



APPENDIX 4-6

DECOMMISSIONING PLAN

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1. INTRODUCTION

This Decommissioning Plan has been developed by MKO on behalf of Slieveacurry Ltd., to accompany an application for planning permission to An Coimisiún Pleanála (ACP) for the Proposed Project. The Proposed Project comprises the Proposed Wind Farm Site, the Proposed Grid Connection Site and the Proposed Enhancement Site.

This document is being prepared alongside an Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement ('NIS') which accompany this planning application for the Proposed Project to ACP.

For the purposes of this EIAR, the various project components are described and assessed using the following references: 'Proposed Project', the 'Site', 'Proposed Wind Farm Site', 'Proposed Turbines', 'Proposed Grid Connection Site' and the 'Proposed Enhancement Site'. Please see Section 1.1.2 of this EIAR for further details. A detailed description of the Proposed Project is provided in Chapter 4 of this EIAR.

Decommissioning of the Proposed Project will be scheduled to take place after the proposed 35-year lifespan. The proposed extension to the existing Slievecallan 110kV substation at Knockalassa will remain in place as it will be part of the Electricity Grid under the ownership and control of the ESBN.

As noted in the Scottish Natural Heritage report (SNH) *Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms* (SNH, 2013) reinstatement proposals for a wind farm are made approximately 30 years in advance, so within the lifespan of the wind farm, technological advances and preferred approaches to reinstatement are likely to change. According to the SNH guidance, it is therefore:

“best practice not to limit options too far in advance of actual decommissioning but to maintain informed flexibility until close to the end-of-life of the wind farm”.

In this regard, this Decommissioning Plan will be reviewed and updated prior to commencement of decommissioning works to take account of the relevant conditions of the planning permission and current health and safety standards.

This report provides the environmental management framework to be adhered to during the decommissioning phase of the Proposed Project, and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur.

1.1 Scope of the Decommissioning Plan

This report is presented as a guidance document for the decommissioning of the Proposed Project. The Decommissioning Plan clearly outlines the mitigation measures and monitoring proposals that are required to be adhered to in order to complete the works in an appropriate manner.

The report is divided into nine sections, as outlined below:

Section 1 provides a brief introduction as to the scope of the report.

Section 2 outlines the Site and Project details, detailing the targets and objectives of this plan along with providing an overview of works methodologies that will be adopted throughout decommissioning.

Section 3 sets out details of the environmental controls to be implemented on site including the mechanisms for implementation. A waste management plan is also included in this section.

Section 4 outlines the general Health and Safety measures that will be implemented on site during the decommissioning phase of the Proposed Project.

Section 5 outlines the Emergency Response Procedure to be adopted in the event of an emergency in terms of site health and safety and environmental protection.

Section 6 sets out a programme for the timing of the works.

Section 7 consists of a summary table of all mitigation measures to be adhered to during the decommissioning-phase.

Section 8 consists of a summary table of all monitoring requirements for the operational and decommissioning-phases.

Section 9 outlines the proposals for reviewing compliance with the provisions of this report.

2. SITE AND PROJECT DETAILS

2.1 Site Location and Description

The Site is located approx. 7km south of Ennistimon, Co. Clare and 8km west of Inagh, Co. Clare. The town of Miltown Malbay is located approx. 5.8km east of the nearest proposed turbine (T07). It is proposed to access the Proposed Wind Farm Site via an existing access track off the local road to the northwest of the site. The Proposed Wind Farm Site is served by a number of existing local, forestry and agricultural roads and tracks. The site location context is shown in Figure 2-1.

The planning application includes for a proposed extension to the existing Slievecallan 110kV substation in the townland of Knockalassa, Co. Clare. The planning application also includes for the construction of a 33kV underground cabling from the wind farm road to the proposed substation extension. The proposed underground cable connection measures approx. 7.1 km in total and is located on existing forest roads/land, agricultural land and within the public road corridor.

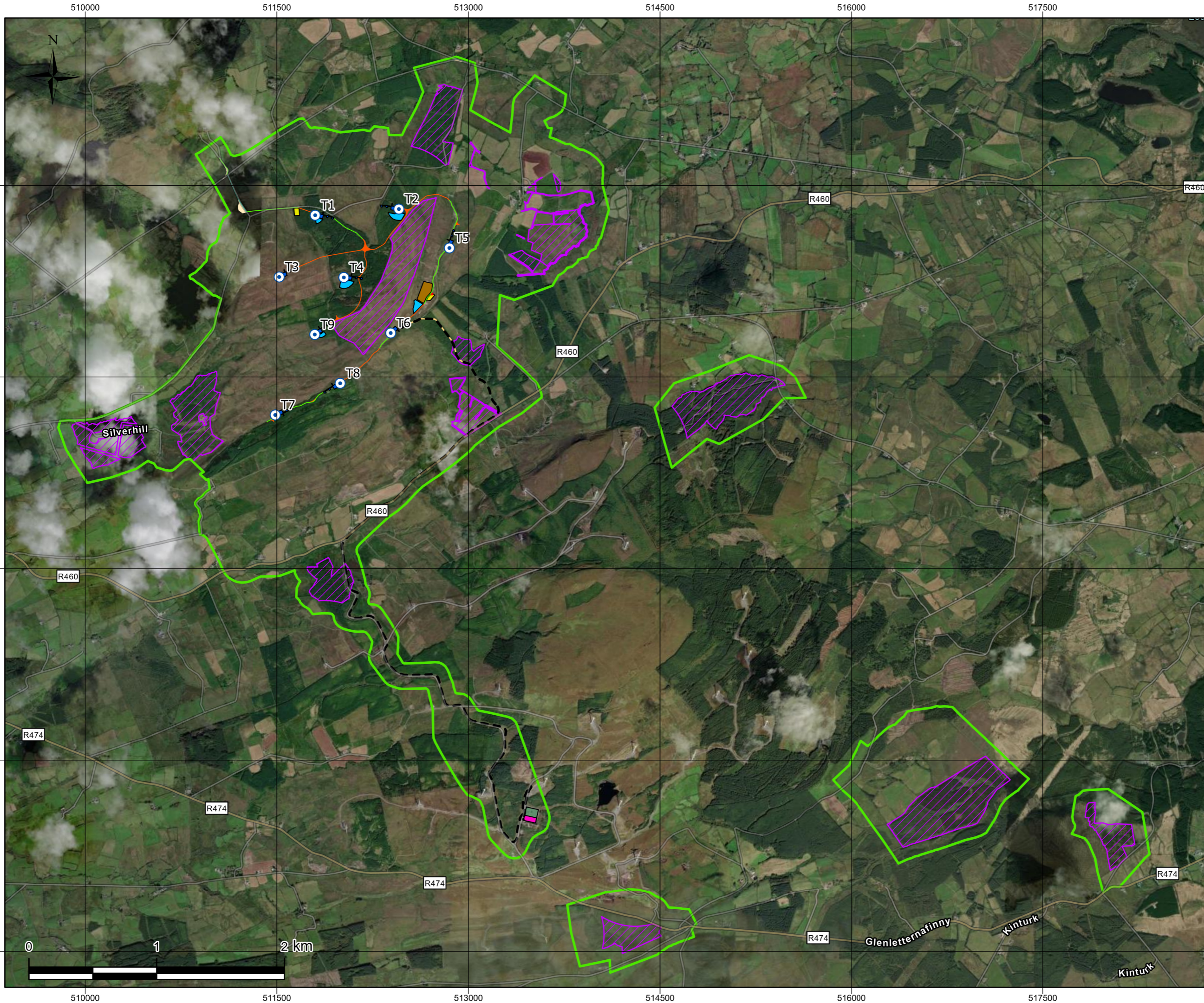
Current land-use on the Site comprises coniferous forestry, agriculture, turf cutting and public road corridor. Land-use in the wider landscape comprises a mix of agriculture, low density housing, renewable energy and commercial forestry.

