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GAVIN & DOHERTY
GEOSOLUTIONS

Illaunbaun Wind Farm - Environmental Impact Assessment Report Outline Construction and Environmental Management Plan

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ACRONYMS

ACP	An Coimisiún Pleanála
AER	Annual Environmental Report
BS	British Standard
C&D	Construction and Demolition
CEMP	Construction Environmental Management Plan
CIRIA	Construction Industry Research and Information Association
CLO	Community Liaison Officer
CMP	Construction Management Plan
CO_2	Carbon Dioxide
CO_2e	Carbon dioxide equivalent
CTMP	Construction Traffic Management Plan
CWMP	Construction Waste Management Plan
DAFM	Department of Agriculture, Food and the Marine
DECLG	Department of the Environment, Community and Local Government
DHLGH	Department of Housing, Local Government and Heritage
DMP	Dust Management Plan
DMP	Dust Management Plan
EIAR	Environmental Impact Assessment Report
EIERP	Environmental Incident and Emergency Response Plan
EMP	Emergency Management Plan
EMP	Environmental Emergency Management Plan
EPA	Environmental Protection Agency (Ireland)
ERP	Emergency Response Plan
ESB	Electricity Supply Board
FMP	Forestry Management Plan
GDG	Gavin & Doherty Geosolutions Ltd.
GGBS	Ground Granulated Blast Furnace Slag
GHG	Greenhouse Gas
GWDTE	Groundwater Dependent Terrestrial Ecosystem
H&S	Health and Safety
H&S	Health and Safety
HAS	Health and Safety Authority
HGV	Heavy Goods Vehicle
HVO	Hydrotreated Vegetable Oil
IAA	Irish Aviation Authority
IAQM	Institute of Air Quality Management
IAS	Invasive Alien Species
IFI	Inland Fisheries Ireland
IFI	Inland Fisheries Ireland
ISMP	Invasive Species Management Plan
LVIA	Landscape and Visual Impact Assessment
MW	Megawatt
MWC	Main Works Contractor
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service

oCEMP	Outline Construction Environmental Management Plan
PAS	Publicly Available Specification (e.g. PAS 2080:2023 – Carbon Management)
PCMP	Project Carbon Management Plan
PIRP	Pollution Incident Response Plan
PIRP	Pollution Incident Response Plan
PPE	Personal Protective Equipment
PRA	Peat Repository Area
PSCS	Project Supervisor Construction Stage
RAMS	Risk Assessments and Method Statements
RWMP	Resource and Waste Management Plan
RWMP	Resource and Waste Management Plan
SEAI	Sustainable Energy Authority of Ireland
SWMP	Surface Water Management Plan
TBC	To Be Confirmed
TII	Transport Infrastructure Ireland
TII	Transport Infrastructure Ireland
WAC	Waste Acceptance Criteria
WFD	Water Framework Directive
WQMP	Water Quality Management Plan
WTG	Wind Turbine Generator

1 INTRODUCTION

This Outline Construction Environmental Management Plan (oCEMP) has been prepared on behalf of JC Montfort Holding SA, the developer of the proposed Illaunbaun Wind Farm (hereafter referred to as "the Development", "Proposed Development", or "the Site"). The Proposed Development is located across the townlands of Tooreen, Slievenalicka, Illaunbaun, Drumbaun & Lackamore (although no infrastructure will be sited within Lackamore townland), County Clare. This oCEMP outlines the environmental management methods to be employed during the construction phase and is submitted for review by JC Montfort Holding SA, statutory consultees, and the planning authority. It sets out the minimum environmental requirements that will be adhered to during construction, addressing construction-related activities and environmental risks. It does not replace appropriate design, maintenance, or operational controls for the completed Development.

Once adopted, the final Construction Environmental Management Plan (CEMP) will serve as a live environmental management and monitoring tool. It will remain available on-site throughout the construction phase and will be updated as needed to reflect changes in regulations, best practice, or findings from inspections and audits. The final CEMP will be prepared by the appointed contractor(s), with due consideration given to the contents of this oCEMP.

1.1 OBJECTIVE AND PURPOSE

The purpose of this outline Construction Environmental Management Plan is to provide adequate detail to the appointed construction contractor(s) who will then implement their own final CEMP for an effective and efficient Site Construction Management System. This system ensures compliance with contractual, regulatory and statutory requirements, environmental mitigation measures, and planning conditions.

The primary objective of this oCEMP is to avoid, minimise, and control adverse environmental impacts associated with all aspects of the construction of the proposed Illaunbaun Wind Farm. It is designed to provide a practical guide for the appointed construction contractor (Main Contractor) to ensure compliance with all relevant planning and environmental requirements.

This oCEMP provides a structured environmental management framework for the construction phase of the project. It outlines the necessary work practices, construction management procedures, management responsibilities, mitigation measures, and monitoring protocols to ensure the proposed development is completed in an environmentally responsible manner. It provides the framework for recording environmental risks and defines the measures required to mitigate and monitor construction effects, including the mitigation measures set out in the associated supporting environmental documents and assessments. It also outlines provisions for auditing and reporting and sets out actions to be taken to resolve any corrective actions arising during construction. The purpose of the oCEMP is to:

- Record environmental risks and identify how they would be managed during the construction period.

- Provide a means of identifying environmental commitments, objectives and targets.
- Provide a means of monitoring and reporting performance against the objectives and targets.
- Provide a framework to ensure that all parties are aware of their responsibilities.
- Establish a checklist of control procedures which can then be integrated into an overall environmental management protocol.
- Describe how construction activities would be undertaken and managed following the obligations of environmental legislation and policy, and the requirements of environmental regulatory authorities.
- Provide detailed environmental mitigation measures for reducing the potential for environmental impacts during pre-construction and construction.
- Highlights that some activities may require consent or licences.
- Act as a link and main document reference for environmental issues between the design and construction stages.
- Ensure the mitigation requirements of the associated environmental assessments are met.

Additionally, the oCEMP identifies the legislative, planning, and policy framework governing the construction of the wind farm and outlines how these requirements will be fulfilled. Key roles and responsibilities for individuals involved in the construction process are detailed, along with necessary training requirements to manage environmental considerations effectively.

The Developer and Appointed Contractor will be fully committed to implementing the management and mitigation measures outlined in this oCEMP.

1.2 DOCUMENT STRUCTURE

This document has been prepared during the planning phase to ensure the integration of appropriate measures as the project progresses. Before construction, this oCEMP will be revised to address all construction issues and ensure that any residual construction stage effects following the design process are mitigated as far as reasonably practicable.

The report is structured as detailed in Table 1-1.

Table 1-1 Report Structure

Section	Title	Description
Section 2	Project Overview	This section describes the Site location and provides a summary of the proposed development.
Section 3	Legal Compliance	Outlines roles, responsibilities, and reporting structures for environmental management.

Section	Title	Description
Section 4	Mitigations and Controls	Details the mitigation measures and control systems to be implemented during construction.
Section 5	Correspondence, Records, and Reporting	Describes the communication procedures between contractors, regulators, and stakeholders.
Section 6	Community Engagement	Summarises engagement with residents and outlines future communication arrangements.
Section 7	Project Environmental Constraints	Identifies key environmental constraints relevant to the construction phase.
Section 8	General Site Requirements	Sets out requirements for site layout, access, materials storage, and good housekeeping.
Section 9	Site Safety	Outlines site safety protocols and integration with environmental responsibilities.
Section 10	Environmental Management Plans	Presents the suite of specific environmental management plans to be developed by the contractor.
Section 11	Management & Monitoring Summaries	Summarises the systems for ongoing environmental monitoring and compliance reporting.
Section 12	Emergency Response plan	Details the procedures for managing environmental incidents and emergencies on site.

1.3 IMPLEMENTATION & CONTROL

The CEMP is a 'live' document that shall be reviewed regularly and modified/ updated as necessary during the project and at any time when new activities are to be undertaken on the Site. Review and update of this document shall be undertaken by the Main Contractor for the Site, in consultation with the project team and any contractors or sub-contractors on site. The CEMP is the mechanism for ensuring that the Proposed Development adopts relevant best-practice management techniques for sustainable construction.

During construction, the CEMP may be revised to take into account any modifications to the design, changes in external factors (for example, regulations or standards), any unforeseen circumstances, and any failings in environmental performance arising from routine inspections.

A report should be generated periodically by the Main Contractor that will highlight compliance with their CEMP and any subsequent plans created to minimise the risk to the environment. In addition, the report should detail any incidents or accidents that have occurred on the Site that have the potential to cause harm to the local receptors, any actions taken, and mitigation put in place, as well as actions to prevent such an incident from occurring again. The report shall be for the project team and any contractors and sub-contractors.

The requirements of the document do not remove or overwrite the legal duties, responsibilities or obligations of the Main Contractor (and subcontractors) and other parties following the contract documents and legislation.

Compliance with the CEMP, the procedures, work practices and controls is mandatory and shall be adhered to by the Contractor, all site personnel, and sub-contractors employed during the construction phase. The document seeks to:

- Provide a basis for achieving and implementing the construction-related mitigation measures identified in the EIAR and NIS; and
- Promote best environmental on-site practices for the duration of the construction phase.

1.4 ENVIRONMENTAL MANAGER

The Main Contractor will appoint an Environmental Manager with responsibility for updating and monitoring compliance with the CEMP throughout the construction period.

1.5 ENVIRONMENTALLY SIGNIFICANT CHANGES

If any environmentally significant changes are encountered when the project build is started, then the CEMP should be changed to reflect the new information. The change should be initiated by following an Environmental Management Plan Change Procedure as depicted in Figure 1-1.

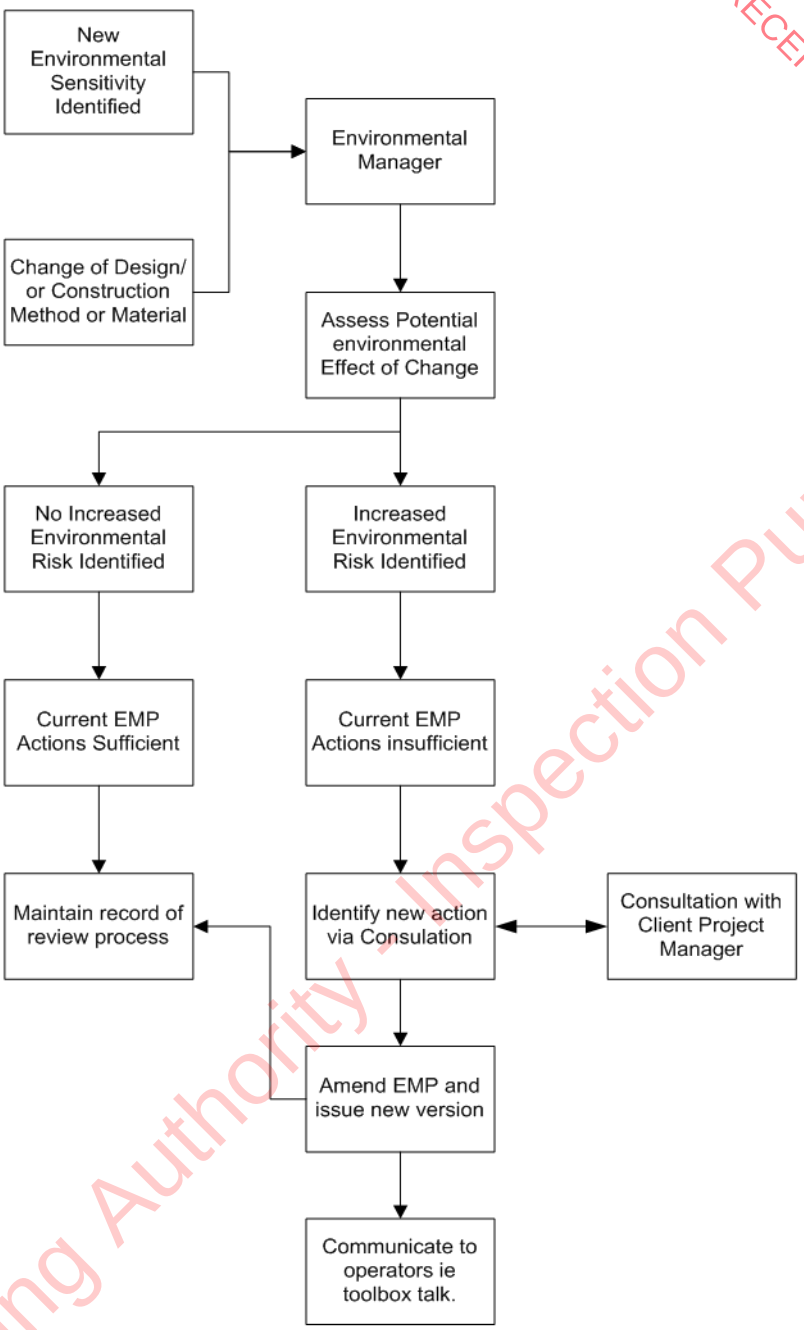


Figure 1-1 Environmental Management Plan Change Procedure

1.6 EMERGENCY MANAGEMENT PLAN

The Main Contractor will be responsible for developing a detailed Emergency Management Plan (EMP) for the proposed works, to cover environmental emergencies, as part of the H&S Plan. Details related to the ERP are outlined in Section 12.0 (Environmental Emergency Response Plan / Procedures) of this oCEMP. Further information relating to the management of spills or leaks and the procedure for responding to an environmental incident is outlined in Section 10.8.

2 PROJECT OVERVIEW

2.1 PROJECT DESCRIPTION

The Illaunbaun Wind Farm project involves the development of a renewable energy facility comprising six wind turbines with a maximum blade tip height of 150 meters. The project includes the construction of supporting infrastructure such as a 38 kV substation with control buildings, welfare facilities, underground cabling, and upgraded site access roads and hardstands. two borrow pits, three-peat repository areas, site drainage, forestry felling, and one temporary construction compound & all associated site infrastructure. These components collectively aim to optimise energy generation while minimising environmental impacts.

The project layout has been carefully designed through a constraints study to ensure that turbines and infrastructure are located in the most suitable areas, reducing environmental impact and leveraging existing access roads and tracks. The wind farm is expected to operate for 30 years and is planned to connect to the national grid via a 38 kV underground cable.

Forestry felling within the Site will follow regulatory guidelines, with replanting on a hectare-for-hectare basis at alternative locations. The project's operational phase will involve ongoing maintenance of turbines, site roads, and substations, with a focus on sustainability and environmental compliance. Decommissioning plans are in place to responsibly remove infrastructure at the end of the project's lifespan.

2.2 WIND FARM

The development for which planning permission is sought comprises a wind energy project and associated infrastructure located across the townlands of Illaunbaun, Drumbaun, Slievenalicka, Lackamore, and Tooreen in County Clare. The proposed development includes the installation of six wind turbines (5 turbines are owned by the developer & 1 turbine is owned by the community) and all associated grid, access, and environmental infrastructure required for construction and operation.

The locations of the proposed infrastructure elements are shown on the Overall Site Layout Drawing (Drawing No. 20136-GDG-PL-XX-DR-C-5011), included in the planning application drawings pack. Additional detailed layout drawings are also provided in planning application drawings to support site planning, environmental protection, and construction logistics.

A summary of the proposed development components is provided in Table 2-1.

Table 2-1: Overview of Proposed Development Infrastructure

Component	Description
Core Wind Farm Elements	
Wind Turbines	Six wind turbines with a maximum blade tip height of 150 metres, including the associated foundations and hardstand areas.

Component	Description
Substation	A 38 kV permanent electrical substation with one control building, welfare facilities, and underground cabling.
Welfare, Storage Facility and Parking	Construction of a staff welfare, storage facility and parking area, including a wastewater holding tank.
Site Access Roads and Hardstands	Upgraded tracks, roads, and new site access roads with hardstand areas.
Associated Development Components	
Cabling	All associated underground electrical and communication cabling connecting turbines to the onsite substation.
Grid Connection	Underground 38 kV cabling (approx. 1.5 m deep) to connect the onsite substation to the national grid
Access Works	Temporary works on public roads along the turbine delivery route (e.g. hedge/tree cutting, relocation of poles/signage).
Construction Compound	One temporary construction compound and additional mobile welfare unit.
Borrow Pits	Two borrow pits to be used as a source of stone material during construction.
Spoil Deposition Areas	Three spoil deposition areas (peat and soil storage/reinstatement).
Surface Water Management	Associated surface water management systems, including drains, check dams, and settlement ponds.
Tree Felling	Tree removal is required to accommodate infrastructure and ensure safety clearances.

