mitigation of the situation.

For the construction site, the Emergency Response Procedure will be displayed within the site office / construction compound.

A copy of the Material Safety Data Sheets for all the chemicals used on the project site will also be kept at the site office.

The main objectives of the Emergency Response Plan are to:

- Ensure that all means are available to contain the consequences of an accidental spill, fire or release of oil/fuel.
- Ensure that employees are suitably trained to respond to fire and spill.
- Ensure that proper reporting takes place.
- Ensure that proper investigation is undertaken.

All Contractor personnel and sub-contractors will be instructed and rehearsed, as appropriate, in the requirements of the emergency response procedure. Following control of an incident or emergency, an investigation will be conducted and corrective actions will be identified and addressed. The Environmental Manager will verify the close out of environmental related actions and notify the Employer and/or the Employer's Representative of any emergency.

5.3 Emergency Incidents

Emergency incidents are those occurring that give rise to significant negative environmental effects including but not limited to the following.

- Any malfunction of any mitigation measure and/or environmental protection system.
- Any emission that does not comply with requirements of the contract and relevant licenses/permits.
- Any circumstance with potential environmental pollution.
- Any emergency that may give rise to environmental effects (e.g. significant spillages or fire outbreak).

5.4 Emergency Incident Response Plan

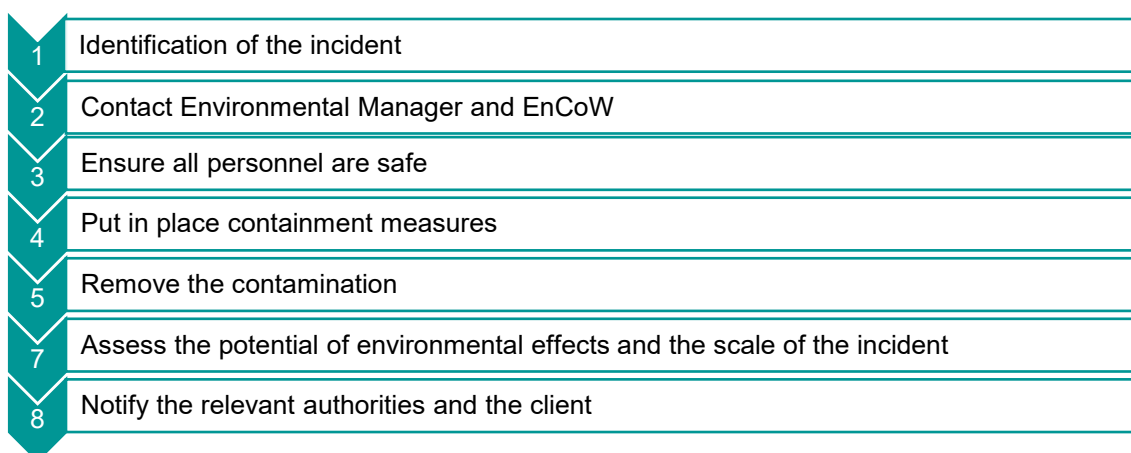
The Contractor will detail emergency incident procedures in the CEMP and develop this Emergency Incident Response Plan prior to the construction phase. The Plan will contain emergency phone numbers and method of notifying local authority, statutory authorities and stakeholder. The Plan will include contact numbers for key personnel. The Contractor will ensure that all staff and personnel on site are familiar with the emergency requirements.

The mitigation measures specified in the PECR will minimise/avoid environmental pollution. However, procedures will be in place in the unlikely event of an incident. The following will be implemented to ensure that the project/site/activity risks are known to all personnel on site:

- Identify all activities related to the project which have the potential to cause an incident.
- Conduct a risk assessment for each activity.
- Ensure effective planning of the works and the required equipment to deliver PECR mitigation requirements.
- Contact details for those contacts detailed in Section 5.5 to be distributed to personnel and displayed on site.
- Training of staff/personnel in relation to response procedures, including drills.