The townlands in which the Proposed Project is located are listed in Table 1-1 in Chapter 1 of the EIAR.

2.2 Description of the Proposed Project

The Proposed Project comprises 9 no. wind turbines, underground 33kV cabling and the proposed extension to the existing Slievecallan 110kV substation at Knockalassa and all associated works and apparatus. The full description of the Proposed Project is detailed in Chapter 4 of this EIAR. This application seeks a ten-year planning permission and 35-year operational life from the date of commissioning of the Proposed Turbines.

The overall layout of the Proposed Project is shown on Figure 2-1. This figure shows the Proposed Turbines, 33kV underground cabling, permanent extension of the existing Slievecallan 110kV substation, peat and spoil management areas, met mast, temporary construction compounds, internal roads layout and entrance to the Proposed Wind Farm Site. Detailed site layout drawings of the Proposed Project are included in Appendix 4-1 to this EIAR.



Map Legend

- EIA Site Boundary
- Proposed Turbines
- Proposed Turbine Hardstands
- Existing Roads to be Upgraded
- Proposed New Roads
- Public Road to be Upgraded
- Public Road to be Maintained
- Proposed Borrow Pit
- Proposed Temporary Construction Compound
- ▲ Met Mast
- Proposed 33kV Underground Cabling
- Existing Slieveacallan 110kV Substation
- Proposed Access Track
- Proposed Peat and Spoil Management Areas
- Turbine Delivery Overrun Areas
- Proposed Biodiversity Enhancement Areas

Spatial Reference
 Name: IRENET95 Irish Transverse Mercator
 Datum: IRENET95
 Projection: Transverse Mercator



Proposed Project Layout

Project Title
 Slieveacurry Renewable Energy Development Co. Clare

Project No. 240718	Drawing No. 2-1	Scale 1:27,500
Drawn By MVN	Checked By BT	Date 24/04/2026

Email: info@mkoireland.ie / Website: www.mkoireland.ie

2.3 Targets and Objectives

The decommissioning phase works will be completed to the approved standards at the time of decommissioning, which include specified materials, standards, specifications and codes of practice. This Decommissioning Plan has considered environmental issues, and this is enhanced by the works proposals as part of decommissioning.

The key site targets are as follows:

- Ensure decommissioning works and activities are completed in accordance with mitigation and best practice approach presented in the accompanying Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and associated planning documentation.
- Ensure decommissioning works and activities have an imperceptible impact/disturbance to local landowners and the local community.
- Ensure decommissioning works and activities have an imperceptible impact on the natural environment.
- Adopt a sustainable approach to decommissioning; and,
- Provide adequate environmental training and awareness (to the approved standards at the time of decommissioning) for all project personnel.

The key site objectives are as follows:

- Using recycled materials if possible, e.g. soil and overburden material for backfilling and reinstatement. Ensure sustainable sources for materials supply where possible.
- Avoidance of any pollution incident or near miss as a result of working around or close to existing watercourses and have emergency measures in place.
- Avoidance of vandalism.
- Keeping all watercourses free from obstruction and debris.
- Correct implementation of the sustainable drainage system (SuDS) drainage design principles.
- Keep impact of decommissioning works to a minimum on the local environment, watercourses, and wildlife.
- Correct fuel storage and refuelling procedures to be followed.
- Good waste management and housekeeping to be implemented.
- Air and noise pollution prevention to be implemented.
- Monitoring of the works and any adverse effects that it may have on the environment.

2.4 Decommissioning Methodologies Overview

2.4.1 Introduction

An experienced main contractor will be appointed to undertake the decommissioning of the Proposed Project. The main contractors will comply with the Decommissioning Plan prepared for the decommissioning phase and any revisions made to this document throughout the phase in which it is adopted. An overview of the decommissioning methodologies is provided below.

2.4.2 Decommissioning Methodology

As construction will be completed, elements of the project that will be developed as a temporary facilitator will either be removed, restored to its original condition, or will naturally revegetate, i.e., the temporary construction compounds. All access roads and hardstanding areas forming part of a site

roadway network will be required by the ongoing farming operations and therefore will be left in situ for future use.

It is intended that decommissioning process will remove all the remaining elements i.e., above ground components and underground cabling from the Proposed Wind Farm Site and Proposed Grid Connection Site, and reinstate areas where infrastructure is removed. The following elements will be decommissioned:

- **Turbines and met mast:** dismantling and removal off site;
- **Turbine and met mast foundation:** Turbine and met mast foundation backfilling following dismantling and removal of wind turbines (foundations that protrude above ground level will be backfilled with soil - underground reinforced concrete remaining in-situ);
- **Internal underground cabling:** removal (ducting remaining);
- **Temporary Construction Compound:** left in situ and covered with soil material
- **Proposed Extension to Existing 110kV Substation:** will not be decommissioned and will remain in place; and
- **33kv underground cabling:** removal (ducting remaining).

2.4.2.1 Proposed Wind Farm Site

2.4.2.1.1 Turbines and Met Mast

Prior to any works being undertaken on wind turbines or the met mast, they will be disconnected from the grid by the site operator in conjunction with ESB Networks. The dismantling and removal of wind turbines and met mast of this scale is a specialist operation which will be undertaken by the turbine supplier or competent subcontractor. Turbine dismantling will be undertaken in reverse order to methodology employed during their construction. Cranes will be brought back to the Proposed Wind Farm Site utilising the hardstand areas adjacent to each turbine. The dismantling of turbines and met mast will be bound by the same safety considerations as will be the case during construction in terms of weather conditions. Works will not be undertaken during adverse weather conditions and in particular not during high winds.

The turbines and met mast will be removed from the Proposed Wind Farm Site in a similar manner to how they will be transported to the site originally in extended articulated trucks. The details of transport to and from the Proposed Wind Farm Site are assessed in Chapter 15.1 of the EIAR, which accompanies this application.

The transport of disassembled turbines from the Proposed Wind Farm Site will be undertaken in accordance with a Transport Management Plan (TMP). The TMP will be issued to and agreed with the planning authority at that time as part of a permit application for the delivery of abnormal loads using the local roads under the Road Traffic (Special Permits for Particular Vehicles) Regulations 2007. The TMP will provide for all necessary safety measures, including a convoy and Garda escort as required, off-peak turning/reversing movements and any necessary safety controls. A Traffic Management Plan is included as Appendix 15-2 of this EIAR.

2.4.2.1.2 Turbine and Met Mast Foundations

On the dismantling of turbines and met mast, it is not intended to remove the concrete foundation from the ground. It is considered that its removal will be the least preferred options in terms of potential effects on the environment. Therefore, the foundations of the 9 no. turbine and met mast will be covered with soil material. If there is usable soil or overburden material on the Proposed Wind Farm Site after construction, this material will be used. Alternatively, where material is not readily available on site, soil will be sourced locally and imported to site on heavy good vehicles (HGVs). The imported soil will be spread and graded over the foundation using a tracked excavator and revegetation

enhanced by spreading of an appropriate seed mix to assist in revegetation and accelerate the resumption of the natural drainage management that will have existed prior to any construction.

2.4.2.1.3 **Internal Underground Cabling**

The internal underground cabling within the Proposed Wind Farm Site, connecting the turbines and the meteorological mast to the proposed extension to the existing Slievecallan 110kV substation, will be pulled from the cable duct using a mechanical winch which will extract the cable and re-roll it on to a cable drum. This will be undertaken at each of the pull pits along the cabling route. The ground above original pulling pits will be excavated using a mechanical excavator and will be fully re-instated once the cables are removed.