3 LEGAL COMPLIANCE

During the construction of the Proposed Development, both the Developer and the Main Contractor will comply with all relevant Irish and EU environmental legislation, guidelines, and best practices, including those related to ecology and biodiversity, air, water, groundwater, noise, and vibration.

The Main Contractor will adhere to the guidance and advice of the ISO 14001:2015 Environmental Management Standard, as well as relevant Construction Industry Research and Information Association (CIRIA) guidelines, including the C811 Environmental Good Practice on Site Guide (Fifth Edition).

The Main Contractor and all subcontractors will strictly follow the CEMP and associated management plans to ensure compliance with relevant legislation and best practices throughout the construction phase.

The CEMP will be reviewed and updated regularly, at least every six months, or more frequently where required to reflect significant changes in site conditions, construction activities, or relevant legislation. Reviews will also be triggered following environmental incidents, audits, or changes to mitigation measures.

4 MITIGATIONS AND CONTROLS

4.1 GENERAL MEASURES

A range of general environmental mitigation measures have been committed to in order to avoid, reduce, or minimise potential impacts. Adherence to this outline CEMP is the primary overarching mitigation measure. In addition, the following construction-stage environmental management plans, which are outlined in Section 10, will be prepared and implemented before the commencement of works:

- Construction Management Plan;
- Construction Traffic Management Plan;
- Waste Management Plan; and
- Construction Stage Health and Safety Plan.

These plans will provide detailed procedures and controls to ensure effective environmental management throughout the construction phase.

To protect material assets, pre-construction consultation will be undertaken, and authorisation achieved for all relevant infrastructure connections with the relevant infrastructure or utility provider, (e.g. Irish Water, and Gas Networks Ireland). The Project Designer and the Main Contractor will identify and incorporate defined water efficiency measures throughout the engineering design and construction phase. These measures will be identified in the updated CEMP and managed by the Main Contractor.

Any work required for material assets on or around the Site will be carried out in conjunction with the relevant provider to ensure minimal disruption to existing users. Any such works will be carried out strictly following the relevant provider's Code of Practice.

4.2 MITIGATION MEASURES ARISING FROM THE EIAR AND NIS

The Environment Impact Assessment Report (EIAR) assesses the likely significant impacts arising from the development. Early collaboration between the engineering design team and the planning and environmental team has allowed for mitigation by design, effectively eliminating or reducing many of the significant impacts to an acceptable level during the preliminary design phase.

This outline CEMP draws on environmental assessments undertaken for comparable wind energy developments and incorporates lessons learned from the implementation of mitigation and monitoring programmes on previous projects. Table 4-1 summarises the potential impacts arising from the project, along with the mitigation measures and monitoring requirements, as identified in the EIAR.

Table 4-1 Construction Phase Mitigation and Monitoring

Potential Impact	Summary of Proposed Mitigations
Chapter 8: Biodiversity & Ornithology	
General	• All plant and machinery will comply with specific noise legislation (Construction Plant and Equipment Permissible Noise Levels (Amendment) Regulations, 1996) and will be turned off when not in use; • No removal of habitats or movement of construction machinery will occur outside of works areas during the construction stage, with the works footprint clearly marked; • Retained trees and hedgerows will be protected in line with current guidance and on the advice of an appointed arboriculturist (NRA, 2006). Protection barriers will be installed around the root protection zones of retained trees and hedgerows. Where essential works are required within root protection zones, ground protection (e.g., cellweb membrane) will be installed (in consultation with a qualified arboriculturist) to minimise the risk of root damage; • Works will avoid the use of artificial lighting in habitat (i.e., rough grassland, hedgerows, woodland) used by potentially sensitive nocturnal species such as owls; • Construction materials will be stored and stockpiled according to the strategies set out within EIAR. All edible and putrescible waste will be stored and disposed of in an appropriate and timely manner; and • Any open excavations left unattended overnight shall be left securely covered to prevent wildlife from becoming trapped. Where covering is not practicable, a safe means of egress, such as a suitably placed ladder, shall be provided.
Aquatic habitats and species	• Light spill onto watercourses will be avoided;

Potential Impact	Summary of Proposed Mitigations
	• Measures will be implemented to maintain a buffer of at least 15m from minor watercourses and land drains (except where they are crossed by tracks or, in the case of minor land drains, where a lesser buffer is applied or where the drain is re-directed); and Excavated soil (e.g., from access road construction) will be reused on-site for berms, landscaping, and along road margins. Berms will be placed away from interceptor drains to avoid flow obstruction or siltation risk. Constructed drainage systems will manage runoff from various areas, reducing potential silt runoff during construction and operation. The Proposed Development will implement a Sustainable Drainage System (SuDS) with on-site flow retention, buffer zones, and silt removal techniques to promote environmentally responsible water management.
Biodiversity	• Habitats will be created in direct proportion to the type and extent of habitat loss resulting from construction. The design and management of this habitat will take into consideration the suitability of this habitat for the Important Ecological Features identified in this EIAR chapter. • The locations of habitat reinstatement and enhancement measures will take into consideration the risk of operational effects (e.g. turbine collisions), with creation of features which could bring sensitive species (e.g., bats) into proximity with wind turbines will be avoided. • Habitat creation and enhancement will focus on delivering suitable foraging habitats for wintering and breeding season habitats for foraging raptors such as hen harrier and kestrel. • Five barn owl nest boxes and five kestrel nest boxes, to be installed in appropriate locations near suitable foraging habitat and away from operational turbines and other potential impact sources. • pre-construction confirmatory surveys will be carried out by the Project Ecologist within the construction boundary and carried out no more than 10-12 months in advance of proposed construction activities. Should activity be recorded at the potential sett or new setts be identified in the interim period during pre-construction surveys, then NWPS will be notified immediately, and derogation

Potential Impact	Summary of Proposed Mitigations
	licenses will be secured in consultation with NPWS to ensure the proposed works cause as limited an effect as possible.
Chapter 9: Land, Soils, Geology and Hydrogeology	
General	• Infrastructure has been strategically positioned to minimise cut and fill requirements throughout the Proposed Development. This will reduce the impact on the geological environment and minimise changes to peat stability.
Wind Turbines	• The sizing of hardstanding areas has been minimised to limit the spatial area affected by works at each WTG location. • WTGs are located close to access tracks to minimise the total track length required and therefore limit damage to the geological environment. • Where possible, WTGs have been strategically positioned to target areas of shallow peat. This will avoid areas of deeper peat cover and areas noted to be unstable, as per EIA.
Turbine Foundations	• All works undertaken at the WTG locations will as a minimum follow the requirements set out in this document.
Access Tracks	• Earthworks will be conducted from designated work corridors to minimise spatial impact. • The design of the proposed access tracks comprises existing Coillte forestry tracks and site entry points, where possible, within the Proposed Development. • The design of the proposed access tracks will use floating tracks, where feasible, to minimise intrusive works on the geological environment. • Where possible, proposed access tracks target areas of shallow peat. This will avoid increasing existing peat instability across the Proposed Development. • Where possible, proposed access tracks have been positioned to maintain a minimum distance of 50m from surface watercourses. • Where possible, proposed access tracks have been positioned to minimise the number of water crossings across the Proposed Development.

Potential Impact	Summary of Proposed Mitigations
	• Proposed access track lengths between WTGs have been minimised to limit damage to the geological environment. • Construction activities should be scheduled outside sensitive breeding or nesting seasons, with wildlife crossings installed where needed and buffer zones established around key habitats to protect wildlife. • Erosion and sediment control measures should include silt fences, sediment traps, and buffer zones near watercourses, along with drainage design to manage runoff and minimise sedimentation of nearby water bodies. • Surface water protection measures should prioritise avoiding stream crossings where possible, using clear-span bridges instead of culverts when necessary, implementing sustainable drainage systems (SuDS) to prevent contamination, and storing all fuel, oil, and chemicals in designated, bunded areas away from water sources. • Restoration and landscape integration should include the proper decommissioning of temporary access tracks, restoring vegetation as needed, and using native species for trackside revegetation to blend with the natural landscape.
Borrow Pit Excavations	• Dust suppression techniques will be used during excavation works. • Temporary pumping of groundwater may be required to facilitate excavation and remove wastewater with high concentrations of suspended soils. • Excavations will not be undertaken during periods of severe weather where there is a risk to either the stability of materials and/or the management, transport and storage of said materials. • Excavation works will be monitored by a qualified geotechnical engineer. • The location and design of Borrow Pits 1 and 2 are shown on Drawings, 20136-GDG-PL-XX-DR-C-5300, 20136-GDG-PL-XX-DR-C-5301.
Slope Stability	• Proposed peat repositories are in areas with a low risk of peat instability, following the Peat Stability Risk Assessment as detailed in the technical appendix of EIAR. • Refer to (Drawings 20136-GDG-PL-XX-DR-C-5302, 20136-GDG-PL-XX-DR-C-5303, 20136-GDG-PL-XX-DR-C-5304) for the location of peat repositories, drainage features, and borrow pits referenced in this mitigation schedule.

Potential Impact	Summary of Proposed Mitigations
	• Peat-related works will be subject to additional detailed design and thoroughly checked by a suitably qualified geotechnical engineer, hydrologist, and/or drainage engineer. • Detailed method statements will be prepared for all elements of the construction phase. • Any risk identified during the construction phase will be minimised by following the principles of avoidance, prevention and protection. • Transportation distances of the excavated peak will be minimised from the point of extraction. For example, initially side cast and then transported to the nearest designated borrow pit or peat storage area. • Excavation works will be monitored by a qualified geotechnical engineer. • Frequent monitoring of slopes will be undertaken during the construction phase, including additional monitoring following periods of intense or prolonged rainfall. Monitoring will be conducted by a qualified geotechnical engineer.
Tree Felling	• Machine combinations (i.e. handheld or mechanical) will be chosen which are most suitable for ground conditions and which will minimise soil disturbance; • Tree felling will only be undertaken in areas of proposed infrastructure that have a low risk of peat instability. Areas of deeper peat will be avoided to minimise risks to slope stability. • Tree felling buffers have been minimised to ensure health and safety concerns are addressed concerning wind-blow during the construction phase. • Where possible, retention of trees will ensure that slope stability is not adversely impacted, and the risk of surface runoff is minimised.
Soil Erosion	• Excavations will be constructed and backfilled as quickly as possible to minimise the risk of soil erosion. • Excavations will be stopped immediately during periods of intense rainfall due to the potential for sediment mobilisation and risk to materials management. • Excavated materials will be stored appropriately in accordance with the measures outlined in Section 8.4 of this document. • Where possible, silt traps and bunding will be used to minimise the mobilisation of suspended sediments in runoff.

Potential Impact	Summary of Proposed Mitigations
	• Except for designated peat storage areas, no material stockpiles will be left on-site after the construction phase.
Soil Compaction	• A designated work corridor will be delineated before the commencement of earthworks. Plant machinery will be required to operate within this boundary to limit the damage to the geological environment. • Where possible, excavations of soils/peat will be conducted from the access tracks to minimise the impacted spatial area during the construction phase.
Contamination Soils	An Outline Resource Waste Management Plan (RWMP) is included in Section 10.4 of this document and measures will be followed to control the storage, transport and disposal of construction waste generated on-site. • Soils will be stored, removed, and disposed of following the relevant waste management legislation. • Classification and assessment of waste materials will be conducted as quickly as possible to ensure minimal exposure time to the receiving environment. • Material which is temporarily stored on-site will be stored following the measures outlined in Sections 8.4 & 10.3 of this document, for example using covers to prevent air-blown transportation and surface run-off. • Concrete wash water handling will be carried out at designated areas and suitably managed following the guidance set out in Sections 10.3 and 10.8 of this document.
Fuel and Waste Liquids	• Potentially contaminating liquid will be stored in suitable containers and/or fully-bunded designated areas. Equipment will be used following the guidance set out in Section 10.8 of this document. • Plant machinery will be confined to allocated areas of the Proposed Development during the construction phase. • Refuelling of plant machinery will be conducted at designated refuelling points. • Plant machinery will be checked regularly for any leakages of fuel and waste liquids. Routine maintenance will be undertaken to ensure risks are minimised. • Emergency spill kits will be made readily available on-site to minimise the impact of any accidental releases, leakages or spillages of potentially contaminating materials.

Potential Impact	Summary of Proposed Mitigations
	• Wastewater will be collected in containerised welfare units at designated points and removed off-site by a permitted waste contractor.
Chapter 10: Hydrology, Water Quality and Flood Risk	
General	• This Outline Construction Environmental Management Plan has been prepared for the proposed development and sets out the minimum construction stage requirements to be put in place by the appointed contractor.
Surface Water Runoff	• Surface water generated on site from rainfall will be prevented from flowing across active works areas or materials storage areas. Rainwater that collects in these areas will, before being discharged, pass through a settling tank or settlement lagoon. • Temporary storage of soil will be carefully managed to prevent any potential negative effects on the receiving hydrological environment. The material will be stored away from any existing drains or flow pathways within the Site. Movement of material will be minimised to reduce degradation of soil structure and generation of dust. Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations. • Weather conditions will be monitored when planning construction activities, to minimise the risk of run-off from the Site and the suitable distance of topsoil piles from drainage ditches/sewerage systems will be maintained. In the event of an extended period of dry weather, stockpiles will be dampened using a water spray. The level of spraying will be sufficient to just dampen the soil to avoid dust blow and avoid excessive runoff that could arise during this process. Site roads will also be subject to similar mitigation to avoid dust blow.
Fine sediment Pollution	Mitigation measures are required to address sediment control during construction and the potential risk of sediments and various pollutants released into the local watercourse. This includes: • Silt fencing, runoff control and measures to prevent contaminants from entering the stormwater by proper storage of hazardous materials and waste management practices; • Planning of works will be conscious of available weather forecasts and avoid working during heavy rain/storm events to minimise the risk of runoff that may be more than the capacity of the runoff

Potential Impact	Summary of Proposed Mitigations
	control measures. If working during precipitation events cannot be avoided, then runoff control measures will be actively monitored during the works to ensure their capacity is not compromised; • Adherence to best practice guidance for pollution prevention and sediment management measures (e.g. use of oil booms, spill kits, and silt fences etc.) will be applied; • The contractor will construct a site compound at a location remote from any drains, at a minimum distance of 10m; • All soil stockpiles will be covered (i.e. with a tarpaulin or vegetated) to minimise the risk of rain/wind erosion. Vegetation will be established as soon as possible on all exposed soils; • In the event of an extended dry period, stockpiles will be dampened using water to minimise the risk of airborne particles entering watercourses; • Excavations will remain open for as little time as possible before the placement of fill to minimise the potential of water ingress into excavations; • Management/Response plans will be implemented to identify the mobilisation of soil particles/pollution and initiate the interception and treatment of pollution/silt run-off; • Silt fencing or other appropriate measures will be put in place downstream of exposed soils or soil stockpiles.
Accidental Spills and Leaks	• An Emergency Plan for the Site will be established by the main contractor before construction work commences. The Emergency Plan will contain contact details for statutory bodies such as the NPWS, Clare County Council and Inland Fisheries Ireland. All site workers will be made aware of the plan and its location in the site offices; • There will be no refuelling of machinery within or near the watercourses located in the study area. Refuelling will take place at designated locations at distances of greater than 30 metres from the watercourse; • No vehicles will be left unattended when refuelling and a spill kit including an oil containment boom and absorbent pads will be on-site at all times; • Any fuel needed to be stored on the Site will be stored appropriately and at a location that is set back from the river and lake. All other construction materials will be stored in this compound. The compound will also house the site offices and portable toilets. This compound will either be located

Potential Impact	Summary of Proposed Mitigations
	on ground that is not prone to flooding or will be surrounded by a protective earth bund to prevent inundation; • All vehicles will be regularly maintained and checked for fuel and oil leaks; • All liquids, solids and powder containers will be clearly labelled and stored appropriately in sealable containers. Storage of fuels and oils will be in the main contractor's compound only; • Spill protection equipment such as spill kits, absorbent mats, oil booms, and sand will be available for use in the event of an accidental spill. These will be disposed of correctly if used and replaced with new ones immediately. Disposal records for used absorbent materials will be retained by the Site Manager; • The contractor will implement measures for the regular inspection of bunds and emptying of rainwater (when uncontaminated). Bunding must have a minimum capacity of 110% of the volume of the largest tank or 25% of the total storage capacity, whichever is greater. Bunding will be impermeable to the substance that is being stored in the tank; • The use of settling lagoons, settling tanks, or equivalent, with outflow control measures will be used for the interception of surface water pumped from an active working area; • The Contractor will clean the equipment before delivery to the Site. The Contractor will avoid using equipment which leaks fuel, hydraulic oil or lubricant. The Contractor will maintain equipment to ensure efficiency and to minimise emissions; • Management/Response plans will be implemented to identify the mobilisation of soil particles/pollution and initiate the interception and treatment of pollution/silt runoff; • Precast concrete elements should be maximised to avoid wet concrete close to water.
Drainage Works	• All drainage works will be supervised by an Environmental Manager, and safe concreting measures during construction will be implemented.
Chapter 11: Air Quality; and Chapter 12: Climate	
Communications	• Develop and implement a stakeholder communications plan that includes community engagement before works commence on site. Community engagement involves explaining the nature and duration of the work to residents and businesses.