In the unlikely event of an incident, the response will follow the following steps:

Figure 5.1: Incident Response Procedure



In the case of work required in an emergency, which if not completed would be harmful or unsafe to workers, the public and the local environment, Meath County Council will be informed as soon as reasonably practicable of the reasons and likely duration. Examples may include where the ground needs stabilising if unexpected ground conditions are encountered or equipment failure.

All works in the vicinity of the incident will cease until such a time as the Environmental Manager notifies personnel that it is safe to proceed with the works. The EnCoW will be responsible for formulating any corrective actions that are required (e.g. repairs silt fencing in the event of damage from extreme weather) in consultation with the Contractor and relevant stakeholders. Inland Fisheries Ireland (IFI) and the Environmental Protection Agency (EPA) will be notified of any incidents or accidents.

In the event of an emergency incident occurring, the Contractor will investigate and provide a report to include the following, as a minimum.

- A description of the incident, including location, time and date, scale of the incident, nature of the incident and source-pathway and receptor.
- Contributory causes.
- Negative effects.
- Remediation measures implemented to mitigate adverse effects.
- Name of the personnel who reported the incident.
- Any other relevant details.
- Any recommendations to reduce the risk of similar incidents occurring.

The Environmental Manager will keep a log of all environmental incidents on file and these will be made available to the local authority, the EnCoW within the Employer's Representative Team and other agencies, as required, such as the IFI or the Environmental Protection Agency (EPA).

Further, if any sensitive receptor is impacted, the appropriate environmental specialists will be informed and consulted with accordingly. Any response measures will be incorporated into the updated Emergency Incident Response Plan.

5.4.1 Plan Objectives

The objectives of the plan are:

- To ensure the health and safety of all workers on site.
- To minimise environmental effects.
- To devise response procedures.

To establish procedures for an effective response to the incident which minimises effects on the environment and the health and wellbeing of personnel.

5.4.2 Implementation of the Plan

Risks and appropriate responses for incidents will be reviewed and updated to ensure that all risks and response mechanisms are included within the plan. It will identify the risks associated with health and safety and the environment and will evolve throughout the project lifecycle, with inputs from the Contractor/PSCS and Sub-contractors.

5.4.3 Spill Contingency Management Plan

Spillage will be the main cause of contamination through:

- Spillage of hazardous material including fuel oils, waste materials or chemicals.
- Spillage of wastewater sewage and other liquid effluents.
- Spillage of contaminated wash down water with oils, chemicals etc from vehicles, equipment and machinery.

Prior to commencing activities on site, Contractors will develop, implement and maintain a Spill Contingency Management Plan. The Plan will include but not be restricted to the mitigation measures below. The following emergency response actions are proposed, in the event of a spillage:

- If safe, stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident.

- If safe, contain the spill using the spill control materials, track mats, absorbent spills material or other materials provided. Do not spread or flush away the spill.
- Cover or bund off any vulnerable areas, such as drains, watercourses and/or sensitive habitats, where appropriate.
- Clean up as much as possible using the absorbent spills materials.
- Do not hose the spillage down or use any detergents.
- Contain any used absorbent material in weather tight containers bins/bags so that further contamination is limited.
- Notify the Environmental Manager so that used absorbent material will be disposed of using a licensed Waste Contractor.
- The Environmental Manager shall inspect the site as soon as practicable and ensure the necessary measures are in place to prevent further spillage from occurring.
- An accident investigation will be performed in accordance with procedures and the report sent to the Environmental Manager. The Environmental Manager will notify the appropriate stakeholders such as Meath County Council, National Parks and Wildlife Service and/or the EPA.

5.4.4 Extreme Weather Events

The Contractor will consider the impacts of extreme weather events and related conditions during construction. The mitigation and monitoring measures listed in Table 4.1 will be implemented. The CEMP will be updated to consider all measures deemed necessary and appropriate to manage extreme weather events and will specifically cover training of personnel and prevention and monitoring arrangements for staff. As appropriate, method statements will also consider extreme weather events where risks have been identified.