The cable ducting will be left in-situ as it is considered the most environmentally prudent option, avoiding unnecessary excavation and soil disturbance for an underground element that is not visible with no environmental impact associated with leaving the ducting in-situ.

2.4.2.1.4 **Temporary Construction Compounds**

As construction is completed, the proposed 2 no. temporary construction compounds that were developed as a temporary facilitator will be removed and the concrete foundation will be left in situ and covered with soil material. If there is usable soil or overburden material on the Proposed Wind Farm site after construction, this material will be used. Alternatively, where material is not readily available on site, soil will be sourced locally and imported to site on heavy good vehicles (HGVs). The imported soil will be spread and graded over the foundation using a tracked excavator and revegetation enhanced by spreading of an appropriate seed mix to assist in revegetation.

2.4.2.2 **Proposed Grid Connection Site**

2.4.2.2.1 **Proposed Extension to Existing 110kV Substation**

The proposed extension to the existing Slievecallan 110kV substation will not be decommissioned and will remain in place as it will be under the ownership and control of ESB Networks and/or EirGrid.

2.4.2.2.2 **33kV Underground Cabling**

The proposed 33kV underground cabling from the wind farm road to the proposed extension to the existing Slievecallan 110kV substation will be removed from the cable ducts. The cabling will be pulled from the cable ducts using a mechanical winch which will extract the cable and re-roll it on to a cable drum. This will be undertaken at the original cable jointing pits which will be excavated using a mechanical excavator and will be fully re-instated once the cables are removed. The cable ducting will be left in-situ as it is considered the most environmentally prudent option, avoiding unnecessary excavation and soil disturbance. The cable materials will be transferred to a suitable recycling or recovery facility.

2.4.2.3 **Proposed Enhancement Site**

The Proposed Enhancement Site, containing the proposed biodiversity and ornithology enhancement and management areas, is included as part of the overall Proposed Project. This involves deforestation and restoration measures, management of farmland for hen harrier, marsh fritillary habitat management as well as planting of linear habitats. These measures will continue to exist on site as permanent measures after the Proposed Project is decommissioned.

3. ENVIRONMENTAL MANAGEMENT

The following sections give an overview of the drainage, dust and noise control measures, a waste management plan for the Site and the implementation of the environmental management procedures for the Site.

3.1 Site Drainage

The site drainage features for this Proposed Wind Farm Site during its construction and operation are outlined in the EIAR which accompany this application. As this Decommissioning Plan is a working document and is presented as an Appendix to the EIAR, the drainage measures are not included in this document. When the final Decommissioning Plan is prepared prior to decommissioning and presented as a standalone document, all drainage management measures, which will include maintenance of the operational drainage measures, will be included in that document, as required. The drainage proposals will be developed further prior to the commencement of decommissioning if deemed necessary. However, it should be noted that by the time decommissioning is undertaken after the planned 35-year lifespan of the Proposed Project, the areas within the Proposed Wind Farm Site will have revegetated resulting in a resumption of the natural drainage management that will have existed prior to any construction. It is not anticipated that the decommissioning phase will interrupt this restored drainage regime in any way with the works proposed. As a minimum measure, areas where freshly placed soil material as part of turbine foundation reinstatement will be surrounded by silt fencing if deemed necessary until the area has naturally revegetated.

3.1.1 Refuelling, Fuel and Hazardous Materials Storage

Wherever possible, vehicles will be refuelled off-site, particularly for regular road-going vehicles. On-site refuelling of machinery will be carried out at designated refuelling areas at various locations throughout the Site. Heavy plant and machinery will be refuelled on-site by a fuel truck that will come to the Site as required on a scheduled and organised basis. Other refuelling will be carried out using mobile double skinned fuel bowser. The fuel bowser will be parked on a level area in the construction compound when not in use.

All refuelling will be carried out outside designated watercourse buffer zones. Only designated trained and competent operatives will be authorised to refuel plant on-site. Mobile measures such as drip trays and fuel absorbent mats will be used during refuelling operations as required. All plant and machinery will be equipped with fuel absorbent material and pads to deal with any event of accidental spillage.

The following mitigation measures are proposed to avoid release of hydrocarbons at the Site:

- Wherever possible, vehicles will be refuelled off-site, particularly for regular road-going vehicles.
- All plant will be inspected and certified to ensure that they are leak free and in good working order prior to use at the Site.
- On-site refuelling of machinery will be carried out at designated refuelling areas at various locations throughout the Site.
- Heavy plant and machinery will be refuelled on-site by a fuel truck, with spill kits kept onboard, that will come to the Site as required on a scheduled and organised basis.
- Other refuelling will be carried out using mobile double skinned fuel bowser. The fuel bowser will be parked on a level area in the construction compound when not in use.
- Only designated trained operatives will be authorised to refuel plant on-site;

- Refuelling or maintenance of machinery will not occur within the delineated hydrological buffer zones;
- Fuels stored on site will be minimised;
- Any diesel or fuel oils stored at the temporary construction compound will be bunded. The bund capacity will be sufficient to contain 110% of the storage tank's maximum capacity; and,
- An emergency plan for the construction phase to deal with accidental spillages will be contained within Section 6.1.4 of the CEMP (Appendix 4-5). Spill kits will be available to deal with accidental spillages.

3.2 Dust Control

Construction dust can be generated from many on-site activities such as excavation and backfilling. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e., soil, sand, peat, etc. and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or periods of dry weather. Construction traffic movements also have the potential to generate dust as they travel along the haul route.

In periods of extended dry weather, dust suppression may be necessary within the Proposed Wind Farm Site, along haul roads and along the public road corridor, proposed new roads in private agricultural land, and proposed upgrades to existing private track associated with the 33kv underground cabling route to ensure dust does not cause a nuisance. If necessary, water will be taken from stilling ponds in the Site's drainage system and will be pumped into a bowser or water spreader to dampen down the relevant areas to prevent the generation of dust. Silty or oily water will not be used for dust suppression, as this would generate polluted runoff or more dust. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff.

Proposed measures to control dust include:

- Sporadic wetting of loose stone surface will be carried out during the construction phase to minimise movement of dust particles to the air. In periods of extended dry weather, dust suppression may be necessary along haul roads to ensure dust does not cause a nuisance. Water bowser movements will be carefully monitored by the Ecological Clerk of Works (ECoW) to avoid, insofar as reasonably possible, increased runoff.
- All plant and materials vehicles shall be stored in dedicated areas within the Site.
- Areas of excavation will be kept to a minimum, and stockpiling of excavated material will be minimised by coordinating excavation, placement of material in peat and spoil management areas.
- Turbines and construction traffic will be transported to the Site on specified haul routes only.
- The agreed haul route road adjacent to the Site will be regularly inspected for cleanliness and cleaned as necessary.
- The roads adjacent to the Proposed Wind Farm Site proposed new entrance will be checked weekly for damage/potholes and repaired as necessary.
- The transportation of construction materials from locally sourced quarries for the Proposed Grid Connection Site infrastructure and for the Proposed Wind Farm Site will be covered by tarpaulin where necessary.
- If necessary, excavated material will be dampened prior to transport to the spoil management areas.
- Approximately 5 dust monitoring gauges will be deployed across the Proposed Wind Farm Site to detect any exceedances of acceptable dust levels.
- Waste material will be transferred to a licensed/permitted Materials Recovery Facility (MRF) by a fully licensed waste contractor where the waste will be sorted into individual waste streams for recycling, recovery or disposal.