Potential Impact	Summary of Proposed Mitigations
	• Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include, as a minimum, the highly recommended measures in this document.
Site Management	• 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 logbook. • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions promptly, and record the measures taken. • Make the complaints log available to the local authority when asked.
Preparing and Maintaining the Site	• Plan site layout so that machinery and dust-causing activities are located away from receptors, as far as possible. • Avoid site runoff of water or mud. • Remove materials that have the potential to produce dust from the Site as soon as possible, unless being re-used on site. If they are being re-used on-site use dust suppression/mitigation measures will be utilised.
Operating Vehicles / Machinery and Sustainable Travel	• 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 30 kph on haul roads and work areas. If long haul routes are required these speeds may be increased, with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate.
Operations	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.

Potential Impact	Summary of Proposed Mitigations
	• 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. • 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	• Avoid bonfires and burning of waste materials.
Measures Specific to Earthworks	• The following measures must be implemented in areas close to the ecologically sensitive areas that have been assessed as having a high risk of impacts. These measures are also recommended for other areas of the site earthworks. • Re-vegetate earthworks and exposed areas/soil to stabilise surfaces as soon as practicable. • Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. • During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser will operate. This is to ensure moisture content is high enough to increase the stability of the soil and, therefore, suppress dust.
Measures Specific to Construction	• Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out. If this is required for a particular process, then ensure that appropriate additional control measures are in place.
Measures Specific to Trackout	• A speed restriction of 20 kph will be applied as an effective dust control measure for on-site vehicles. • Avoid dry sweeping of large areas. • Ensure vehicles entering and leaving sites are covered to prevent the escape of materials during transport. • Install hard surfaced haul routes which are regularly damped down, with fixed or mobile sprinkler systems, or mobile water bowsers, and regularly cleaned.

Potential Impact	Summary of Proposed Mitigations
Monitoring	• Undertake daily on-site and off-site inspections, where receptors (including roads) are nearby, to monitor dust. This should include regular visual dust soiling checks within 100 m of the Site boundary. Cleaning is to be provided if necessary. • Increase the 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 during prolonged dry or windy conditions. • Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
Climate - Potential Impact Embodied carbon associated with materials and construction activities	• Use of low-carbon concrete where feasible (e.g. 50% GGBS replacement for Portland cement). • Prioritisation of low-carbon materials and design choices where technically feasible. • Reuse of materials on site, including reclaimed asphalt and recycled aggregate. • Procurement preference for low-carbon alternatives.
Climate - Fuel-related emissions from construction plant and machinery	• Use of sustainably sourced Hydrotreated Vegetable Oil (HVO) as a 100% fossil fuel replacement. • Avoidance of engine idling. • Regular maintenance and inspection of plant and vehicles.
Climate - Transport-related CO_2 emissions from delivery and haulage	• Sourcing of construction materials locally where possible. • Efficient logistics planning to avoid over-ordering and unnecessary trips.
Climate - Waste generation leading to avoidable carbon impacts	• Appoint competent contractor to carry out regular waste audits. • Maximise opportunities for recovery, reuse, and recycling of materials. • Avoid waste through better materials handling and delivery timing.

Potential Impact	Summary of Proposed Mitigations
Climate - Missed opportunity to influence emissions at the design and procurement stage	• Integration of climate objectives into procurement and contractor selection. • Alignment with Local and National Climate Action Plans.
Climate-related disruption during construction (e.g. heavy rain, storms, temperature extremes, fog)	• Site-specific risk assessments and method statements to manage weather-related events. • Use of certified construction materials with defined operating temperature limits.
Chapter 13: Noise and Vibration	
Construction Noise & Vibration	• No significant construction noise or vibration effects have been identified. No specific mitigation measures are required. However, general guidance for controlling construction noise and vibration through BS 5228 will be followed.
Working times	• Construction activities will be limited to specified working times outlined in any relevant planning permissions. Any deviations will require proper control measures.
Chapter 15: Landscape and Visual Impact	
General	• Temporary visual effects associated with construction activities (e.g. crane use, material storage, compound setup, and turbine assembly) are acknowledged. These short-term impacts will be managed through measures set out in the Construction Environmental Management Plan, specifically Sections 8.4, 10.1 & 10.4. These measures will help reduce the visibility and duration of construction-stage impacts to the extent practicable.
Chapter 16: Archaeological & Cultural Heritage	
Discovery of Archaeological Materials	• Archaeological testing under licence to the National Monuments Service of the Department of Housing, Local Government and Heritage (DHLGH) will be carried out at the following locations: ○ Proposed turbines WTG3, WTG6, part of WTG1 and associated platforms; ○ Proposed borrow pits; ○ Proposed compound; ○ Proposed PRA at WTG6; ○ Sections of access track in greenfield areas.

Potential Impact	Summary of Proposed Mitigations
	• Archaeological monitoring of all earth-moving works will be undertaken at turbine/platform locations T1, T3, T4, and T6 to detect any archaeological materials during ground disturbance.
Earth-moving Works for Access Track Construction	• Archaeological monitoring will be undertaken for new sections of the track, including Access 2 crossing greenfield/former bogland (AH1), to detect any potential archaeological remains.
Disturbance of National Monuments or Archaeological Finds	• If archaeological remains are discovered, work will cease immediately, and the Heritage and Planning Division of the DHLGH and the National Museum of Ireland will be notified. Further development will not proceed until the remains are resolved.
Damage to Archaeological Heritage during Construction	• All mitigation measures will be carried out under license to the National Monuments Service (DHLGH) and in compliance with national guidelines and statutory provisions to protect archaeological, architectural, and cultural heritage.
Chapter 17: Material Assets	
Electrical Infrastructure	• Ongoing consultation with ESB Networks will take place when any works in close proximity to ESB infrastructure is taking place, in addition, all works will comply with any requirement or guidelines that the ESB may have including procedures to ensure safe working practices are implemented when working near ESB infrastructure such as overhead wires is taking place.
Telecommunications	• JC Mont-Fort is committed to working with telecommunications providers to resolve any interference which may potentially occur due to the Proposed Development. • Contractors will be required to adhere to good practice measures, to prevent any impacts to telecommunications from occurring.
Television	• JC Mont-Fort is committed to working with television service providers to resolve any interference which may potentially occur due to the Proposed Development. • Contractors will be required to adhere to good practice measures, to prevent any impacts to television broadcasts from occurring.
Gas	• No mitigation measures are required for gas infrastructure.

Potential Impact	Summary of Proposed Mitigations
Water Supply and Wastewater	• All wastewater during the construction phase will be taken off-site by an authorised waste contractor and brought to an authorised waste facility.
Aviation	• JC Mont-Fort will agree on an acceptable aviation obstacle warning lighting scheme with the Department of Defence and IAA/AirNav Ireland ahead of turbine construction and will supply the coordinates and elevations for built turbines, as is standard for wind farm developments.

Waste Management	• All waste generated on site will be contained in appropriate waste skips at a waste storage area on site. The waste storage area will be kept in an orderly manner, with clearly labelled skips to ensure correct disposal is maintained. The volume of waste is not expected to be large enough to warrant source segregation at the Proposed Development site. Therefore, all waste streams generated on-site will be deposited into a single waste skip.
	• Extensive waste categorisation will be in place to ensure the highest possible quality of recycling of the respective categories and to prevent an accumulation of pollutants in the material cycle - it is anticipated that the following waste types will be segregated:
	  ○ Electrical Waste
	  ○ Plastics
	  ○ Oils
	  ○ Metals
	  ○ Glass
	  ○ Timber
	• To minimise the generation of waste and waste disposed to landfill, wastes will be managed following the waste hierarchy and relevant regulatory controls.
	• Waste will be clearly labelled and segregated on site. Measures will be taken to ensure that wastes cannot blow away.
	• Housekeeping measures will be followed for the storage of materials to ensure that materials are protected as much as possible.
	• All waste materials will be stored in skips or other suitable receptacles in designated areas of the Site.

Potential Impact	Summary of Proposed Mitigations
	• Any hazardous wastes generated (such as chemicals, fuels and oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required). • A waste manager will be appointed by the main contractor(s) to ensure effective management of waste during the construction works. • All staff will be provided with training regarding the waste management procedures. • All waste leaving the Site will be reused, recycled or recovered where possible to avoid material designated for disposal. • All waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licenced facilities. • All waste leaving the Site will be recorded and copies of relevant documentation maintained. As a minimum, the following waste management data will be provided: Quantity of materials and waste removed from the Site by type in volume and weight; Outcome of the materials and waste on and off-site; waste transfer notes; hazardous waste consignment notes.
Chapter 19: Traffic and Transport	
Traffic Management	• Implementation of CTMP, which would identify the programme of works, the agreed routes to the Site and details of a Site Liaison Officer who would have responsibilities for managing traffic and transport impacts and effects. The CTMP would also identify measures to reduce and manage construction staff travel by private car, particularly single occupancy trips. Before construction and once the Contractors have confirmed their suppliers, the CTMP will be updated in consultation with Clare County Council and An Garda Síochána as necessary. Potential measures could include (but not limited to): • Immediately upon commencement, all deliveries, operatives and visitors to the Proposed Development Site would report to the security gate and be required to sign in and out. All Site visitors will undergo a Site induction covering Health and Safety issues at the Contractor's temporary compound and will be required to wear appropriate Personal Protective Equipment (PPE) while onsite. This would be communicated to all early works contractors at their pre-start meeting;

Potential Impact	Summary of Proposed Mitigations
	• The main contractor would develop a logistics plan highlighting the access point for the project, loading bay, pedestrian / vehicular segregation, welfare, storage, security and material handling that would be enforced following full site establishment; • Approved haul routes would be identified to the Proposed Development Site and protocols put in place to ensure that HGVs adhere to these routes; • Before delivery of abnormal loads i.e. turbine components, the Applicant or their representatives will consult with An Garda Síochána and Clare County Council Roads Departments to discuss the requirement for a Garda escort; • Abnormal loads are likely to travel at night and outside the normal construction times as may be required by An Garda Síochána. Residents along the affected route will be notified of the timescale for abnormal load deliveries; • Works on public roads on the turbine delivery road and grid connection will be strictly following "Guidance for the Control and Management of Traffic at Road Works - 2nd Edition 2010" as well as "Traffic Signs Manual 2010-Chapter 8- Temporary Traffic Measures and Signs at Roadworks". • All contractors would be provided with a site induction pack containing information on delivery routes and any restrictions on routes; • Temporary construction site signage would be erected along the identified construction traffic routes to warn people of construction activities and associated construction vehicles; • A construction traffic speed limit (for example, 20 kph) would be imposed through sensitive areas and on the wind farm site; • The construction material 'lay down' areas would allow for a staggered delivery schedule throughout the day, avoiding peak and unsociable hours (i.e. before 6 am and after 10 pm); • An integral part of the progress meetings held with all trade contractors is the delivery schedule pro forma. All contractors would be required to give details of the proposed timing of material deliveries to the Site. At this stage, they would be given a specific area for delivery; • The CTMP and the control measures therein would be included within all trade contractor tender enquiries to ensure early understanding and acceptance/compliance with the rules that would be enforced on this project;

Potential Impact	Summary of Proposed Mitigations
	• Under no circumstances would HGVs be allowed to lay up on surrounding roads. All personnel in the team would be in contact with each other and with Site management, who in turn would have mobile and telephone contact with the subcontractors; • All vehicles accessing the wind farm site shall either have roof-mounted flashing beacons or will use their hazard lights; • Roads would be maintained in a clean and safe condition; • A wheel cleaning facility would be installed on-site during the construction period to reduce mud and debris being deposited onto the local road network; • In addition, any dust-generating activities will be minimised where practical during windy conditions, and drivers will adopt driving practices to minimise the creation of dust. Where conditions exist for dust to become friable, techniques such as damping down on the potentially affected areas will be employed; and • To reduce dust emissions, vehicle containers/loads of crushed stone will be covered during both entrance and egress to the Site.
Chapter 20: Forestry	
Tree Blowover due to Wind	• Clear-felling of some trees earlier than the planned rotation to prevent instability and windthrow.
Forestry Infrastructure Impact	• Maximum use of existing forestry infrastructure to minimise the removal of forestry for access road construction.
Harvesting and Replanting Operations	• All operations must comply with DAFM/Forest Service guidelines, including Forestry and Water Quality Guidelines, Forest Harvesting Guidelines, and others. Experienced operators must conduct operations, and relevant PPE must be worn.
Soil and Water Protection	• Machinery exclusion zones created near water bodies; silt traps to capture sediment; brash mats along extraction routes to preserve soil. Harvesting should occur during dry weather to reduce run-off and sediment mobilisation.
Drainage Disruption	• Drains crossed during timber extraction must be kept clear of residues to avoid drainage issues. Temporary crossing points (e.g. using logs and geotextile membranes) are to be monitored and maintained.

Potential Impact	Summary of Proposed Mitigations
Impact on Local Habitats	• Retention of hedgerows and wind-firm broadleaf trees; deadwood left in situ; careful consideration given to protecting wildlife species and habitats (e.g. exclusion zones for badger setts).
Impact on Archaeological Sites	• Creation of a minimum 20- meter exclusion zone around any listed archaeological monuments; machinery passage and timber stacking must be avoided within this zone. Operators must remain vigilant for undiscovered sites.
Impact on Landscape Character	• Replacement planting must adhere to setback guidelines from residential dwellings, public roads, and important viewpoints, avoiding straight lines and creating natural forest edges to mitigate visual impacts on the landscape.
Risk of Utility Line Interference	• Ensure safe operations near powerlines by following forestry standards (e.g. overhead goalposts). Planting setbacks are to be maintained for replacement planting where overhead powerlines traverse the Site.
Public Safety During Harvesting	• Erect safety and prohibitive signage in advance of operations and keep public roads and rights of way clear of any harvesting debris throughout the process.

4.3 CONDITIONS ON PLANNING AS SPECIFIED BY AN COIMISIÚN PLEANÁLA

Should planning permission be granted, the conditions set out by An Coimisiún Pleanála (ACP) will be incorporated into this section. These conditions will form an integral part of the final Construction Environmental Management Plan (CEMP) and will be addressed through specific management plans, mitigation measures, or contractor obligations, as appropriate.

This section will be updated in full following receipt of the Board's decision.