5.5 Emergency Contact List

Table 5.1: Emergency Services and Authorities Contact Details

Emergency Services	Contact Telephone Number
Ambulance / Gardaí	999 or 112
Fire Services	999 or 112
Meath County Council Environment Section	046 9097210.
National Parks and Wildlife Service North Eastern Division	(01) 539 3175 / (01) 539 3230
Environmental Protection Agency (EPA)	01818335599 / 053 9160600
Environmental Protection Agency (Industrial Emission Licence Notifications)	01 268 0100
ESB Emergency	1800372999
Bord Gáis Emergency	1800205050
Irish Water Emergency	1800278278
Health and Safety Authority	0818 289 389
Housing Emergency (Meath County Council)	1800445335
Other Council Services	046 9097000

6 Training and Auditing

6.1 Environmental Induction and Awareness

All site personnel will receive environmental induction and awareness training in conjunction with site safety training. The environmental training and awareness training will ensure that staff are familiar with the principles of the CEMP, the environmental aspects and potential impacts associated with their activities, the controls in place to mitigate said impacts. Prior to working in areas of particular sensitivity, the EnCoW will give a toolbox talk to site personnel. All site personnel will be trained in relation to incident response procedures and drills will be undertaken to ensure timely and effective responses to incidences.

All signed training records will be held on site for future inspection.

6.2 CEMP Reviews and Auditing

Internal and external auditing will facilitate the assessment of the effectiveness of the CEMP and compliance against regulatory and legislative requirements. Audit reports will be produced identifying examples of good practice, opportunities for improvement, non-conformances, and corrective actions taken, as appropriate. Recommendations for follow-up audits will also be provided. The findings of the audits will be reported to the Environmental Manager, the Contractor and the EnCoW.

The EnCoW will bring any changes required to the CEMP to the attention of the Contractor. A report on each change to the CEMP will be appended to the CEMP. The EnCoW will monitor and track any changes in environmental legislation and any changes required will be brought to the attention of the Environmental Manager and the Contractor. Changes to the CEMP may also arise due to changes in activities and measures contained in the CEMP may need to be updated / altered to take account of this.

The EnCoW will carry out regular reviews of the CEMP to ensure that the Contractor is conducting the works in compliance with the PECR and any conditions arising.

The CEMP, environmental inspection reports and audit records will be maintained for inspection.

7 Communications and Complaints

7.1 Communication and Engagement

Communication with the public and other stakeholders will be a two-way mechanism, to ensure awareness of the project and to share information. The Contractor will share important information with the public and other stakeholders.

The communication strategy will include:

- List of stakeholders: the Contractor will provide stakeholders with advance notice of works as appropriate.
- Details of key contacts: Employer, Environmental Manager, EnCoW.
- Road users: the Contractor will ensure that traffic disruption is minimised during construction.
- Method and frequency of communication: this can include personal contact, letter drops, emails, telephone, meetings.
- Details of the consultation register: a record will be maintained of all third-party communication and consultation.

The appointed Contractor will nominate a person to be responsible for the co-ordination of all elements of traffic and transport, a nominated Liaison Officer.

7.2 Environmental Complaints

A formal complaints procedure will be developed and implemented by the Contractor. Signage will be provided at site entrances or on perimeter hoarding locations showing details of whom to contact in the event of a complaint.

The Contractor will:

- Assess what corrective and preventive action is required.
- Carry out further investigation if necessary.
- Provide a response within a reasonable timescale.
- Notify the relevant stakeholder of the proposed corrective and preventive actions to be adopted.
- On completion of the corrective action and following agreement that the complaint has been adequately addressed; the Environmental Manager will close the case and record the date of closure. The complaints register will include details of the preventative measures undertaken to avoid a reoccurrence and will be agreed with the EnCoW.
- The Contractor will additionally communicate the specifics of any environmental complaint to the Employer's Representative.

Appendices

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A. Construction Phase Resource and Waste Management Plan

B. Construction Phase Traffic Management Plan