- The MRF facility will be local to the Proposed Project to reduce the amount of emissions associated with vehicle movement.
- A CEMP will be in place throughout the construction phase (see Appendix 4-5). The CEMP includes dust suppression measures.
- Groundworks (i.e. works with potential to create dust) associated with the Proposed Project will be fully supervised by an Ecological Clerk of Works (ECoW).
- The ECoW will regularly monitor adjacent marsh fringing habitat on a daily basis for potential signs of dust deposition or any other habitat degradation. Dust level thresholds and weather will also be monitored.
- If any signs of habitat degradation are noted, the dust-producing works will be immediately halted and further mitigation to protect larval web areas from dust will be implemented in advance of resuming work.
- If any signs of habitat degradation are noted, the dust-producing works will be immediately halted and further mitigation to protect larval web areas from dust will be implemented in advance of resuming work.
- The ECoW will have power to halt construction works if required as outlined above.
- When necessary, sections of the haul route will be swept using a truck mounted vacuum sweeper. The site roads will be well finished with compacted hardcore, and so the public road-going vehicles will not be travelling over soft or muddy ground where they might pick up mud or dirt.

3.3 Noise Control

The contract documents will specify that the Contractor undertaking the decommissioning works will be obliged to adopt best practice noise abatement measures contained in British Standard BS 5228-1:2009+A1:2014 '*Code of practice for noise and vibration control on construction and open sites – Noise*' and BS 5228-2:2009+A1:2014 '*Code of practice for noise and vibration control on construction and open sites – Vibration*'.

The operation of plant and machinery, including construction vehicles, is a source of potential impact that will require mitigation at all locations within the Site. The following proposed measures to control noise will be implemented in full include:

- Limiting the hours during which site activities likely to create high levels of noise or vibration are permitted;
- Establishing channels of communication between the contractor/developer, Local Authority and residents;
- Appointing a site representative responsible for matters relating to noise and vibration; and
- Monitoring typical levels of noise and vibration during critical periods and at sensitive locations.

Section 8 of BS5228-1:2009+A1:2014 as outlined in Chapter 12: Noise & Vibration of the EIAR, further recommends a number of simple control measures as summarised below that will be employed onsite:

- No plant used on site will be permitted to cause an on-going public nuisance due to noise.
- The best means practicable, including proper maintenance of plant, will be employed to minimise the noise produced by on site operations.
- All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the contract.
- Compressors will be attenuated models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic tools shall be fitted with suitable silencers.

- Machinery that is used intermittently will be shut down or throttled back to a minimum during periods when not in use.
- Any plant, such as generators or pumps, which is required to operate outside of general construction hours will be surrounded by an acoustic enclosure or portable screen as appropriate.
- During the course of the deconstruction programme, supervision of the works will include ensuring compliance with the limits detailed in Table 12-1 of Chapter 12 using methods outlined in British Standard BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Noise.
- The hours of decommissioning activity will be limited to avoid unsociable hours where possible. Decommissioning operations shall generally be restricted to between 7:00hrs and 19:00hrs Monday to Saturday. An assessment of the operation noise levels has been undertaken in accordance with best practice guidelines and procedures as outlined in Section 12.3 in Chapter 12 of the EIAR. The findings of the assessment confirmed that the predicted operational noise levels will be within the relevant best practice noise criteria curves for wind farms at all locations.

3.4 Invasive Species Management

Any soil material that will be imported to the Proposed Wind Farm Site as part of the foundation reinstatement will be free of any invasive species (listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)). The Site Manager will take steps to ensure the sourcing of suitably clean soil material and verify the quality of the material by having it inspected prior to bringing it to site by a suitably qualified ecologist. Prior to decommissioning, a suitably qualified ecologist will complete an invasive species survey of the Site to identify invasive species where any minor excavation will be required. If present in these areas, the ecologist will propose suitable management measures.

Full details of all scheduled invasive species recorded during the surveys, with locations, are provided in the Invasive Species Management Plan (ISMP) in Appendix 6-5.

3.5 Traffic Management

A Traffic Management Plan (TMP) will be prepared in advance of any decommissioning works. The removal of turbines from the Proposed Wind Farm Site will be undertaken for a specialist haulier. The traffic management arrangements although similar to those that will be implemented for turbine delivery as outlined in the EIAR will be agreed in advance of decommissioning with the competent authority.

3.6 Waste Management

This section of the Decommissioning Plan provides a Resource Waste Management Plan (RWMP) which outlines the best practice procedures during the decommissioning of the Proposed Project. The RWMP outlines the methods of waste prevention and minimisation by recycling, recovery and reuse at each stage of decommissioning. Disposal of waste will be a last resort.

3.6.1 Legislation

The Waste Management Act 1996 (the Act) and its subsequent amendments provide for measures to improve performance in relation to waste management, recycling and recovery. The Act also provides

a regulatory framework for meeting higher environmental standards set out by other national and EU legislation.

The Act requires that any waste related activity has to have all necessary licenses and authorisations. It will be the duty of the Waste Manager on the Site to ensure that all contractors hired to remove waste, have valid Waste Collection Permits. It will then be necessary to ensure that the waste is delivered to a licensed or permitted waste facility. The hired waste contractors and subsequent receiving facilities must adhere to the conditions set out in their respective permits and authorisations. Waste removal-related traffic volumes during the decommissioning phase, will be less than those anticipated and assessed for the construction phase.

The Department of the Environment provides a document entitled, *'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects'* (2006). It is important to emphasise that no demolition will take place at this site, however, this document was referred to throughout the process of completing this RWMP.

3.6.2 Waste Management Hierarchy

The waste management hierarchy sets out the most efficient way of managing in the following order:

Prevention and Minimisation:

The primary aim of the RWMP will be to prevent and thereby reduce the amount of waste generated at each stage of the Proposed Project.

Reuse of Waste:

Reusing as much of the waste generated on site as possible will reduce the quantities of waste that will have to be transported off site to recovery facilities or landfill.

Recycling of Waste:

There are several established markets available for the beneficial use of Construction and Demolition waste such as using waste concrete as fill for new roads.

At all times during the implementation of the RWMP, disposal of waste to landfill will be considered only as a last resort.

3.6.3 Waste Arising from Decommissioning

The relevant components will be removed from the Proposed Wind Farm Site for re-use, recycling or waste disposal. Any structural elements that are not suitable for recycling will be disposed of in an appropriate manner. All lubrication fluids will be drained down and put aside for appropriate collection, storage, transport and disposal. Any materials which cannot be re-used or recycled will be disposed of by an appropriately licenced contractor.

The waste types arising from the decommissioning of the Proposed Wind Farm Site are outlined in Table 3-1 below.

Table 3-1 Expected waste types arising during the Decommissioning Phase

Material Type	Example	EWG Code
Cables	Electrical wiring	17 04 11

Metals	Copper, aluminium, lead and iron	17 04 07
Fibreglass	Turbine blade component	10 11 03
Hydrocarbons	Oils and lubricants drained from the turbines	13 01 01, 13 02 04

3.6.3.1 Reuse

Many construction materials can be reused several times before they have to be disposed of:

- Electrical wiring can be reused on similar wind energy projects.
- Elements of the turbine components can be reused but this will be determined by the condition that they are in.

3.6.3.2 Recycling

If a certain type of construction material cannot be reused onsite, then recycling is the most suitable option. The opportunity for recycling during decommissioning will be limited and restricted to components of the wind turbines.

All waste that is produced during the decommissioning phase including dry recyclables will be deposited in the on-site skip initially and sent for subsequent segregation at a remote facility. The anticipated volume of all waste material to be generated at the Site is low which provides the justification for adopting this method of waste management.