5 CORRESPONDENCE, RECORDS, AND REPORTING

Effective communication and record keeping are essential for the successful implementation of the CEMP and overall environmental management on site. This section outlines the key protocols that must be followed throughout the construction phase to ensure environmental best practices are adhered to. By establishing clear communication channels and reporting structures the Main contractor can ensure that all parties, including site staff, subcontractors, visitors, and external stakeholders, are informed and engaged in maintaining environmental compliance throughout the project.

5.1 GENERAL REQUIREMENTS & DEFINITIONS

The Main Contractor provides a complete record of all relevant communication and reports associated with all aspects of environmental management and the implementation of this document. The following records will be maintained as a guide:

- Minutes and attendance record of start-up meeting (onsite meeting before the commencement of construction works). Attendance is required by the Developer, Main Contractor, Environmental Manager and all other relevant personnel responsible for environmental management during the project.
- An Environmental Constraints Map, drawn up by the Developer from survey data highlighting likely constraints for which environmental mitigation and awareness are required by the Main Contractor.
- An Environmental Mitigation/Risk Log, including any noted failures in environmental mitigation (e.g. siltation incidents, temporary drainage failures, impacts on sensitive habitats). This log supports continued revisions of the Environmental Mitigation/Risk Map.
- The mitigation/risk log will be discussed and amended at a weekly environmental meeting.
- Communication Plan, including emergency response details and communication of incidents.
- Developer and Main Contractor Audit Reports.
- Record of Toolbox Talks and Training.
- Dust and noise monitoring records.
- Waste Management Records, in keeping with the Site Waste Management Plan.
- Drainage Maintenance Register.
- Water Quality Monitoring Records, documenting the Main Contractor's visual checks of water bodies.
- Excavation Register noting the volumes of materials excavated and stored.

- Geotechnical / Peat Risk Register in conjunction with design engineers.
- Licenses and Consents - copies of all permissions, consents, licenses, and permits, including related correspondence.
- Regulatory Authority visits (e.g. EPA, National Parks and Wildlife Service (NPWS)) observations, and communications.
- Environmental Departure Register, noting where deviations from the CEMP or regarded good practice are required.
- General Correspondence - all other relevant internal and external communication records relating to environmental management issues and the implementation of the CEMP.
- The Main Contractor will convene a weekly environmental meeting in the first instance, and its regularity will be determined thereafter. The frequency will be no longer than fortnightly. The purpose of these meetings is to:
- Review the effectiveness of mitigation and controls as construction progresses in the context of ecological and environmental mitigation.
- Discuss the construction programme for the following week, look ahead and agree on actions.
- Discuss incidents and the closure of incidents (as required) included in the Environmental Mitigation/Risk Log.

5.2 MEETINGS

Following best practices, the Main Contractor should hold Site Progress Meetings during their work.

Issues relating to environmental design, mitigation and implementation in general, and implementation of the CEMP in particular, should be an agenda item at these progress meetings.

5.3 INFORMATION FOR CONTRACTORS AND VISITORS

All contractors and visitors to the Site will be made aware of the environmental policy and the controls applicable to their presence and activities on site including but not limited to:

- Method statements
- Risk assessments
- Site induction and environment briefings
- Toolbox talks

Relevant site layout and location plans / Construction Design Management drawings detailing the location and construction of the Site compound, storage locations and car parking are to be displayed on an information board at the Site entrance. An environmental incident reporting system will also be put in place before work begins.

The Main Contractor should demonstrate how they aim to ensure that all sub-contractors are aware of the project's environmental management. They should show how the selection, control, and

review of the performance of sub-contractors are to be managed. The contractor should also ensure that all sub-contractors understand the external communications strategy and maintain effective methods of communication.

5.4 TRAINING & COMPETENCE

Environmental training will be delivered and assessed throughout the construction period, to ensure the relevant aspects of the CEMP and associated construction plans are communicated to the project team and front-line staff (including relevant sub-contractors).

The Main Contractor shall identify (and record attendance at) any training they propose to carry out related to environmental issues, including making staff aware of issues relating to matters, for example, flooding, ecology, amenity and pollution control. The Main Contractor will ensure that the training is appropriate for the level of work being undertaken by the staff and sub-contractors. The training will be provided as appropriate in the below format:

- Site induction, including relevant environmental issues;
- Daily Pre-Start Meetings;
- Sub-contractor kick-off meetings
- Environmental Toolbox Talks;
- Incident and Near Miss bulletins;
- Environmental posters and site notices;
- Method statement and risk assessment briefings;
- Key project-specific environmental issues briefings; and
- All managers and supervisors will be briefed on the CEMP.

Method Statements will be prepared for specific activities before the works commence and will include environmental protection and mitigation measures and emergency preparedness appropriate to the activity covered.

The Main Contractor will ensure that:

- All staff and sub-contractors receive instruction, information and training appropriate to the role and work they are conducting;
- All staff are aware of the reporting procedures surrounding environmental incidents, and that all such incidents are required to be reported immediately; and
- All staff are aware of the environmental sensitivities of the area surrounding the Proposed Development and how certain works can cause impacts and effects.

5.5 EXTERNAL COMMUNICATION

All complaints or requests for information will be made aware to the Construction Project Manager and will be logged promptly. Careful monitoring of complaints, including recording details of the

location of the affected party, time of the disturbance, and nature, will assist in managing the works to reduce the likelihood of further complaints.

5.5.1 COMPLAINTS MANAGEMENT

The Main Contractor's Environmental Manager is responsible for responding to complaints or queries from other stakeholders and must ensure that:

- All complaints are investigated and dealt with appropriately;
- Any corrective actions required are implemented;
- A record is made of all complaints, along with any response and/or actions taken; and
- The complaints record is periodically reviewed to identify any trends and appropriate corrective actions are taken.
- The following information is recorded for all complaints received:
- Stakeholder name;
- Stakeholder address;
- Stakeholders contact details (if required for follow-up, as appropriate);
- Complaint category type (e.g. noise, vibration, dust, waste, traffic);
- Details of the complaint;
- Timing and duration of nuisance or pollution; and
- Additional information.

When investigating a complaint, the Environmental Manager is expected to confirm if the relevant mitigation measures detailed in this CEMP were implemented and, if not, ensure corrective action is taken.

5.6 ENVIRONMENTAL AUDITS

The Environmental Manager will conduct regular audits of the CEMP, providing feedback to the Project Manager. These audits will ensure that all necessary documentation is current and available in both electronic and hard copy formats as needed. Audits will also cover visual monitoring and complaints records to ensure that full and accurate records are maintained.

To ensure the CEMP remains effective throughout the project, it will be regularly reviewed and updated. A log will be kept detailing any updates and review activities, which will be conducted by the Environmental Manager. Findings from these reviews will be reported to the Project Manager and other relevant staff as required.

The weekly review of the Environmental Mitigation Log will serve as an ongoing audit of the effectiveness of deployed mitigation measures.

In addition to regular reviews, area-specific audits (e.g. compounds, waste management areas, refuelling areas) may be carried out at any time by the Developer but will occur at least once per quarter. All audit findings, including corrective actions and closeouts, will be documented and filed.

The Main Contractor will also maintain a rolling program of environmental audits to ensure compliance with CEMP principles, including auditing their subcontractors.

5.7 RISK ASSESSMENT & METHOD STATEMENTS

The Main Contractor provides Risk Assessments and Method Statements (RAMS) for all works and tasks before these are undertaken. These documents will consider all environmental aspects of the planned works and shall address all committed mitigation measures as a minimum.

5.8 NOTICE BOARDS

The Main Contractor provides and maintains project environmental notice boards, which are positioned to ensure that all operatives can review a notice board daily. As a minimum, this will include one notice board to be placed in each compound.

The environmental notice boards are maintained by the Main Contractor's Site Environmental Representative and shall be updated at least monthly or more frequently as dictated by the outcomes of the weekly environmental meeting. As a minimum, the notice boards contain:

Description of the key environmental risks and intended risk mitigation measures.

Accompanying Environmental Mitigation/Risk Map illustrating the location of key risks, required exclusion zones/buffer zones, and location of emergency response equipment, as required by the CEMP.

Key contact numbers and responsible personnel identified within the Environmental Incident and Emergency Response Plan (EIERP).

5.9 ENVIRONMENTAL RECORDS

The Main Contractor should demonstrate what records are to be kept as part of this environmental management process.

This information should also identify where the documents are to be kept and who will be responsible for maintaining them. This documentation should include training, monitoring, project reviews, minutes of meetings, method statements, procedures, consents/licences etc.

5.10 DISTRIBUTION

Copies of the CEMP and associated construction plans will be retained by the Developer and the appointed Main Contractor.

6 COMMUNITY ENGAGEMENT

6.1 ARRANGEMENTS TO ENGAGE WITH NEIGHBOURING COMMUNITIES

JC Mont-fort Holding SA, as developer of the Illaunbaun Wind Farm, has undertaken an extensive programme of community engagement throughout the design and environmental assessment phases of the project. This engagement is aligned with the Draft Revised Wind Energy Development Guidelines (DHPLG, 2019) and will continue throughout construction and operation.

Consultations undertaken to date include:

- Appointment of a Community Liaison Officer (CLO) in October 2023 to serve as the primary point of contact for residents;
- Two rounds of door-to-door consultation in October 2023 and August 2024 with households within 1.5 km of the proposed turbines;
- Distribution of two project newsletters to provide updates on project design, environmental surveys, transport routes, and the community benefit structure;
- A public consultation event was held on 11 December 2024 at Miltown Malbay Community Centre, providing an opportunity for residents to meet the project team and give feedback;
- A pre-planning meeting with Clare County Council on 19 December 2024 to discuss the emerging project; and
- Ongoing consultation with over 60 statutory and non-statutory consultees during the EIAR scoping process.

During the construction phase, the CLO will continue to manage engagement with the local community. This will include:

- Advance notification of construction activities that may impact local access or amenities (e.g. turbine deliveries, traffic management, or civil works near receptors);
- Coordination of site visits, community updates, or briefings as required; and
- A formal complaints and feedback procedure to document, investigate, and respond to concerns.

All communications will be supported by updates published on the project website (see Section 6.2).

6.2 PROJECT WEBSITE

A dedicated project website has been established and will be maintained by the project team throughout the construction phase. The website serves as a central platform for information dissemination and community engagement. It provides:

- Regular project updates and key milestones;
- Access to non-technical summaries of the Environmental Impact Assessment Report;
- Contact details for the Community Liaison Officer;

- Information on upcoming works, delivery schedules, and mitigation measures;
- A mechanism for logging feedback, concerns, or complaints.

The website will serve as a key engagement tool to ensure transparency and ongoing dialogue with the local community.

The website can be accessed at: https://illaunbaunwindfarm.com/

7 PROJECT ENVIRONMENTAL CONSTRAINTS

7.1 PROJECT DESCRIPTION

The proposed Illaunbaun Wind Farm includes the installation of six Wind Turbine Generators (WTGs), where 5 turbines will be owned by JC Mont-Fort and 1 turbine will be owned by the local community, with a maximum height to blade tip of 150 m, along with associated infrastructure, including an on-site substation, site tracks, crane hardstands, electrical cables, and temporary infrastructure to facilitate the construction works.

A plan and proposed layout of the Site are included in the planning application drawings pack.

7.2 CONTRACTOR ENGAGEMENT

Before work commences, the Developer will carry out surveys to identify specific constraints for inclusion in an Environmental Constraints Map, which will be made available to the Main Contractor.

The Main Contractor will review the environmental constraints to devise a mitigation schedule.

The Main Contractor will adopt and implement the measures outlined throughout this document.

7.3 DESIGN MICRO-SITING

To minimise the environmental impacts during construction, the wind farm planning shall allow limited spatial deviation from the consented design (micro-siting) within defined limits. This provision applies to the repositioning of civil infrastructure (turbines, access tracks, and temporary construction compounds) to optimise site layout and reduce earthworks, thereby reducing habitat loss. Micro-siting limitations are as follows:

- No turbine foundation will be positioned at a higher elevation than that shown on the original approved plans (measured relative to the approved design level). Any variation must be justified on engineering grounds and approved through the agreed change control process.
- Turbine dimensions (tip height, hub height, and rotor diameter) shall remain within the limits specified in the planning consent. Please refer to appended submission drawing 20136-GDG-PL-XX-DR-C-5103.
- No wind farm infrastructure will be moved:
    - More than 50m from the position shown on the original approved plans.
    - Into an area identified as a highly dependent groundwater-dependent terrestrial ecosystem buffer.
    - To a position within 50m of any watercourse or, where it is proposed to be in a location of a lesser distance to the watercourse compared to that shown on the original approved plans.
    - To a position within an area identified as having a gradient constraint, being deep peat (that is, peat with a depth of 1m or greater) or having a peat landslide hazard risk of significant or greater as shown on the original approved plans.

All micro-siting will be subject to prior assessment and approval from the Environmental Manager and Geotechnical Engineer. Furthermore, for micro-siting on Groundwater Dependent Terrestrial Ecosystems and areas of deep peat consultation with the EPA and the relevant local authorities is required.

7.4 MANAGEMENT OF CHANGE

During the construction of the Development, it is reasonable to presume that certain eventualities may partially or fully preclude the implementation of specific standards and processes outlined herein. In these events, the Main Contractor justifies the Developer, outlining the reasons for any departure and detailing a proposed alternative approach that does not compromise environmental protection. The alternative proposals shall only be adopted following consideration and acceptance by the Developer, Environmental Manager and Geotechnical Engineer where relevant.

The Main Contractor maintains an Environmental Departures Register that details the rationale for the change, and the agreed alternative approach, and demonstrates approval from relevant parties, including the Developer and Environmental Manager. It is noted that material changes will require consultation with the Planning Authority and relevant consultees. The Main Contractor includes any additional requirements in the Environmental Departures Register and updates method statements to detail how compliance with the consent shall be maintained.

8 GENERAL SITE REQUIREMENTS

8.1 OBJECTIVE

The construction activities will be carried out in a manner that limits adverse environmental impacts as far as reasonably practicable. The Main Contractor will adhere to the best practice guidelines set out in the Construction Industry Research and Information Association (CIRIA) C811 Environmental Good Practice on Site Guide (Fifth Edition).

Mitigation measures identified in the Environmental Impact Assessment Report (EIAR) as detailed in Section 4 of this document will be implemented wherever significant impacts are anticipated.

Following consent for the Proposed Development, the Main Contractor will be responsible for reviewing and updating these mitigation measures based on consultation responses and final planning conditions.

8.2 HOURS OF OPERATION

The proposed typical working hours shall be:

- 07:00 to 19:00 Monday to Friday; and
- 07:00 to 12:00 on Saturday.

No work will be carried out on Sundays or bank holidays, and the Site will remain secure when not active. In addition, no works, or other activity that could reasonably be expected to annoy residents in the vicinity (including deliveries), will take place on the Site between 22:00 and 06:00.

8.3 TRAFFIC, SITE ACCESS AND PARKING

The works traffic routes; any restrictions and the location of any site access and parking areas shall be detailed in the Main Contractor's Traffic Management Plan and shall be agreed upon with the planning authority before works start on site.

The Main Contractor must ensure sufficient allowance within the Site area for parking and loading.

No parking of any contractor's vehicles or loading and unloading of plant and materials outside the Site boundary, on public roads or other areas will be permitted.

8.4 CONSTRUCTION SITE LAYOUT

The construction site layout has been developed to minimise environmental impacts, support safe access, and ensure efficient delivery of the works. Key infrastructure elements include turbine locations, crane hardstands, the construction compound and welfare facilities, internal access tracks, the substation, peat repositories, and borrow pits.

The general layout is shown in Drawing No. 20136-GDG-PL-XX-DR-C-5011 (Site Overview) and further detailed in Drawings C-5012 to C-5017, all of which are included in the planning application drawing pack. These drawings provide the spatial context for implementing environmental controls and

should be referred to in conjunction with the mitigation measures set out throughout this document.

The contractor shall:

- Maintain designated access routes and turning areas;
- Establish temporary fencing and safety signage around working areas;
- Clearly demarcate no-go zones, including buffers around sensitive habitats, watercourses, and peat repositories;
- Ensure construction compounds are located and managed in accordance with drainage and lighting plans;
- Avoid encroachment beyond permitted working areas and always maintain up-to-date layout drawings on site.