3.6.3.3 Implementation

3.6.3.3.1 Roles and Responsibilities

Prior to the commencement of the decommissioning, a Construction Waste Manager will be appointed by the Contractor. The Construction Waste Manager will oversee the implementation of the objectives of the RWMP, ensuring that all hired waste contractors have the necessary authorisations and that the waste management hierarchy is adhered to. The person nominated must have sufficient authority so that they can ensure everyone working on the decommissioning adheres to the RWMP.

3.6.3.3.2 Training

It is important for the Construction Waste Manager to communicate effectively with colleagues in relation to the aims and objectives of the waste management plan. All employees working on site during the decommissioning phase of the Proposed Project will be trained in materials management and thereby, should be able to:

- Distinguish reusable materials from those suitable for recycling.
- Ensure maximum segregation at source.
- Co-operate with site manager on the best locations for stockpiling reusable materials.
- Separate materials for recovery; and
- Identify and liaise with waste contractors and waste facility operators.

3.6.3.3.3 Record Keeping

The RWMP will provide systems that will enable all arisings, movements and treatments of construction waste to be recorded. This system will enable the contractor to measure and record the quantity of waste being generated. It will highlight the areas from which most waste occurs and allows the

measurement of arisings against performance targets. The RWMP can then be adapted with changes that are seen through record keeping.

The fully licensed waste contractor employed to remove waste from the Site will be required to provide documented records for all waste dispatches leaving the Site. Each record will contain the following:

- > Consignment Reference Number
- > Material Type(s) and EWC Code(s)/LOW Codes(s)
- > Company Name and Address of Site of Origin
- > Trade Name and Collection Permit Ref. of Waste Carrier
- > Trade Name and Licence Ref. of Destination Facility
- > Date and Time of Waste Dispatch
- > Registration no. of Waste Carrier vehicle
- > Weight of Material
- > Signature of Confirmation of Dispatch detail
- > Date and Time of Waste Arrival at Destination
- > Site Address of Destination Facility

3.6.3.4 Resource Waste Management Plan Conclusion

The RWMP will be properly adhered to by all staff involved in the Proposed Project which will be outlined within the induction process for all site personnel. The waste hierarchy should always be employed when designing the plan to ensure that the least possible amount of waste is produced during decommissioning. Reuse of certain types of construction wastes will cut down on the cost and requirement of raw materials therefore further minimising waste levels.

This RWMP has been prepared to outline the main objectives that are to be adhered to and it will be updated as required prior to decommissioning.

3.7 Environmental Management Implementation

3.7.1 Roles and Responsibilities

The Site Manager and/or ECoW are the project focal point relating to decommissioning-related environmental issues.

In general, the ECoW will maintain responsibility for monitoring the decommissioning works and Contractors/Sub-contractors from an environmental perspective. The ECoW will act as the regulatory interface on environmental matters. The Site Manager will be responsible for reporting to and liaising with CCC and other statutory bodies as required.

The Site Manager in consultation with the ECoW will be responsible for employing the services of a suitably qualified ecologist and any other suitably qualified professionals as required throughout the decommissioning works.

4. HEALTH AND SAFETY

Decommissioning of the Proposed Project will necessitate the presence of a construction site and travel on the local public road network to and from the Site. Construction sites and the machinery used on them pose a potential health and safety hazard to construction workers if site rules are not properly implemented.

The Proposed Project will be decommissioned in accordance with all relevant Health and Safety Legislation, including:

- Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005);
- Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2016 (S.I. No. 36 of 2016);
- S.I. No. 528/2021 - Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021 and
- Safety, Health and Welfare at Work (Work at Height) Regulations 2006 (S.I. No. 318 of 2006).

The following measures below are also detailed in Chapter 18 Schedule of Monitoring and Mitigation Measures.

- A Health and Safety Plan covering all aspects of the decommissioning process will address the Health and Safety requirements in detail. This will be prepared on a preliminary basis at the procurement stage and developed further at decommissioning stage.
- All hazards will be identified, and risks assessed. Where elimination of the risk is not feasible, appropriate mitigation and/or control measures will be established. The contractor will be obliged under the decommissioning contract and current health and safety legislation to adequately provide for all hazards and risks associated with the decommissioning phase of the Proposed Wind Farm Site. Safepass registration cards are required for all decommissioning, delivery and security staff. Decommissioning operatives will hold a valid Construction Skills Certificate Scheme card where required. The developer is required to ensure a competent contractor is appointed to carry out the decommissioning works. The contractor will be responsible for the implementation of procedures outlined in the Safety and Health Plan. Public safety will be addressed by restricting site access during construction. Fencing will be erected in areas of the Site where uncontrolled access is not permitted.
- The suitability of machinery and equipment for use near power lines will be risk assessed.
- All staff will be trained on operating voltages of overhead electricity lines running the Site. All staff will be trained to be aware of the risks associated with overhead lines. All contractors that may visit the Site are made aware of the location of lines before they come on to Site.
- Barriers will run parallel to the overhead line at a minimum horizontal distance of 6 metres on plan from the nearest overhead line conductor wire.
- When activities must be carried out beneath overhead lines, e.g., turbine component removal, a site-specific risk assessment will be undertaken prior to any works. The risk assessment must take into account the maximum potential height that can be reached by the plant or equipment that will be used prior to any works. Overhead line proximity detection equipment will be fitted to machinery when such works are required.
- Information on safe clearances will be provided to all staff and visitors.
- Signage indicating locations and health and safety measures regarding overhead lines will be erected in canteens and onsite.

- All staff will be made aware of and adhere to the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021'. This will encompass the use of all necessary Personal Protective Equipment and adherence to the Site Health and Safety Plan.

The scale and scope of the project necessitates that a Project Supervisor Design Process (PSDP) and Project Supervisor Construction Stage (PSCS) are required to be appointed in accordance with the provisions of the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2013'.

The PSDP appointed for the decommissioning stage shall be required to perform his/her duties as prescribed in the Safety, Health and Welfare at Work (Construction) Regulations. These duties include (but are not limited to):

- Identify hazards arising from the design or from the technical, organisational, planning or time related aspects of the project;
- Where possible, eliminate the hazards or reduce the risks;
- Communicate necessary control measures, design assumptions or remaining risks to the PSCS so they can be dealt with in the Safety and Health Plan;
- Ensure that the work of designers is coordinated to ensure safety;
- Organise co-operation between designers;
- Prepare a written Safety and Health Plan;
- Prepare a safety file for the completed structure and give it to the client; and
- Notify the Authority and the client of non-compliance with any written directions issued.

The PSCS appointed for the decommissioning stage shall be required to perform his/her duties as prescribed in the Safety, Health and Welfare at Work (Construction) Regulations. These duties include (but are not limited to):

- Development of the Safety and Health Plan for the decommissioning stage with updating where required as work progresses;
- Compile and develop safety file information.
- Reporting of accidents / incidents;
- Weekly site meeting with PSDP;
- Coordinate arrangements for checking the implementation of safe working procedures. Ensure that the following are being carried out:
- Induction of all site staff including any new staff enlisted for the project from time to time;
- Toolbox talks as necessary;
- Maintenance of a file which lists personnel on Site, their name, nationality, current Safe Pass number, current Construction Skills Certification Scheme (CSCS) card (where relevant) and induction date;
- Report on site activities to include but not limited to information on accidents and incidents, disciplinary action taken and PPE compliance;
- Monitor the compliance of contractors and others and take corrective action where necessary; and
- Notify the Authority and the client of non-compliance with any written directions issued.

5. EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is presented in this section of the Decommissioning Plan. It provides details of procedures to be adopted in the event of an emergency in terms of site health and safety and environmental protection.

5.1 Emergency Response Procedure

The Site ERP includes details on the response required and the responsibilities of all personnel in the event of an emergency. The ERP will require updating and submissions from the contractor/PSCS and sub-contractors as decommissioning progresses. Where sub-contractors that are contracted onsite are governed by their own emergency response procedure a bridging arrangement will be adopted to allow for inclusion of the sub-contractor’s ERP within this within this document.

This is a working document that requires updating throughout the various stages of the Proposed Project.

5.1.1 Roles and Responsibilities

The chain of command during an emergency response sets out who is responsible for coordinating the response. The Site Supervisor/Construction Manager will lead the emergency response which makes him responsible for activating and coordinating the emergency response procedure. The other site personnel who can be identified at this time who will be delegated responsibilities during the emergency response are presented in Figure 5-1. In a situation where the Site Supervisor/Construction Manager is unavailable or incapable of coordinating the emergency response, the responsibility will be transferred to the next person in the chain of command outlined in Figure 5-1. This will be updated throughout the various stages of the decommissioning process.

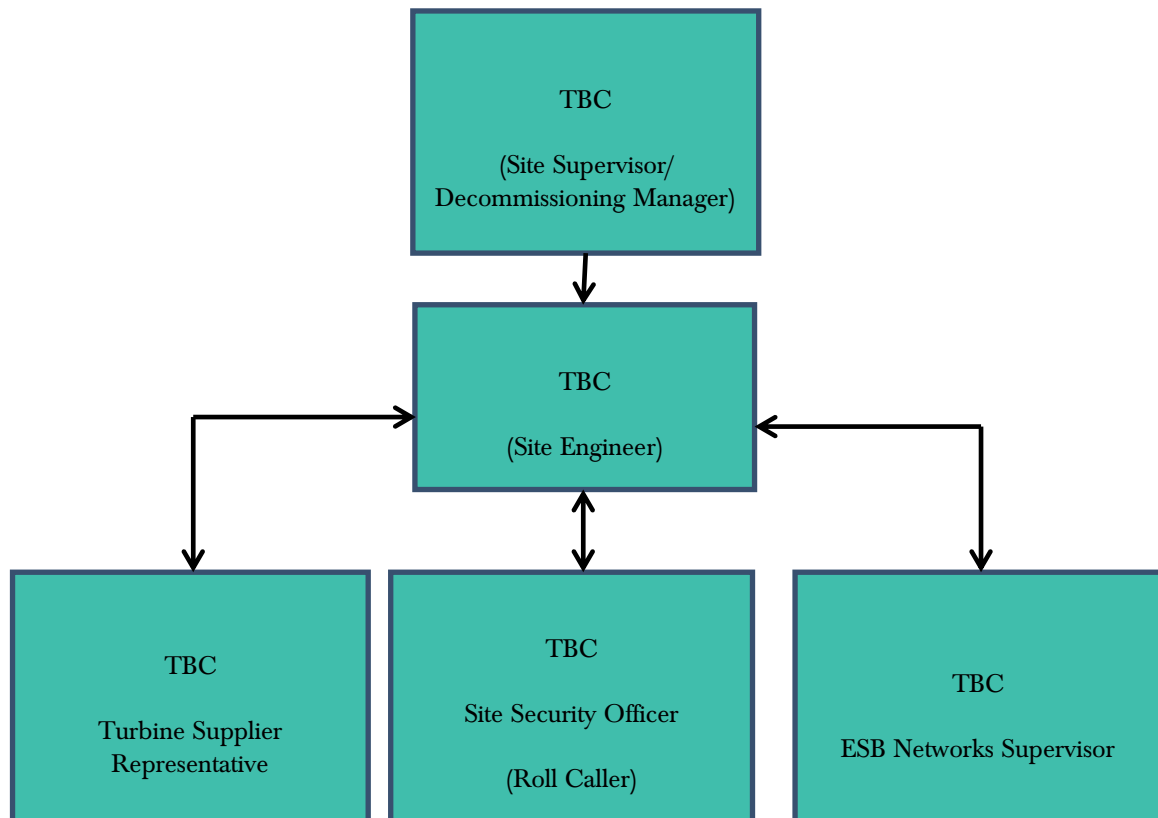


Figure 5-1 Emergency Response Procedure Chain of Command

5.1.2 Initial Steps

To establish the type and scale of potential emergencies that may occur, the following hazards have been identified in Table 5-1 below as being potential situations that may require an emergency response in the event of an occurrence.

Table 5-1 Hazards associated with potential emergency situations

Hazard	Emergency Situation
Construction Vehicles: Dump trucks, tractors, excavators, cranes etc.	Collision or overturn which has resulted in operator or third-party injury.
Peat Instability	Excessive movement of peat on site; onset of peat slide.
Abrasive wheels/Portable Tools	Entanglement, amputation or electrical shock associated with portable tools
Contact with services	Electrical shock or gas leak associated with an accidental breach of underground services
Fire	Injury to operative through exposure to fire
Falls from heights including falls from scaffold towers, scissor lifts, ladders, roofs and turbines.	Injury to operative after a fall from a height
Sickness	Illness unrelated to site activities of an operative e.g. heart attack, loss of consciousness, seizure
Turbine Specific Incident	This will be included the turbine manufacturers' emergency response plan.

In the event of an emergency situation associated with, but not restricted to, the hazards outlined in Table 5-1 the Site Supervisor/Construction Manager will carry out the following:

- Establish the scale of the emergency situation and identify the number of personnel, if any, have been injured or are at risk of injury.
- Where necessary, sound the emergency siren/foghorn that activates an emergency evacuation. The Site Supervisor/Construction Manager must proceed to the assembly point if the emergency poses any significant threat to their welfare and if there are no injured personnel at the scene that require assistance. The Site Supervisor/Construction Manager will be required to use their own discretion at that point. In the case of fire, the emergency evacuation should proceed, without exception. The evacuation procedure is outlined in Section 5.1.3.
- Make safe the area if possible and ensure that there is no identifiable risk exists with regard to dealing with the situation e.g. if a machine has turned over, ensure that it is in a safe position so as not to endanger others before assisting the injured.
- Contact the required emergency services or delegate the task to someone. If delegating the task, ensure that the procedures for contacting the emergency services as set out in Section 5.2 is followed.
- Take any further steps that are deemed necessary to make safe or contain the emergency incident e.g. cordon off an area where an incident associated with electrical issues has occurred.
- Contact any regulatory body or service provider as required e.g. ESB Networks the numbers for which as provided in Section 5.2.

- Contact the next of kin of any injured personnel where appropriate.

5.1.3 Site Evacuation/Fire Drill

A site evacuation/fire drill procedure will provide basis for carrying out the immediate evacuation of all site personnel in the event of an emergency. The following steps will be taken:

- Notification of the emergency situation. Provision of a siren or foghorn to notify all personnel of an emergency situation.
- An assembly point will be designated in the construction compound area and will be marked with a sign. All site personnel will assemble at this point.
- A roll call will be carried out by the Site Security Officer to account for all personnel on site.
- The Site Security Officer will inform the Site Supervisor/Construction Manager when all personnel have been accounted for. The Supervisor/Construction Manager will decide the next course of action, which be determined by the situation that exists at that time and will advise all personnel accordingly.

All personnel will be made aware of the evacuation procedure during site induction. The Fire Services Acts of 1981 and 2003 require the holding of fire safety evacuation drills at specified intervals and the keeping of records of such drills.

5.1.4 Spill Control Measures

Every effort will be made to prevent an environmental incident during the decommissioning phase of the project. Oil/fuel spillages are one of the main environmental risks that will exist on the Site which will require an emergency response procedure. The importance of a swift and effective response in the event of such an incident occurring cannot be over emphasised. The following steps provide the procedure to be followed in the event of such an incident:

- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident.
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill.
- If possible, cover or bund off any vulnerable areas where appropriate such as drains, watercourses or sensitive habitats.
- If possible, clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the ECoW immediately giving information on the location, type and extent of the spill so that they can take appropriate action.
- The ECoW will inspect the Site and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring.
- The ECoW will notify the appropriate regulatory body such as Clare County Council, and the Environmental Protection Agency (EPA), if deemed necessary.