All site layout arrangements will be reviewed periodically and updated as required to reflect construction progress or environmental constraints.

8.5 GOOD HOUSEKEEPING

The Main Contractor will emphasise the importance of good housekeeping during the construction phase. Housekeeping is an important part of good environmental practice, and it helps everyone to maintain a more efficient and safer site. The Site should be tidy, and secure, and have clear access routes that are well signposted. The appearance of a tidy, well-managed site can reduce the likelihood of theft, vandalism or complaints.

- Existing hedges, tree screens and the topography will be utilised to screen construction sites; temporary earth mounding or other temporary screening will also be included, where appropriate, within the confines of land taken for construction sites.
- Perimeter hoardings will be regularly inspected repaired and repainted as necessary, other hoardings will be regularly inspected and repaired.
- All working areas will be kept in clean and tidy condition.
- Wheel washing facilities will be brushed or sprayed clean frequently.
- Adequate toilet facilities will be provided for all site staff.
- Waste generated will be removed at frequent intervals and the Site kept clean and tidy.
- Food waste will be removed frequently.
- Any waste susceptible to spreading by wind or liable to spreading by wind or liable to cause litter will be stored in enclosed containers.
- Any waste inadvertently spread off-site shall be immediately collected by the contractor and disposed of securely.
- Fires/burning will be prohibited at all times.

- All necessary measures will be taken to minimise the risk of fire and the contractor will comply with the requirements of the local fire authority.
- Storage sites, fixed plant and machinery, equipment and temporary buildings will be located to limit adverse environmental effects.
- All external lighting and illumination, associated with the construction process, will follow the guidance issued by the Institution of Lighting Engineers: "Guidance noted for the reduction of light pollution", and the CIE (International Commission on Illumination) report: "Guide on the limitation of the effects of obtrusive light from outdoor lighting installations".

To ensure that construction lighting does not affect residential amenities or breach relevant environmental legislation (e.g. the Environmental Protection Agency Act 1992, as amended), external lighting will be designed and positioned to:

- Provide the minimum light levels necessary for safe working;
- Avoid disturbance to adjoining residents and occupiers;
- Avoid creating dazzle or distraction for drivers using adjacent highways or the railway;
- Seek to minimise light spillage or pollution; and
- Ensure that excess light does not fall on sensitive ecological habitats
- Energy-efficient options for site facilities will seek to be incorporated wherever possible; these may include energy-efficient light bulbs and automatic controls, which will supplement good housekeeping such as switching off equipment when not in use;
- Adequate security will be exercised by the Main Contractor to protect the public and prevent unauthorised entry to or exit from the Site. Site gates will be closed and locked when there is no site activity and site security measures will be implemented;
- Any security cameras will be located and directed so that they do not intrude into occupied residential property; and
- Radios (other than two-way radios used for communication related to the works) and other forms of equipment with loudspeakers will not be used on the Site.

The visual intrusion of construction sites on nearby residents and users of local facilities and amenities will be contained and limited, as far as reasonably practicable.

The Main Contractor will ensure that all working areas are sufficiently and adequately fenced off from members of the public and prevent animals from straying into the working area. The standard of enclosure and screening will be selected to maintain effective site security and achieve appropriate noise attenuation and visual effects.

The Main Contractor is expressly prohibited from displaying or allowing the display of any advertisement, notice, etc including illicit bill or fly posting on the hoardings. The Main Contractor will ensure that all graffiti, fly posting or defacement to the hoardings is removed and made good or obscured within 48 hours of discovery.

An information board will be provided at the work site. It will detail information on the Site programme and the estimated duration of the works, together with the web address and a 24-hour telephone number for use by members of the public who wish to lodge complaints or comments.

Where temporary or permanent possession of a site is taken, and an enclosure has been removed an enclosure will be erected on the new temporary or permanent boundary to maintain the security of the property.

All fencing and hoarding will be removed as soon as reasonably practicable after the completion of the works.

8.6 SITE COMPOUND AND SOIL STORAGE AREAS/BUNDS

The location and dimensions of any site compounds and storage areas shall be agreed upon in writing with the planning authority before works start on the site.

8.7 OTHER ARRANGEMENTS

The following preventative pest control measures will be adopted:

- Prompt treatment of any pest infestation and arrangements for effective preventative pest control;
- Appropriate storage and regular collection of putrescible waste; and
- Pest infestation of construction sites will be notified to the relevant local authority as soon as is practicable.

Steps will be taken, as far as reasonably practicable, to see that the behaviour of personnel on-site does not offend the public.

8.8 CLEARANCE OF SITE ON COMPLETION

The Main Contractor will clear and clean all working areas and accesses as work proceeds and when no longer required for the works.

After the development, all plant, temporary buildings or vehicles not required during subsequent construction works shall be removed from the Site. All land, including highways, footpaths, loading facilities or other land occupied temporarily, shall be made good to the satisfaction of the Developer.

8.9 POPULATION AND HUMAN HEALTH

To mitigate potential temporary community disturbance during construction, the final Construction Management Plan (CMP) and this document, the Construction Environmental Management Plan, will be implemented in full.

- Access to the construction site will be restricted to authorised personnel only. Hoarding and fencing will be erected along boundaries as appropriate.

- The health and safety considerations and hazards present during the construction phase will be managed by the appointed Main Contractor and the 'Project Supervisor Construction Stage' (PSCS)
- The PSCS role will remain in place at the Site from the beginning of work until the project has been completed.
- The Main Contractor will develop a site health and safety management plan to protect personnel working on the Site and other members of the public who may be affected by the construction works.
- The Main Contractor will implement a Construction Traffic Management Plan to manage instances where construction traffic may affect local road users.

9 SITE SAFETY

The Developer will appoint a Main Contractor who will be responsible for maintaining quality management systems aligned with international standards, including ISO 9001 and ISO 45001. This compliance will ensure the Main Contractor has control and knowledge of relevant hazards, both during normal operations and in abnormal situations, with the overall objective of improving performance and preventing accidents or incidents on-site.

Strict security and safety protocols will be enforced throughout the project. The Main Contractor will operate under the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (Construction) Regulations 2013. A Project Supervisor (Construction Stage) will be appointed by the Main Contractor to manage health and safety throughout the works. This includes responsibility for ensuring that all workers receive site inductions covering key elements such as:

- Compliance with the CEMP
- Working hours
- Access arrangements
- Health, safety, and environmental policy and procedures
- Code of conduct within the Site and surrounding environs
- Statutory obligations of individuals on site
- Traffic management
- Site parking
- Public access
- Lighting requirements
- Complaints and disciplinary procedures
- Protection of the water environment
- Protection of wildlife and habitats
- Dust and air quality management
- Noise and vibration management
- Emergency procedures

All personnel and visitors to the Site must have completed the necessary health and safety training, including the Safe Pass or equivalent, and must undergo formal site inductions before commencing any work.

10 ENVIRONMENTAL MANAGEMENT PLANS

A suite of initial Management Plans has been prepared for the construction phase of the project, as presented in the following section. They set out the minimum requirements that must be met concerning the management of the environmental aspects listed. These CEMPs will be finalised as required before the commencement of development and will incorporate the mitigation measures outlined in the documentation submitted with the application for permission and will include any additional requirements according to conditions attached to statutory consents. In addition, regular audits of the CEMP will be undertaken during the construction phase of the works by the Environmental Manager.

A total of 11 Management Plans are detailed within this section as presented in Table 10-1 with a summary provided in Section 10.10.

Table 10-1 Environmental Management Plans

Management Plan	Section
Construction Traffic Management Plan	10.1
Invasive Species Management Plan	10.2
Construction Waste Management Plan	10.3
Resource & Waste Management Plan	10.4
Noise & Vibration Management Plan	10.5
Dust and Odour Management Plan	10.6
Water Quality Management Plan	10.7
Pollution Incident Response Plan	10.8
Project Carbon Management Plan	10.9
Forestry Management Plan	10.10

10.1 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

A detailed Construction Traffic Management Plan (CTMP) shall be prepared by the appointed contractor and submitted to the Planning Authority and An Garda Síochána for agreement before the commencement of works on site.

The key elements of the CTMP will include the following:

- Site Access and Routing
    - Construction traffic will access the Site via the existing local road network, primarily using Ballard Road, the L1074, and Slievenalicka.
    - Turbine deliveries will be facilitated via abnormal load routes, with components likely arriving through either Foynes Port or Galway Harbour, subject to contractor confirmation.
    - All haul routes and access arrangements will be subject to agreement with the relevant authorities and will reflect the findings of the Abnormal Load Assessment (EIAR Appendix A19-01).
- Traffic Restrictions and Control Measures
    - Construction traffic will access the Site via the existing local road network, primarily using Ballard Road, the L1074, and Slievenalicka.
    - Turbine deliveries will be facilitated via abnormal load routes, with components likely arriving through either Foynes Port or Galway Harbour, subject to contractor confirmation.
    - All haul routes and access arrangements will be subject to agreement with the relevant authorities and will reflect the findings of the Abnormal Load Assessment (EIAR Appendix A19-01).

All temporary traffic management measures will comply with:

- Chapter 8 of the Traffic Signs Manual (2019); and
- Guidance for the Control and Management of Traffic at Road Works – Second Edition (Department of Transport, 2010).
- *Transport Infrastructure Ireland Temporary Traffic Management Design Guidance*, latest edition as applicable.

The CTMP will be reviewed regularly and updated as required to reflect construction progress, changes in access arrangements, and any new traffic management requirements. It will form part of the contractor's regular reporting to the Developer's Representative and will be implemented in consultation with the relevant local authority.

10.2 INVASIVE SPECIES MANAGEMENT PLAN

No invasive alien species (IAS) listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 to 2021, or other high-risk non-native species, were identified during baseline site surveys.

As a precaution, the contractor will be required to develop and implement a detailed Invasive Species Management Plan (ISMP) as part of the final CEMP. This plan shall address the following:

- **Legislative Compliance:** Compliance with relevant Irish and EU legislation, including the Wildlife Acts 1976–2021.
- **Survey Verification and Site Monitoring:** Pre-construction verification surveys of working areas to confirm the continued absence of IAS. Ongoing monitoring during site clearance and earthworks.
- **Biosecurity Measures:** Implementation of biosecurity controls to prevent the introduction or spread of IAS, including:
  - Cleaning of vehicles, tools, and equipment entering or exiting the Site;
  - Controls on material imports (e.g. stone, topsoil);
  - Designated wash-down areas.
- **Training and Awareness:** Toolbox talks and site inductions to ensure all personnel are aware of the risks and legal obligations associated with IAS.
- **Contingency Protocols:** Procedures for response and reporting if invasive species are discovered during work. This may include:
  - Establishment of exclusion zones;
  - Engagement of a qualified ecologist or invasive species specialist;
  - Appropriate treatment or licensed removal, depending on the species.
- **Record-Keeping and Reporting:** All IAS-related actions will be documented and included in the contractor's environmental records, with updates provided through regular site reporting.

This plan shall align with current best practice guidance, including TII's *Management of Invasive Alien Plant Species on National Roads* (GE-ENV-01104/01105) and supplementary species specific guidance from Invasive Species Ireland.

The ISMP will be reviewed and updated throughout the construction phase in response to any confirmed findings of invasive species on site or changes in best practice. It will form part of the contractor's ongoing environmental reporting to the Developer's Representative and will be implemented in consultation with the relevant authorities to ensure early detection, control, and prevention of spread.

10.3 CONSTRUCTION WASTE MANAGEMENT PLAN

This Construction Waste Management Plan (CWMP) outlines the approach to managing waste generated during the demolition and construction phases of the development. It provides an assessment of the potential environmental impacts associated with waste generation and sets out measures to ensure that all construction and demolition waste is managed in compliance with best practices, minimising the risk of environmental pollution or ecological damage.

The CWMP will be finalised once development consent is obtained, allowing for the incorporation of any additional requirements imposed by statutory consents. The plan will also consider the specific methods and plant equipment to be used by the appointed contractor for the project.

In alignment with the objectives of the Waste Framework Directive (WFD) (2008/98/EC), this CWMP promotes a proactive approach to managing construction and demolition waste during the project. It emphasises sustainable development, environmental protection, and optimal resource use through the following waste management hierarchy principles: prevention, reduction, reuse, and recycling.

The waste management hierarchy is defined as follows:

- **Prevention**: Measures taken before a substance, material, or product becomes waste, aimed at reducing the quantity of waste generated, minimising the environmental and health impacts of waste, and decreasing the harmful substances in materials and products.
- **Preparing for Reuse**: Operations such as checking, cleaning, or repairing products or components that have become waste to enable them to be reused without any further processing.
- **Recycling**: Reprocessing waste materials into products, materials, or substances for either the original or other purposes. This includes organic material reprocessing but excludes energy recovery or materials used for fuel or backfilling.
- **Other Recovery**: Operations where waste serves a useful purpose by replacing other materials that would otherwise have been used, or waste being prepared for such use in the wider economy, as outlined in Annex II of the WFD.
- **Disposal**: Any operation that is not recovered, even if the reclamation of substances or energy is a secondary consequence. Annex I of the WFD lists the disposal operations.

This waste management hierarchy will be applied wherever feasible during the Illaunbaun Wind Farm project to ensure compliance with regulatory requirements, minimise environmental risks, and apply best environmental practices for waste management on-site.

10.3.1 DEFINITION OF WASTE

Waste is defined under the Waste Framework Directive (European Directive 2006/12/EC, as amended by Directive 2008/98/EC) as "any substance or object the holder discards, intends to discard, or is required to discard." Materials become waste when they are deemed surplus to the needs of a development project and are set to be discarded. Once classified as waste, the substance remains waste until it has been fully recovered and no longer poses a potential risk to the environment or human health. At that point, the material ceases to be considered waste.

This definition applies to materials such as waste used as aggregates or construction material in civil engineering projects, as well as excess topsoil and subsoil that need to be moved off-site. Waste recovery is considered complete when these materials are successfully incorporated into a road, building, or other infrastructure, or, in the case of inert waste, after proper processing according to

relevant quality protocols. All waste must be handled by permitted collectors and delivered to authorised facilities.

Wastes are generally categorised as either inert, non-hazardous, or hazardous. In some cases, laboratory testing of representative samples may be required to properly characterise waste materials, particularly when dealing with potentially hazardous waste. The classification of waste helps determine the appropriate handling, treatment, and disposal routes.

Where material is destined for landfill, a Waste Acceptance Criteria (WAC) test may be required to ensure it meets the necessary standards for disposal, particularly for hazardous and certain non-hazardous wastes.

The final classification of the waste; whether inert, non-hazardous, or hazardous, will determine which treatment or disposal facilities are authorised to accept the waste. Waste must always be handled by permitted waste collectors and processed at authorised facilities in compliance with environmental regulations and the associated permits.

10.3.2 ANTICIPATED WASTE

The proposed works will generate construction waste due to the removal of the existing ground surface and any materials or structures currently present on it.

Waste may also arise from construction works to be undertaken as part of the Project, including general waste from the various construction activities. Detailed estimates of all predicted waste generation will be produced before the commencement of the construction phase. These estimates will indicate the type and the predicted quantities of wastes classified by the EWC Code. The waste generation document will be a live document and updated throughout the project.

10.3.3 MAIN WORKS CONTRACTOR ROLES & RESPONSIBILITIES

A Main Works Contractor (MWC) Environmental Co-ordinator/Waste Manager will be appointed to ensure commitment, operational efficiency, and accountability during the construction and demolition (C&D) phase concerning waste management. The Waste Manager will oversee the implementation of the Resource and Waste Management Plan (RWMP) through the onsite management structure and coordinate with all members of the construction team.

10.3.3.1 RECORD KEEPING

The MWC Environmental Co-ordinator/Waste Manager will maintain records of:

- Waste collection permits, facility permits, waste licences, industrial emission licences, and certificates of registration for all facilities used during the project.
- All waste classification tests are conducted on materials, where applicable.
- Signed Waste Transfer Forms for each movement of waste (empty/full skips).
- A Waste Tracking Register for all hazardous and non-hazardous waste movements off-site.