The importance of a swift and effective response in the event of such an incident occurring cannot be over emphasised. Environmental incidents are not limited to just fuel spillages. Therefore, any environmental incident must be investigated in accordance with the following steps.

- The ECoW must be immediately notified.

- If necessary, the ECoW will inform the appropriate regulatory authority. The appropriate regulatory authority will depend on the nature of the incident.
- The details of the incident will be recorded on an Environmental Incident Form which will provide information such as the cause, extent, actions and remedial measures used following the incident. The form will also include any recommendations made to avoid reoccurrence of the incident.
- A record of all environmental incidents will be kept on file by the ECoW and the Main Contractor. These records will be made available to the relevant authorities such as Clare County Council, or the EPA if required.

The ECoW will be responsible for any corrective actions required as a result of the incident e.g. an investigative report, formulation of alternative works methodologies or environmental sampling, and will advise the Main Contractor as appropriate.

5.2 Contact the Emergency Services

5.2.1 Emergency Communications Procedure

In the event of requiring the assistance of the emergency services the following steps will be taken:

Stay calm. It is important to take a deep breath and not get excited. Any situation that requires 999/112 is, by definition, an emergency. The dispatcher or call-taker knows that and will try to move things along quickly, but under control.

Know the location of the emergency and the number you are calling from. This may be asked and answered a couple of times but do not get frustrated. Even though many emergency call centres have enhanced capabilities meaning they are able to see your location on the computer screen they are still required to confirm the information. If for some reason you are disconnected, at least emergency crews will know where to go and how to call you back.

Wait for the call-taker to ask questions, then answer clearly and calmly. If you are in danger of assault, the dispatcher or call-taker will still need you to answer quietly, mostly "yes" and "no" questions.

If you reach a recording, listen to what it says. If the recording says your call cannot be completed, hang up and try again. If the recording says all call takers are busy, WAIT. When the next call-taker or dispatcher is available to take the call, it will transfer you.

Let the call-taker guide the conversation. He or she is typing the information into a computer and may seem to be taking forever. There is a good chance, however, that emergency services are already being sent while you are still on the line.

Follow all directions. In some cases, the call-taker will give you directions. Listen carefully, follow each step exactly, and ask for clarification if you do not understand.

Keep your eyes open. You may be asked to describe victims, suspects, vehicles, or other parts of the scene.

Do not hang up the call until directed to do so by the call taker.

Due to the location of the Site, it may be necessary to liaise with the emergency services on the ground in terms of locating the Site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services. This should form part of the Site induction to make new personnel and sub-contractors aware of any such arrangement or requirement if applicable.

5.3 Contact Details

A list of emergency contacts is presented in Table 5-2. A copy of these contacts will be included in the Site Safety Manual and in the site offices and the various site welfare facilities.

Table 5-2 Emergency Contacts

Contact	Telephone no.
Emergency Services – Ambulance, Fire, Gardaí	999/112
Doctor – Miltown Malbay Centre	065 708 4494
Hospital – Clare General Hospital	065 682 4464
ESB Emergency Services	1800 372 999
Gas Networks Ireland Emergency	1800 20 50 50
Gardaí –Miltown Malbay	(065) 7084 2222
Health and Safety Co-ordinator - Health & Safety Services	TBC
Health and Safety Authority	0818 289 389
Inland Fisheries Ireland (IFI)	0818 347 424
Project Supervisor Construction Stage (PSCS): TBC	TBC
Project Supervisor Design Stage (PSDS): TBC	TBC
Client: Slieveacurry Ltd	021 7336034

5.4 Procedure for Personnel Tracking

All operatives on site without any exception will have to undergo a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.

In the event of a site operative becoming in an emergency situation where serious injury has occurred and hospitalisation has taken place, it will be the responsibility of the Site Manager or next in command if unavailable to contact the next of kin to inform them of the situation that exists.

5.5 Induction Checklist

Table 5-3 provides a list of items highlighted in this ERP which must be included or obtained during the mandatory site induction of all personnel that will work on the site. This will be updated throughout the various stages of the Proposed Project.

Table 5-3 Emergency Response Plan Items Applicable to the Site Induction Process

ERP Items to be included in Site Induction	Status
<p>All personnel will be made aware of the evacuation procedure during site induction.</p>	
<p>It may be necessary to liaise with and assist the emergency services on the ground in terms of locating the Site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services. This should form part of the site induction to make new personnel and sub-contractors aware of any such arrangement or requirement if applicable.</p>	
<p>All operatives on site without any exception will have undergone a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.</p>	

6. PROGRAMME OF WORKS

6.1 Decommissioning Schedule

The decommissioning phase will take approximately 3–6 months to complete from commencing the removal of turbines to the final reinstatement of the Proposed Wind Farm Site.

At this time, it is not possible to determine when decommissioning will take place. The phasing and scheduling of the main decommissioning task items are outlined in Figure 6-1 below.

Figure 6-1 Indicative Decommissioning Schedule

ID	Task Name	Task Description	Month 1-3	Month 3-6
1	Site Health and Safty			
2	Turbine Decommissioning	Disconnect Power Output		
3	Turbine & Met Mast Dismantling	Disassemble Turbine Components		
4	Turbine Removal	Tranpsort of all Turbine Componetns off Site		
5	Cable Removal	Remove Underground Cables from Ducting		
6	Turbine & Met Mast Foundations Backfill	Reinstate Foundation Areas by Covering with Soil Material		
7	Accommodation Areas Reinstatement	Reinstate Temporary Abnormal Load Entrance and any necessary Boundary Treatments		

7. **MITIGATION PROPOSALS**

All mitigation measures relating to the pre-commencement, construction and operational phases of the Proposed Project are set out in the various sections of the Environmental Impact Assessment Report (EIAR) and NIS prepared as part of the planning permission application to ACP.

This section of the Decommissioning Plan groups together all of the mitigation measures presented in the above documents. The Mitigation Measures are presented in Table 7-1.

By presenting the mitigation proposals in the below format, it is intended to provide an easy to audit list that can be reviewed and reported on during the decommissioning phase of the Proposed Project.