All waste types and amounts generated will be recorded and reviewed regularly to allow continuous improvement of procedures aimed at reducing waste sent to landfills, increasing recycling

percentages, and minimising overall waste production. Records will be maintained for all waste material that leaves the Site, whether for reuse, recovery, recycling, or disposal. For each movement of waste off-site, a signed waste collection docket will be obtained from the contractor, and a signed waste acceptance docket will be issued for each movement on-site.

10.3.3.2 MONITORING

The MWC Environmental Co-ordinator/Waste Manager will be responsible for conducting regular audits during the construction phase to ensure adherence to the RWMP. These responsibilities include:

- Conducting waste audits to verify compliance with the waste management plan.
- Confirming that all waste facilities used during the project are operating under their licences or permits.
- Ensuring that all non-hazardous materials placed in skips are properly segregated and de-labelled.
- Coordinating with the non-hazardous waste contractor for skip/bin exchanges and acting as a spotter when the collection vehicle is on site.

A mid-project review of all records related to waste generated and transported off-site will be conducted to ensure continuous compliance.

10.3.3.3 STORAGE AND REUSE OF DEMOLITION/EXCAVATION WASTES

The storage and reuse of demolition or excavation wastes on-site will be subject to waste licensing requirements. If such wastes are to be stored temporarily, this activity will require a Waste Management Licence Exemption, with limits on material tonnage. Storage will occur in a secure area monitored by the MWC Environmental Co-ordinator/Waste Manager to ensure compliance with the exemption's limits. In cases where uncontaminated excavated soil and stone are beneficially reused on-site, the MWC may invoke Article 27 of the European Communities (Waste Directive) Regulations 2011, notifying the Environmental Protection Agency (EPA) of the material's by-product status.

10.3.3.4 CORRECTIVE ACTIONS

If any waste movements are not accounted for, the reasons for this will be investigated to identify gaps in the record-keeping system. A review of the waste management methods for each material type will be conducted to ensure that waste minimisation targets are being met.

10.3.3.5 REPORTING

Upon completion of the construction and demolition phase, a final report will be prepared summarising the waste management processes used during the project. The report will detail the total recycling, reuse, and recovery rates achieved, compared to the expected waste quantities identified at the outset of the project.

10.3.3.6 TRAINING

The MWC Environmental Co-ordinator/Waste Manager will have the authority to select a waste management team if necessary. This team will assist with organising, operating, and recording the

waste management system implemented on-site. The Waste Manager will oversee record-keeping, provide feedback, and delegate responsibilities where appropriate. They will also liaise with subcontractors and suppliers to prioritise waste prevention and material salvage.

The Waste Manager will receive training on setting up and maintaining record-keeping systems, performing waste audits, and establishing waste management targets. The Waste Manager will also train staff on waste segregation, storage, and recycling, and will implement the RWMP accordingly.

A waste training program will be developed and delivered to all personnel involved in the project. This will include an initial induction on the RWMP and ongoing toolbox talks covering specific waste management topics, including hazardous waste handling.

10.3.3.7 ENVIRONMENTAL MITIGATION MEASURES

Construction waste will be managed following the requirements set out in this Resource and Waste Management Plan (RWMP), which will be implemented by the appointed Contractor throughout the construction phase. The RWMP outlines how waste will be handled, including options for disposal, reuse both on-site and off-site, and recycling. The Main Contractor will also prioritise materials selection with the aim of "designing out waste" to the greatest extent possible. This approach will include agreements with material suppliers to reduce packaging waste and participate in packaging take-back schemes where applicable.

In addition, the Main Contractor will implement "just-in-time" materials delivery systems to minimise stockpiling of materials, reducing the risk of damage and subsequent waste generation. The goal will be to optimise material usage and reduce unnecessary waste while maintaining efficient construction practices.

The table below summarises the potential impacts and the corresponding mitigation measures that will be implemented as part of the waste management strategy.

Table 10-2: Proposed Waste Management Mitigation Measures

Potential Impact	Summary of Proposed Mitigation
There is potential for materials to be sent to landfill rather than being reused or recycled. Waste generated during the construction phase may include excess materials, packaging, over-ordering, off-cuts, damaged materials, and waste from poor storage practices. Additionally, waste materials from excavations, such as soil, made ground, and existing foundations, may be produced as a result of the design or new construction. Depending on the previous use of the Site, these materials could be contaminated. Fuels, hydraulic oils, and lubricants used during construction are classified as hazardous materials. Contractors working on-site will be	The Developer and their appointed Main Works Contractor (MWC) will ensure that all waste leaving the Site is transported by licensed carriers and disposed of or recovered through licensed operators, following national waste legislation. The Contractor will ensure that all waste management practices follow the European waste hierarchy, prioritising prevention, reuse, recycling, and recovery, with disposal being the last option. Efforts will be made to minimise the oversupply of construction materials, and the correct segregation, storage, handling, and transport of waste will be strictly enforced to avoid adverse effects on human health and prevent litter.

responsible for the collection, control, and disposal of all waste generated by their activities, in line with duty of care obligations.	Monitoring and record-keeping will be maintained to comply with Duty of Care requirements.
There will be fuel stores on site for machinery and construction vehicles along with oils and lubricants. Should any spillages, waste, or surplus liquids be disposed of incorrectly, it could cause serious harm to the surrounding environment.	Construction waste materials will be segregated on-site for recycling into the following categories: • Timber • Metal • Cardboard & paper • Glass • Rubble • General waste Waste gypsum can be recycled; therefore, a skip will be provided for the separate collection of waste plasterboard and collected as necessary. Cardboard packaging will be flattened and placed in a covered skip to prevent it from getting wet before collection by a waste contractor. Plastic will be segregated at the source, kept as clean as possible, and stored in a dedicated skip before collection. The project design will include adequate dedicated space for the segregation and storage of various waste streams during construction. The waste storage compound will be fully enclosed within the development and will provide space for waste segregation and handling activities. All waste materials will be stored in skips or other suitable receptacles in designated areas of the Site. The waste storage area(s) will be assigned, and all construction staff will receive training on the waste management procedures at the start of the project. Adequate security measures will be implemented. A bunded disposal area will be provided for all waste fuels, hydraulic oils, and lubricants.
The use of non-permitted waste contractors or unlicensed facilities could result in improper waste management and environmental pollution.	The Developer and the appointed MWC will ensure that all waste leaving the Site is transported via licensed carriers and disposed of or recovered through licensed operators, in compliance with national waste legislation. Monitoring and record-keeping will be maintained under Duty of Care requirements.

Waste arising from the wash-down facility in the form of sediments from the wheel wash unit settlement tank.	The wash-down facility will be inspected regularly and emptied as per the manufacturer's instructions. Sediment residues will be analysed, and an appropriate disposal route will be selected based on the results. A gully emptier tanker will be used to remove waste and dispose of it at an approved site.
Waste generated from the construction compound, including recyclable materials like paper, cardboard packaging, and canteen waste.	Recyclable waste will be segregated on-site in covered skips for collection by a permitted contractor. Regular housekeeping of the temporary canteen, office, and construction compound will be carried out to maintain proper waste management.
Sewage from temporary site toilets.	Sewage will be emptied and disposed of by an approved contractor at a suitable facility. All temporary W/C facilities will be maintained by a licensed contractor.

10.3.4 REGULATORY FRAMEWORK

The project must adhere to best practices and comply with the following relevant policies, strategies, legislation, and, where applicable, recognised international guidelines if Irish guidelines are unavailable:

National and Regional Policies and Strategies

- A Resource Opportunity; Waste Management Policy in Ireland, Department of the Environment, Community and Local Government (DECLG), 2012
- National Hazardous Waste Management Plan 2021 to 2027, EPA, 2021
- Waste Action Plan for a Circular Economy (DAFM/DECC, 2020)
- Whole-of-Government Circular Economy Strategy 2022–2023

National and European Legislation

- Waste Framework Directive (2008/98/EC)
- Waste Management Act 1996 (as amended)
- Waste Management (Facility Permit and Registration) Regulations, S.I. No. 821 of 2007 (as amended)
- Waste Management (Collection Permit) Regulations, 2008 (S.I. No. 87 of 2008) (as amended)
- Waste Management (Landfill Levy) Regulations, 2011 (S.I. No. 434 of 2011) (as amended 2012, S.I. No. 221 of 2012)
- European Communities (Waste Electrical and Electronic Equipment) Regulations, 2011
- Waste Management (Food Waste) Regulations, 2009 (S.I. No. 508 of 2009)

- Local Government Act, 1994 (and amendments) and Regulations (S.I. No. 8 of 1994)
- Litter Pollution Act, 1997 (S.I. No. 12 of 1997)
- Protection of the Environment Act, 2003 (No. 27 of 2003)
- Industrial Emissions Directive (2010/75/EU)
- European Communities (Waste Directive) Regulations, 2011

This ensures that waste management is in line with both national and European standards, promoting sustainability and environmental protection.

10.4 RESOURCE & WASTE MANAGEMENT PLAN

The appointed contractor shall prepare and implement a Resource and Waste Management Plan (RWMP) following Irish environmental legislation, the waste hierarchy, and guidance from the Environmental Protection Agency (EPA). This plan will form a key part of the final CEMP and will be developed in line with the commitments outlined in the EIAR.

Key principles of the RWMP include:

- **Legislative Framework -** The plan will comply with:
  - Waste Management Act 1996 (as amended)
  - European Communities (Waste Directive) Regulations 2011
  - Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects" (EPA, 2021)
  - Polluter Pays Principle and duty of care obligations
- **Resource Efficiency**
  - Where feasible, materials will be reused or recycled on-site, particularly stone from identified borrow pits, which will reduce the need for imported aggregates.
  - The location and design of Borrow Pits 1 and 2 are shown on Drawings 20136-GDG-PL-XX-DR-C-5300 & 20136-GDG-PL-XX-DR-C-5301, Procurement will prioritise sustainable materials and suppliers with documented environmental credentials.
  - Over-ordering will be avoided through accurate materials take-off and staged deliveries.
- **Waste Segregation and Storage**
  - Waste will be segregated at source (e.g. general construction waste, metals, timber, plastics, packaging).
  - Designated waste storage areas will be established within the Site compound.
  - Waste containers will be covered, clearly labelled, and inspected regularly to prevent wind-blown debris and contamination.
- **Peat and Soil Handling**

  - Excavated peat will be stored only in **designated peat storage areas**, identified based on geotechnical stability and drainage criteria.
  - The layout and drainage design for spoil and peat repositories are shown in Drawings 20136-GDG-PL-XX-DR-C-5302 to C-5304, excavated mineral soil and stone will be reused in construction, such as for road building and backfilling, where suitable.
- **Waste Transport and Disposal**
  - All waste removed from the Site will be handled by authorised waste contractors and transported to licensed facilities.
  - Waste transfer records and weighbridge dockets will be maintained for audit and reporting.
- **Contingency Measures -** Procedures will be in place to address accidental contamination or improper disposal, including:
  - Temporary quarantine of suspect materials
  - Notification of the Environmental Manager
  - Corrective action documentation
- **Monitoring and Reporting**
  - The contractor will maintain a waste log, detailing waste types, volumes, destinations, and disposal methods.
  - Regular inspections and audits will be carried out by the Site Environmental Manager, with records submitted as part of routine environmental reporting.

The RWMP will be regularly reviewed and updated as required to reflect changes in construction methods or site conditions. It shall be implemented by all subcontractors and integrated into the Site induction process to ensure awareness and compliance.

10.5 NOISE & VIBRATION MANAGEMENT PLAN

The operation of plant and machinery and general construction site activities are potential sources of noise that will require management across the Site.

Effective planning of on-site activities will significantly reduce the likelihood of impacts to off-site receptors. Understanding, adopting, communicating and integrating Best Practice Measures to minimise noise and vibration at all times and all locations is the best way to indicate to the local authorities, residents and construction workers that noise and vibration are being managed satisfactorily on site.

To minimise the impact of any noise or vibration generated on-site, the contractor will take measures to mitigate and prevent noise and vibration as far as possible. Subject to planning requirements, these measures may include, but not be limited to, the following.

- Any work that is required to implement the planning permission that is audible within any adjacent noise-sensitive receptor, or its curtilage shall be carried out only between the hours of

07:00 and 19:00 Monday to Friday and 07:00 and 12:00 on Saturday, and at no time on a Sunday, unless otherwise agreed in writing;

- A Plan showing the location of noise-sensitive receptors shall be maintained and displayed within the Site offices, and any works that may give rise to noise or vibration on the Site shall be considered against these sites. If there will be any works that will give rise to prolonged noise or vibration, such as piling, contractors shall notify residents and businesses in advance, identifying the works that will be undertaken, the reason for the works, and the duration of the works;
- Noise-generating activities shall, where possible, be undertaken away from noise-sensitive receptors, and where possible have due regard to wind direction;
- If necessary temporary bunds and noise barriers shall be erected to minimise the impact of noise or sensitive receptors;
- All vehicles used on site will be maintained to minimise noise generation;
- Site speed restrictions will be implemented and enforced;
- All drivers on site will undergo site inductions and toolbox talks during which the impacts of noise generation through driving and vehicle operation shall be addressed, including such aspects as over-revving of engines, speed, gear selection, and idling.

The method, locations, and duration of noise and vibration monitoring will be detailed in the updated CEMP and agreed with Clare County Council's Environment Section prior to the commencement of works on site.

10.6 DUST MANAGEMENT PLAN

Dust emissions from construction activities can pose a nuisance to local residents and, under some conditions, affect human health. The proposed development has been assessed as having a medium risk of dust soiling and a low risk of health impacts during construction. The appointed contractor shall prepare a detailed Dust Management Plan (DMP) as part of the final CEMP, to be implemented throughout the construction phase.

- **Objectives - The DMP will:**
  - Minimise dust emissions at source during construction activities;
  - Prevent dust nuisance at sensitive receptors (e.g. nearby dwellings, roads);
  - Ensure compliance with national and international best practice guidance; and
  - Maintain clear records of inspections, incidents, and response measures.
- **Site Management and Planning**
  - A DMP will be developed by the contractor and appended to the final CEMP;
  - Risk areas and sensitive receptors will be identified and mapped;
  - Site layout will minimise dust-generating activities near receptors;

- Dust-generating incidents and complaints will be logged and investigated; and
- The contractor will monitor Met Éireann forecasts and adjust activity during dry or windy periods.

- **Daily Inspections and Monitoring**
  - Daily visual inspections will be conducted around the site perimeter and dust-generating activities;
  - Inspections will increase during dry spells or during high-risk works (e.g. excavation, reinstatement);
  - Dust deposition monitoring using Bergerhoff gauges will be undertaken at selected receptor locations (see Section 11); and
  - Logs of inspections, complaints, and corrective actions will be maintained and made available to the Planning Authority.
- **General Dust Control Measures**
  - All vehicles and plant will be properly maintained and switch off engines when idle;
  - Haul roads, compounds, and stockpiles will be damped down during dry conditions;
  - Temporary barriers or screens will be installed where needed to limit dust spread;
  - Stockpiles and materials likely to generate dust will be covered or kept moist;
  - No burning of materials will be permitted on-site; and
  - Site speed limits of 20 kph will be enforced (30 kph on long haul routes if applicable).
- **Earthworks and Soil Stabilisation**
  - Earthworks and exposed soils will be re-vegetated or stabilised promptly;
  - Hessian, mulches, or tackifiers will be used if re-vegetation is not immediately possible; and
  - Water bowsers will be used to maintain surface moisture in dry, windy weather.
- **Construction Activities**
  - Aggregates and sand will be stored in bunded areas and kept damp;
  - Water sprays or extraction systems will be used during cutting, grinding, or sawing;
  - Material drop heights will be minimised, and chutes and skips will be enclosed; and
  - Adequate non-potable water supply will be available on-site for dust suppression.
- **Trackout Controls**
  - Hard-surfaced haul roads will be installed and damped regularly;
  - Dry sweeping of large areas will be avoided; and
  - Vehicles leaving the site will be covered to prevent loss of material during transport.

- **Odour Management**
  - Although odour impacts are not expected, temporary cover or containment will be used as required to prevent odour at site boundaries; and
  - Exposed waste materials, if applicable, will be sealed or covered daily.
- **Implementation and Oversight**
  - The contractor's Environmental Manager will oversee DMP implementation;
  - All dust control and monitoring measures will be recorded, reviewed, and updated as required; and
  - Corrective actions will be implemented promptly in the event of non-compliance or complaints.
- **Guidance and Standards** - All measures will follow:
  - Institute of Air Quality Management (IAQM) (2024), Guidance on the Assessment of Dust from Demolition and Construction;
  - CIRIA C811 (2022), Environmental Good Practice on Site Guide;
  - Any relevant planning conditions;
  - Environmental Protection Agency Act 1992 (as amended); and
  - Relevant guidance or requirements from Clare County Council.

The DMP will be reviewed and updated regularly to reflect construction progress, seasonal conditions, and monitoring outcomes. It will form part of the contractor's ongoing environmental reporting to the Developer's Representative and will be audited throughout the construction phase to ensure the effectiveness of dust control measures and compliance with regulatory expectations.

10.7 WATER QUALITY MANAGEMENT PLAN

Potential impacts to the water environment (surface water and groundwater) during the construction period will be managed through a combination of embedded design features, industry best practices, and site-specific control measures. The appointed contractor shall prepare a detailed Water Quality Management Plan (WQMP) as part of the final CEMP, to be implemented throughout the construction phase.

- **Objectives** - The WQMP will:
  - Prevent contamination or sedimentation of nearby watercourses and aquifers;
  - Maintain surface water quality in compliance with the Water Framework Directive;
  - Protect the integrity of peat soils and natural drainage patterns; and
  - Ensure compliance with relevant legislation and environmental commitments.
- **Clean and Dirty Water Separation**

- Clean surface water from upslope areas will be diverted around work areas using interceptor drains and earth berms; and
- Dirty water runoff from construction areas (e.g. roads, foundations, cable trenches, borrow pits) will be managed separately through a controlled drainage network.

- **Drainage and Settlement Measures**
  - Check dams will be installed in drains at intervals based on gradient to reduce flow velocity and promote sedimentation;
  - Three-chamber settlement ponds will be constructed in strategic locations to treat runoff before controlled discharge;
  - Discharges will flow through vegetated buffer zones (minimum 20 m wide) to allow further attenuation and filtration; and
  - The locations of settlement ponds, check dams and drainage controls are shown on layout Drawings C-5400 to C-5410 and peat repository plans C-5302 to C-5304 in planning application drawing pack.
- **Silt and Erosion Control**
  - Silt fences, geotextile barriers, and temporary cover (e.g. straw, sheeting) will be used at spoil heaps, stockpiles, and vulnerable areas;
  - All exposed soils will be re-vegetated or stabilised as soon as practicable; and
  - A soil erosion management strategy will be embedded in daily operations, especially in peat-rich areas.
- **Concrete Washout Management**
  - No batching will take place on-site;
  - Concrete chute washout will be permitted only in a designated, bunded area within the Site compound;
  - Wash water will be collected and neutralised (if necessary) before removal or disposal; and
  - pH levels of runoff from concrete works will be monitored.
- **Weather Response and Monitoring**
  - A rain gauge will be installed on-site and monitored daily;
  - Works in sensitive areas will be suspended during and immediately after significant rainfall events;
  - Pre- and post-rain inspections of drainage infrastructure will be conducted; and
  - Water quality parameters (e.g. turbidity, pH, suspended solids) will be monitored visually and, where required, with instruments or laboratory analysis.
- **Implementation and Oversight**

- The contractor's Site Environmental Manager will oversee implementation;
- Regular inspections of drainage infrastructure, sediment controls, and washout areas will be recorded;
- Non-compliances will be logged and corrective actions implemented promptly; and
- The WQMP will be reviewed and updated in response to changing site conditions or regulatory requirements.

- **Guidance and Standards** - All measures will be implemented following:
  - CIRIA C648: Control of Water Pollution from Linear Construction Projects; and
  - Inland Fisheries Ireland guidelines for the protection of fisheries.

The WQMP will be regularly reviewed and updated to reflect evolving site conditions, rainfall patterns, and drainage performance. It will form part of the contractor's ongoing environmental reporting to the Developer's Representative and will be audited throughout the construction phase to ensure continued compliance with water protection requirements and regulatory commitments.

10.8 POLLUTION INCIDENT RESPONSE PLAN

The appointed contractor shall prepare and implement a Pollution Incident Response Plan (PIRP) as part of the final CEMP. The purpose of the PIRP is to ensure that appropriate procedures, equipment, and personnel are in place to prevent, detect, respond to, and report any pollution incidents that may occur during the construction phase.

This plan shall include (but not be limited to) the following key components:

- **Objectives**
  - Minimise the risk of uncontrolled releases to land, water, or air;
  - Ensure a rapid, effective response to environmental incidents;
  - Protect nearby watercourses, sensitive habitats, and peat soils; and
  - Comply with environmental legislation and planning conditions.
- **Site-Specific Risk Identification** - The PIRP shall include a register of pollution risks based on:
  - The proximity of watercourses and sensitive habitats;
  - The presence of peat soils and potential for mobilisation;
  - Use and storage of fuels, concrete, chemicals, and lubricants; and
  - Activities such as concrete pouring, washout, refuelling, and drilling.
- **Response Protocol** - A clear procedure will be outlined for managing pollution incidents, including:
  - Immediate actions to contain and stop the source of pollution;
  - Use of spill kits, drain covers, and bunding materials;

- Notification of the Site Environmental Manager and emergency services if required;
- Internal and external reporting requirements (including to the EPA, IFI, or Local Authority, where applicable); and
- Completion of an incident report form and root cause analysis.

- **Emergency Equipment -** The contractor will provide and maintain:
  - Spill kits at all high-risk locations (e.g. fuel stores, machinery areas);
  - Portable bunds for mobile refuelling or equipment servicing;
  - Site signage and maps showing locations of spill response equipment and drainage protection points; and
  - Fire extinguishers and first aid kits in key locations.
- **Training and Competence**
  - All site personnel will receive induction training on pollution prevention and emergency response procedures;
  - Designated personnel (e.g. plant operators, foremen) will receive enhanced training in spill response and containment; and
  - Emergency drills will be conducted periodically to assess preparedness and identify improvements.
- **Reporting and Review**
  - All incidents, near misses, and lessons learned will be recorded and reviewed by the Site Environmental Officer; and
  - The PIRP will be reviewed at regular intervals and updated to reflect changes in site layout, materials, or activities.

A site map showing compound layout, fuel storage, and washout areas is included in the planning application drawings and should be referred to in the event of an incident.

The PIRP will be kept on-site and available to all personnel and visiting inspectors. Implementation of the plan will be a condition of all subcontractor appointments and monitored as part of ongoing environmental inspections and audits.

10.9 PROJECT CARBON MANAGEMENT PLAN

The appointed contractor shall prepare and implement a Project Carbon Management Plan (PCMP) as part of the final version of the CEMP. This plan will outline the measures to be adopted during the construction phase to reduce greenhouse gas emissions, improve energy efficiency, and support the project's contribution to national decarbonisation goals.

- **Purpose and Objectives** - The plan will:
  - Identify key sources of carbon emissions during construction;

- Outline mitigation measures to reduce the project's carbon footprint;
- Track performance through monitoring and reporting; and
- Promote a culture of sustainability on site.

- **Key Carbon Sources -** The PCMP shall assess direct and indirect emissions associated with:
  - Transportation of materials and staff to/from the Site;
  - Operation of construction plant and equipment;
  - Import of construction materials (e.g. concrete, geotextiles, reinforcement);
  - Management of excavated peat and soils;
  - On-site energy and water use; and
  - Waste generation and disposal activities.
- **Reduction Measures -** Mitigation strategies to be considered shall include:
  - Use of local borrow pits to minimise haulage distances;
  - Bulk ordering and logistics planning to reduce deliveries;
  - Selection of low-carbon materials (e.g. cement substitutes, recycled aggregates);
  - Use of electric or hybrid plant and vehicles where practical;
  - Anti-idling policies for plant and site vehicles;
  - Optimised site layout to reduce travel distances; and
  - Energy-efficient welfare facilities, including insulation and low-energy lighting.
- **Monitoring and Reporting**
  - A carbon log will be maintained, estimating emissions by source category (transport, plant, materials, waste);
  - The contractor will report key performance indicators (e.g. litres of fuel used, km of HGV travel, tonnes of CO_2e avoided) to the Site Environmental Manager; and
  - Deviations or opportunities for improvement will be flagged and reviewed at monthly site meetings.
- **Alignment with National Targets** - The plan will reference:
  - Ireland's Climate Action Plan 2024;
  - Relevant targets under the National Development Plan; and
  - Industry tools such as the TII Carbon Tool or equivalent.
- **Training and Engagement**
  - All site staff will be made aware of carbon management goals during induction;

- Toolbox talks and posters will be used to encourage behavioural change; and
- Subcontractors will be required to align with the project's carbon reduction measures.

The PCMP will be regularly reviewed and updated in line with site conditions and lessons learned, and form part of the contractor's regular environmental reporting to the Developer's Representative.

10.10 FORESTRY MANAGEMENT PLAN

The appointed contractor will be required to include a detailed Forestry Management Plan (FMP) as part of the final version of the CEMP. The FMP will ensure that all forestry-related activities (including felling, extraction, mitigation, restoration, and compensatory afforestation) are implemented in accordance with Forest Service guidelines, relevant legislation, and site-specific constraints.

- **Objectives** - The FMP will:
  - Ensure forestry felling and replanting activities comply with applicable guidance and licensing;
  - Prevent environmental harm to water, soil, biodiversity, archaeology, and residential amenity;
  - Coordinate construction-phase forestry works with ecological and archaeological safeguards; and
  - Ensure full implementation of compensatory afforestation and replanting obligations.
- **Harvesting and Site Preparation**
  - Works will be carried out in line with Forest Service and DAFM guidance;
  - Pre-works walkover, safety statement, and environmental briefing required for all operators;
  - Exclusion zones (e.g. aquatic, archaeological, hedgerow) will be clearly mapped and marked on site;
  - Silt traps to be installed before works begin and monitored regularly;
  - Temporary bridging to be installed where machinery crosses watercourses; and
  - No machinery or stacking in exclusion zones.
- **Machinery and Brash Management**
  - Brash mats to be placed on all haul routes and replenished when worn;
  - Machinery routes monitored and re-routed if soil rutting occurs;
  - No refuelling or chemical storage within 50 m of aquatic zones; and
  - Spill kits to be present on all machines.
- **Weather Contingency**

- Felling and extraction will be suspended during and after heavy rainfall; and
- Directional felling away from sensitive features will be practiced.

- **Timber Extraction and Stacking**
  - Load sizes will be controlled to prevent damage; and
  - Stacking sites to be ≥50 m from aquatic zones and ≥100 m from dwellings where possible.
- **Temporary Construction Felling**
  - 1.55 ha will be felled for temporary construction and replanted in situ post-construction;
  - Replanting to follow DAFM's Environmental Requirements for Afforestation (2024); and
  - All setback distances to be applied as per latest Forest Service guidance.
- **Compensatory Afforestation**
  - 11.59 ha of forestry to be permanently removed (infrastructure felling);
  - Equivalent area of replacement land (11.59 ha) to be afforested in line with Forestry Act 2014 and Forestry Regulations 2017 (S.I. No. 191 of 2017); and
  - Afforestation plan to be agreed with DAFM.
- **Oversight and Compliance**
  - On-site supervision required throughout harvesting and reforestation;
  - All works to be logged and verified against felling licence conditions;
  - Silt traps, bridging, and fertiliser/herbicide use to be monitored and recorded; and
- **Guidance and Standards** - All measures will be implemented following:
  - Felling and Reforestation Policy (DAFM, 2017)
  - Standards for Felling & Reforestation (DAFM, 2019)
  - Environmental Requirements for Afforestation (DAFM, 2024)
  - Forestry Standards Manual (DAFM, 2024b)

The FMP will be regularly reviewed and updated in response to site conditions, seasonal constraints, and ongoing compliance checks. It will form part of the contractor's routine environmental reporting to the Developer's Representative and will be audited throughout the construction phase to ensure adherence to forestry and environmental standards.

11 MANAGEMENT & MONITORING SUMMARIES

As part of the comprehensive Environmental Management Plan for the project, to aid review ongoing monitoring and mitigation measures have been outlined to ensure compliance with environmental regulations and best practices. These tables summarise the Environmental Management Plans and the associated Monitoring Programmes that will be implemented throughout the construction phase of the project.

Table 11-1 presents the different Environmental Management Plans required, detailing the mitigation measures, monitoring, reporting procedures, and liaison requirements.

Table 11-2 provides an overview of the specific Monitoring Programmes, outlining the elements being monitored, the frequency, locations, parameters measured, and the actions triggered based on the results.

These structured plans and programmes ensure that the project adheres to environmental standards and mitigates any potential impacts on local biodiversity, water quality, and noise levels, as well as other key environmental considerations.

11.1 MONITORING LOCATIONS

Environmental monitoring during the construction phase will focus on air quality (dust), noise, and surface water quality, with the aim of detecting and managing potential impacts on nearby receptors and sensitive environments. The scope of monitoring has been informed by the baseline assessments presented in the EIAR and reflects construction activities most likely to generate emissions or discharges.

- Specific monitoring locations will be selected based on proximity to:
- Sensitive residential or ecological receptors;
- High-intensity construction zones such as the construction compound, borrow pits, and cable corridors; and
- Downstream surface water features that may receive site runoff.

Monitoring locations, frequency, and parameters are summarised in the following tables. These will be finalised by the contractor in the detailed CEMP and submitted to the Planning Authority for agreement prior to commencement of works.

11.1.1 AIR QUALITY AND NOISE MONITORING

Monitoring for dust and noise will consider:

- One location adjacent to the construction compound or main site access;
- One location near the nearest occupied dwelling within 500 m of turbine works;
- One location downwind of major dust-generating activities (e.g. borrow pits or peat repositories); and

- A background location outside the construction zone, if feasible.

These locations will support ongoing assessment of nuisance dust and compliance with relevant noise limits during construction.

A summary of the proposed monitoring requirements, corresponding thresholds and reporting requirements are presented in Table 11-2.

11.1.2 WATER QUALITY MONITORING

Water quality monitoring will focus on surface watercourses and lake bodies potentially affected by construction runoff. Monitoring locations will be selected based on:

- Baseline sampling points used in the EIAR (e.g., WS_A1, WS_B3, WS_C1, WS_L1);
- Watercourses located downgradient of turbines, cable routes, and spoil storage areas;
- Proximity to ecologically sensitive receptors such as Lough Keagh;
- Areas downstream of watercourse crossings or where drainage modifications occur; and
- A background/upgradient control location to benchmark against natural conditions.

These stations will support the detection of construction-related impacts on water quality, including turbidity and sediment loading, and will be reviewed as works progress.

A summary of the proposed monitoring requirements, corresponding thresholds and reporting requirements are presented in Table 11-2.

11.1.3 GROUNDWATER MONITORING

The Illaunbaun site lies within the Milltown Malbay Groundwater Body, which has 'Good' WFD status. The underlying aquifer is classified as Locally Important (Ll) with low permeability and groundwater flow concentrated in the upper 10–15 m of bedrock. While the site exhibits Extreme to X–Extreme groundwater vulnerability due to shallow overburden, no groundwater abstractions or GWDTEs are present within or near the site.

As no baseline groundwater quality data was obtained and no direct construction-related risks to groundwater abstraction points exist, no groundwater monitoring is proposed during construction. However, visual inspections for signs of seepage or ponding will be conducted, particularly around deep excavations (e.g. borrow pits or turbine foundations). If any significant groundwater ingress or unexpected hydrogeological risks are observed, further assessment and mitigation will be implemented under the CEMP framework.

Table 11-1 Summary of Construction Environmental Management Plans

Type of Environmental Management Plan	Ongoing Mitigation Required	Mitigation-Specific Requirements	Monitoring Required	Timing of Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
Construction Traffic Management Plan	Yes	Compliance with An Garda Síochána and Clare County Council Management Strategy	Yes	During Construction	Quarterly Reports	Report submitted to Planning Authority	Yes	Complaints Procedure
Invasive Species Management Plan	Yes	Precautionary measures to prevent importation and spread	Yes	During Construction	Quarterly Reports	Report submitted to Planning Authority	Yes	Containment/Treatment is required if any Invasive Species are found on-site.
Construction Waste Management Plan	Yes	Compliance with the Waste Framework Directive (2008/98/EC)	Yes	During Construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Resource & Waste Management Plan	Yes	Prepared in line with Best Practice Guidelines for Resource & Waste Management Plans	Yes	During Construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Noise & Vibration Management Plan	Yes	Compliance with NRA Guidelines and BS5228:2009+A1:2014	Yes	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Specific noise limits to be met at nearest noise-sensitive receptors, Complaints Procedure
Dust and Odour Management Plan	Yes	Compliance with EPA and BRE Guidelines, Construction of Noise Barriers	Yes	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Water Quality Management Plan	Yes	Compliance with EPA Guidelines, Installation of real-time water quality monitoring system	Yes	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure

Pollution Incident Response Plan	Yes	Adherence to guidelines for rapid and efficient response to minimise environmental impact	Yes	During construction	Detailed record of all pollution events and responses, costs involved and environmental impacts	Report submitted to Planning Authority and EPA	Yes	Specific training and debriefing post-pollution events to establish causes of events and lessons learned.
Project Carbon Management Plan	Yes	Aligned with the principles of PAS2080:2023	Yes	During construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority	Yes	Close liaison is required with the Contractor

Table 11-2 Summary of Construction Environmental Monitoring Programmes

Monitoring Programme	Monitoring Element	Frequency	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
WATER QUALITY	Surface Water Monitoring	Baseline prior to construction; fortnightly or event-based during works	4–6 locations selected from EIAR points (e.g. WS_A1, WS_C1, WS_L1), representing upstream/downstream watercourses and lakes: TBC	Turbidity, pH, Temperature, Dissolved Oxygen, Conductivity, Suspended Solids, Nutrients (Ammonia, Nitrate, Nitrite, Phosphorus), COD, BOD, Iron, Chloride, Alkalinity	Contractor / Environmental Manager	Access and weather-dependent	Thresholds to be agreed with Planning Authority and/or EPA	Environmental Manager	Monthly summary reports; annual summary in AER
ATMOSPHERIC	Dust Deposition Monitoring	Monthly (continuous jars deployed)	4 locations: TBC	Dust deposition (mg/m²/day) using Bergerhoff gauges	Contractor / Environmental Manager	N/A	350 mg/m²/day (EPA Guidance)	Environmental Manager	Monthly Site Report, Annual AER
ATMOSPHERIC	Construction Noise Monitoring	Weekly or continuous logging	4 locations: TBC	LAeq, LAMax, L90 (BS 5228-1:2009+A1:2014)	Contractor / Environmental Manager	N/A	Site-specific - max 65 dB daytime	Environmental Manager	Weekly Site Report, Annual AER

12 EMERGENCY RESPONSE PLAN

12.1 HAZARD IDENTIFICATION

To establish the type of potential emergencies that may occur, the hazards outlined in Table 12-1 have been identified as being potential situations that may require an emergency response when they occur.

Table 12-1 Potential Hazards Identified

Hazard Type	Emergency Incident
Plant / Machinery / Tools Causing Damage	Accident resulting in injury, power failure, or loss of critical infrastructure.
Spillages / Leaks	Accidental spills or leaks leading to significant environmental contamination
Flooding	Accident leading to injury or damage to site infrastructure
Severe Weather	Extreme weather events causing injury, site disruption, or damage to infrastructure
Fire / Explosion	Fire or explosion resulting in injury, damage to site infrastructure, or environmental harm
Turbine Collapse	Structural failure of a turbine causing injury or damage to site infrastructure
Peat Stability	Excessive movement of peat or peat slide leading to accidents, injury, or damage to site infrastructure
Landslide	Landslide resulting in injury or significant damage to site infrastructure
On-site / Construction Traffic	Traffic accidents involving plant, machinery, or vehicles, leading to injury or damage to infrastructure
Wind Turbine Rotational Failure	Mechanical failure of turbine rotation causing injury or damage to site infrastructure

12.2 ENVIRONMENTAL EMERGENCY RESPONSE PROCEDURES

Every effort shall be made to prevent environmental emergencies and incidents during the construction and operational phases of the project.

The Contractor is responsible for developing a comprehensive Environmental Emergency Management Plan (EMP) as part of the Health and Safety (H&S) Plan for the proposed construction works. This EMP will outline procedures to address environmental emergencies such as fires, spillages, and structural collapses. The plan will specify notification protocols and response actions.

In the event of an environmental emergency:

- The Environmental Manager and Project Manager will be notified immediately to assess the scale of the incident and determine if emergency services are required.
- All works in the affected area will cease, and contact will be maintained with the emergency services to guide them to the scene as needed.
- If necessary, the Environmental Manager will notify the relevant regulatory authority, depending on the nature of the incident. Details of the incident will be documented, including its cause, extent, actions taken, and any remedial measures implemented.
- A record of all environmental incidents will be maintained by the Environmental Manager and made available to relevant authorities upon request.
- The Environmental Manager will also outline corrective actions and guide the Contractor and the Developer as appropriate.

The EMP must include:

- Contact names and telephone numbers for relevant local authorities (including all sections/departments), emergency services (ambulance, fire brigade, An Garda Síochána), and the Health and Safety Authority (HSA).
- Reporting requirements for environmental emergencies to local authorities and other stakeholders, such as Inland Fisheries Ireland (IFI), the National Parks and Wildlife Service (NPWS), or the Environmental Protection Agency (EPA).

12.2.1 SITE EVACUATION AND FIRE DRILLS

A site evacuation/fire drill procedure will be developed to provide the basis for carrying out the immediate evacuation of all site personnel in the event of an emergency. At induction, all personnel will be made aware of the evacuation procedure. The Fire Services Acts of 1981 and 2003 require the holding of fire safety evacuation drills at specific intervals and maintaining records of such drills. The details of this procedure will be finalised in the Contractor's CEMP at the construction stage and will include:

- Details regarding the notification of emergencies to all those on-site including the use of a siren/horn to notify all personnel;
- Details of assembly point(s) and signage;
- Details of the roll call procedure to account for all personnel on site;
- Communication process between the Site Security Officer and the Site Manager during the procedure (i.e. notification of roll count etc.); and
- Course of action to be undertaken by the Site Manager.

12.2.2 SPILL RESPONSE AND CONTROL

A detailed spill response and control procedure will be developed and finalised in the Contractor's CEMP at the construction stage, outlining the steps that will be followed in the event of an oil/fuel spill occurring, including:

- Identification and blocking of the source of the spill;
- Alerting personnel in the vicinity of the spill and any possible dangers;
- Elimination of any potential ignition sources in the vicinity of the spill;
- Spill containment approach and spill control materials;
- Covering or bunding off any vulnerable areas where appropriate (i.e. drains, streams, sensitive habitats);
- Clean up using the spill control materials;
- Containment and disposal of used spill control materials;
- Communication with the Environmental Manager: providing relevant information on the location, type and extent of the spill so that they can take appropriate action;
- Environmental Manager actions include inspection of the Site, making certain necessary measures are in place to manage the spill and prevent further spillage; and
- Environmental Manager notification to the appropriate regulatory body, if necessary.

12.2.3 EXCESSIVE PEAT MOVEMENT

The predominant land use/activities on the Site of the proposed wind farm are commercial forestry, with some areas of open peatland (grazed at a low intensity). However, a detailed procedure will be developed and finalised within the Contractor's CEMP at the construction stage outlining the steps to be followed in the event of excessive or continuing peat movement being recorded or identified, including details on suspension of construction activities within the affected area, increasing monitoring activity at the identified location; limited construction activity beginning again only once there has been a cessation of movement and a geotechnical risk assessment having been undertaken by a geotechnical engineer.

12.2.4 PEAT SLIDE

A detailed procedure will be developed and finalised within the Contractor's CEMP at the construction stage outlining the steps to be followed in the event of the onset of or detachment of peat on site, which will include details regarding, alert of peat slide, cessation of construction, diversion of resources, mitigation procedures, actions to prevent a peat slide reaching watercourses via on-land prevention measures (e.g. installation of check barrages), watercourse check barrages, stabilisation by rock infill where applicable/required. The procedure will also detail assessment requirements to be undertaken by the geotechnical engineer and stabilisation procedures implemented, as well as monitoring, as appropriate, until movements have stopped.

12.2.5 INCIDENTS / COMPLAINTS

All safety or environmental incidents associated with the project will be reported and investigated in line with the ERP. Typically, the following procedures will be followed in the event of an incident:

- Works will stop immediately where safe to do so;
- The Environmental Manager will be contacted;
- The size of the incident will be assessed and determined if it can be controlled by site staff or if emergency services are required to attend;
- The appropriate enforcing authority will be contacted;
- The Environmental Manager will investigate after the incident;
- The findings will be sent to the appropriate authority; and
- An action plan will be prepared to set out any modifications to working practices required to prevent a recurrence.

This section sets out a procedure to manage and resolve any complaints received from members of the public during the construction phase of the proposed project. The following measures will be adopted and refined, as necessary, taking account of any relevant planning conditions.

The following measures will be implemented to deal with complaints, and the Contractor's CEMP will contain more specific details concerning phone numbers to contact:

- Display a notice board at the Site entrance so that the public knows whom to contact if they have a complaint or comment; and
- Personnel on-site, including sub-contractors, are required to perform their duties following this CEMP, and in such a way as to minimise the risk of complaints from third parties;
- All complaints received regarding the construction works will be recorded and categorised (e.g. noise, property damage, traffic, dust, etc.) within a central Site Complaints Log. This complaints log will include the following key details:
    - Name, address and contact details of the complainant (with the complainant's permission);
    - A brief outline of the complaint;
    - Date of Complaint;
    - Name of person receiving complaint details;
    - Agreed timeline for response to the complaint;
    - All complaints will be communicated to the Project Manager and the Developer immediately;
    - All complaints will be followed up and resolved in so far as is practicable; and
    - The complainant, the Developer and other stakeholders will be kept informed of the progress in resolving the complaint.

12.2.6 EMERGENCY CONTACT DETAILS

A list of emergency contacts is presented in Table 5.2 below. A copy of these contacts will be included in the Site Safety Manual and the Site offices, and the various site welfare facilities.

Table 12-2 List of Emergency Contacts

Contact	Telephone
Emergency Services; Ambulance, Fire, Gardaí	112 / 999
Local Garda Station; Miltown Malbay	+353(065)7084222
Local Fire Service	999 or 112
Local Doctor / GP Service – GP Surgery Milton Malbay	+353657079011
Milton Malbay Medical Centre	+353657084494
Ennis Hospital	+353656824464
ESB Faults / Emergencies	1850 372 999
Gas Networks Ireland 24hr Emergency Line	1850 20 50 50
Site Manager / Construction Manager / Site Supervisor	TBC
Developer: JC Mont Fort Holding SA	TBC
Environmental Manager	TBC
Project Supervisor Design Stage (PSDS)	TBC
Project Supervisor Construction Stage (PSCS)	TBC
Health and Safety Authority Ireland (HSA)	TBC
Inland Fisheries Ireland (IFI)	TBC
Project Ecologist	TBC
Project Hydrologist	TBC
Project Geotechnical Engineer / Geologist	TBC
Project Archaeologist	TBC

12.2.7 EMERGENCY COMMUNICATION PROCEDURE

The Main Contractor's CEMP will be updated with an agreed Emergency Communication Response Procedure following the appointment of the Contractor.

12.2.8 INDUCTION CHECKLIST

All personnel working on-site will be required to complete a mandatory site induction before commencing any activities. As part of this induction, key elements of the Emergency Response Procedure (ERP) will be communicated to ensure everyone is aware of the protocols to follow in the event of an incident.

Table 12-3 sets out the minimum topics related to emergency preparedness that must be covered during induction or gathered from site personnel. This checklist will be reviewed and updated as the

project progresses through different phases and will be further developed in the contractor's final CEMP to reflect the site-specific setup and emergency arrangements at that time.

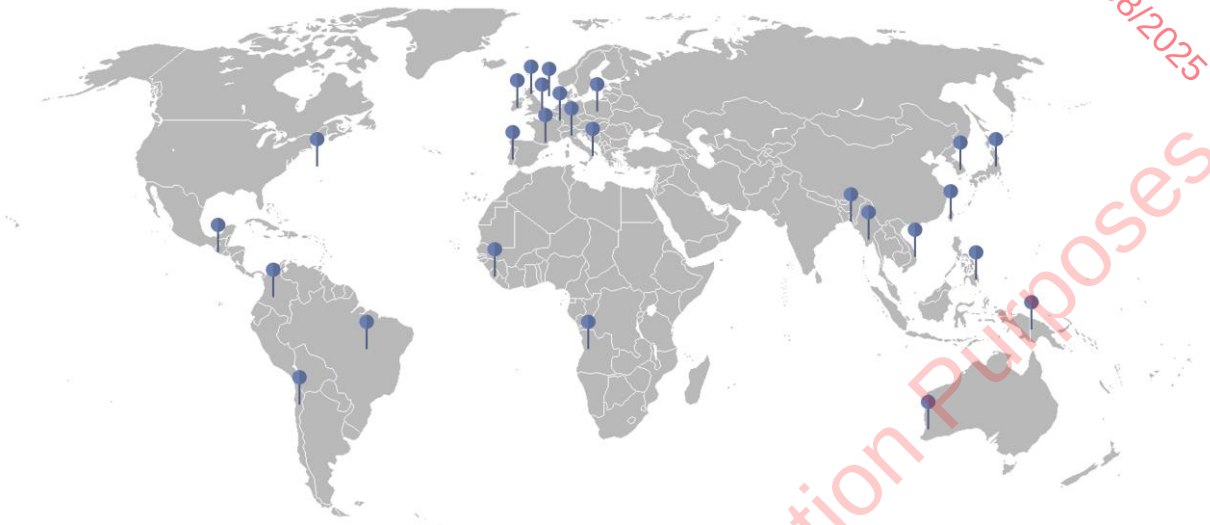
Table 12-3 Induction Checklist: Emergency Preparedness Requirements

Item	Details / Action Required
Emergency Contacts	Site emergency contact list to be shared and available at all work locations.
Site Layout Familiarisation	Orientation includes the location of welfare units, muster points, first aid stations, and spill kits.
Muster Points	Location and procedure for evacuation and roll call in the event of an emergency.
Fire and Evacuation Procedure	Instruction on raising the alarm, fire extinguisher use, and safe evacuation routes.
Spill Response Procedure	Location of spill kits, reporting procedures, and immediate response actions.
First Aid	Identification of trained first aiders and location of first aid equipment.
Incident Reporting	Procedure for reporting near misses, hazards, and actual incidents.
Restricted Areas / No-Go Zones	Identification of exclusion zones (e.g. around substations, peat repositories, watercourses).
PPE Requirements	Mandatory PPE list and task-specific PPE requirements.
Toolbox Talks and Daily Briefings	Requirement to attend and engage in ongoing H&S and environmental briefings.
Welfare and Hygiene Facilities	Locations of toilets, handwashing, rest areas, and expectations for site hygiene.
Access and Egress Routes	Approved pedestrian and vehicle access routes, speed limits, and traffic management plan.
Lone Working and Communications	Controls are in place for lone workers, including check-in procedures or buddy systems.
Smoking / Open Flame Restrictions	Designated smoking areas and prohibition of open flames across the site.

13 CONCLUSION AND APPROVAL

This oCEMP shall be further developed by the appointed Main Contractor upon appointment. Environmental provisions will be refined further and elaborated once more information on the construction methods and program becomes available. These details will all be incorporated in the CEMP by the Main Contractor before the commencement of construction at the Proposed Development.

GLOBAL PROJECT REACH



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