Table 7-1 Proposed Mitigation Measures

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
EIAR Chapter 4 Description of the Proposed Project					
Decommissioning Phase					
MM39	Decommissioning	EIAR Chapter 4 Appendix 4-6	A Decommissioning Plan has been prepared (Appendix 4-6). The Decommissioning Plan will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and will agree with the competent authority at that time. The potential for effects during the decommissioning phase of the Proposed Project has been fully assessed in the EIAR.		
MM40	Decommissioning	EIAR Chapter 4 Appendix 4-6	<ul style="list-style-type: none"> ➤ Upon decommissioning of the Proposed Project, the turbines and met mast will be removed from the Proposed Wind Farm Site in a similar manner to how they will be transported to the site originally in extended articulated trucks. All above ground turbine and mast components would be separated and removed off-site for recycling. The turbines will be disassembled with a similar model of crane that was used for their erection. The turbines will be removed from site using the same transport methodology adopted for delivery to site initially. The turbine materials will be transferred to a suitable recycling or recovery facility. ➤ On the dismantling of turbines and met mast, it is not intended to remove the concrete foundation from the ground. It is considered that its removal will be the least preferred options in terms of potential effects on the environment. Therefore, the foundations of the 9 no. turbine and met mast will be covered with soil material. If there is usable soil or overburden material on the Proposed Wind Farm Site after construction, this material will be used. Alternatively, where material is not readily available on site, soil will be sourced locally and imported to site on heavy good vehicles (HGVs). The imported soil will be spread and graded over the foundation using a tracked excavator and revegetation enhanced by spreading of an appropriate seed mix to assist in revegetation and accelerate the resumption of the natural drainage management that will have existed prior to any construction. ➤ The internal underground cabling within the Proposed Wind Farm Site, connecting the turbines and the meteorological mast to the proposed extension to the existing 		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>Slievecallan 110kV substation, will be pulled from the cable duct using a mechanical winch which will extract the cable and re-roll it on to a cable drum. This will be undertaken at each of the pull pits along the cabling route. The ground above original pulling pits will be excavated using a mechanical excavator and will be fully re-instated once the cables are removed.</p> <p>The proposed extension to the 110kV electricity substation will remain in place as it will be part of the Electricity Grid under the ownership and control of the ESB Networks and EirGrid.</p>		
MM41	Refuelling	EIAR Chapter 4, 8, 9 Appendix 4-5	<ul style="list-style-type: none"> ➤ Road-going vehicles will be refuelled off-site wherever possible. ➤ On-site refuelling of machinery will be carried out at dedicated refuelling locations using a mobile double-skinned fuel bowser. ➤ Heavy plant and machinery will be refuelled on-site by a fuel truck that will come to the site as required on a scheduled and organised basis. ➤ Other refuelling will be carried out using mobile double-skinned fuel bowser. ➤ The fuel bowser will be parked on a level area in an appropriately bounded area when not in use and only designated trained and competent operatives will be authorised to refuel plant on site. ➤ All refuelling will be carried out outside designated watercourse buffer zones. ➤ Only designated trained and competent operatives will be authorised to refuel plant on-site. ➤ Mobile measures such as drip trays and fuel absorbent mats will used during refuelling operations as required. <p>The following mitigation measures are proposed to avoid release of hydrocarbons at the site:</p> <ul style="list-style-type: none"> ➤ Wherever possible, vehicles will be refuelled off-site, particularly for regular road-going vehicles. 		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ All plant will be inspected and certified to ensure that they are leak free and in good working order prior to use at the Site. ➤ On-site refuelling of machinery will be carried out at designated refuelling areas at various locations throughout the Site. ➤ Heavy plant and machinery will be refuelled on-site by a fuel truck, with spill kits kept onboard, that will come to the Site as required on a scheduled and organised basis. ➤ Other refuelling will be carried out using mobile double skinned fuel bowser. The fuel bowser will be parked on a level area in the construction compound when not in use ➤ Only designated trained operatives will be authorised to refuel plant on-site; ➤ Refuelling or maintenance of machinery will not occur within the delineated hydrological buffer zones; ➤ Fuels stored on the Proposed Wind Farm Site will be minimised; ➤ Any diesel or fuel oils stored at the temporary construction compound will be bunded. The bund capacity will be sufficient to contain 110% of the storage tank's maximum capacity; and, ➤ An emergency plan to deal with accidental spillages will be contained within Section 6.1.4 of the CEMP. Spill kits will be available to deal with accidental spillages. 		
EIAR Chapter 5 Population and Human Health					
Decommissioning phase					

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM55	Decommissioning Phase	EIAR Chapter 4, Chapter 5 Appendix 4-6	<p>The wind turbines proposed as part of the Proposed Project are expected to have a lifespan of approximately 35 years. Following the end of their useful life, the wind turbines may be replaced with a new set of turbines, subject to planning permission being obtained, or the site may be decommissioned fully. The substation will remain in place as it will be under the ownership of ESB/EirGrid.</p> <p>➤ The works required during the decommissioning phase are described in Section 4.12 in Chapter 4 of the EIAR. Any impact and consequential effect that occurs during the decommissioning phase will be similar to that which occurs during the construction phase, however to a lesser extent and lesser duration, and the mitigation measures outlined above will be implemented during the decommissioning phase also. A Decommissioning Plan has been prepared as part of this EIAR and is included as Appendix 4-6. This Decommissioning Plan follows the most up to date NatureScot guidance. By its nature, the Decommissioning Plan is a working document and, in accordance with the NatureScot guidance, an updated Decommissioning Plan will be agreed with the local authorities three months prior to decommissioning the Proposed Project. The principles that will inform the final decommissioning plan are contained in the CEMP (see Appendix 4-5).</p>		
EIAR Chapter 6 Biodiversity					
Decommissioning Phase					
MM68	Decommissioning Phase	EIAR Chapter 6	<p>The same mitigation to prevent significant impacts on water quality and associated aquatic fauna and other terrestrial fauna during construction will be applicable to the decommissioning phase. It can be concluded that following the implementation of preventative mitigation, there is no potential for the decommissioning of the Proposed Project to result in significant effects on biodiversity.</p>		
EIAR Chapter 7 Birds					
Decommissioning Phase					

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM75	Birds	EIAR Chapter 7	During the decommissioning phase, disturbance limitation measures and monitoring will be as per the pre-construction phase and construction phase, respectively.		
EIAR Chapter 8 Land Soils & Geology					
Decommissioning Phase					
MM84	Decommissioning Phase	EIAR Chapter 8	<p>The potential impacts associated with decommissioning of the Proposed Project will be similar to those associated with construction but of reduced magnitude.</p> <p>Mitigation measures applied during decommissioning activities will be similar to those applied during construction where relevant.</p> <p>Mitigation measures to avoid contamination by accidental fuel leakage and compaction of soil by on-site plant will be implemented as per the construction phase mitigation measures.</p>		
EIAR Chapter 9 Hydrology and Hydrogeology					
Decommissioning Phase					
MM100	Decommissioning Phase	EIAR Chapter 9	The potential impacts associated with decommissioning of the Proposed Project will be similar to those associated with construction but of a reduced magnitude, due to the reduced scale of the proposed decommissioning works in comparison to construction phase works. Mitigation proposed in Line Items MM84 to MM98 of the CEMP (Appendix 4-5) will be implemented as appropriate.		
Chapter 10 Air Quality					
Decommissioning Phase					
MM106	Air Quality	EIAR Chapter 10: Air Quality	Any impact and consequential effect that occurs during the decommissioning phase are similar to that which occur during the construction phase, albeit of lesser impact. The mitigation measures prescribed for the construction phase of the Proposed Project will be implemented during the decommissioning phase thereby minimising any potential impacts.		
Chapter 11 Climate					

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase					
MM109	Decommissioning Phase	EIAR Chapter 11	Any impact and consequential effect that occurs during the decommissioning phase are similar to that which occur during the construction phase, albeit of lesser impact. The mitigation measures prescribed for the construction phase of the Proposed Project will be implemented during the decommissioning phase thereby minimising any potential impacts.		
EIAR Chapter 12 Noise Decommissioning Phase					
MM114	Decommissioning Noise & Vibration	EIAR Chapter 12	No specific mitigation measures are required for decommissioning. To ameliorate any potential noise impacts that may present during the decommissioning phase, a schedule of noise control measures has been formulated in accordance with best practice guidance.		
Chapter 15 Material Assets - Traffic Decommissioning					
MM125	Decommissioning Phase	EIAR Chapter 15 Appendix 4-5	In the event that the Proposed Project is decommissioned after the 35 years of operation, a decommissioning plan, will be prepared for agreement with the local authority, as described in Chapter 4 and Appendix 4-6 Decommissioning Plan. This plan will include a material recycling / disposal and traffic management plan will be prepared for agreement with the local authority prior to decommissioning, in accordance with Scottish Natural Heritage report (SNH) <i>Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms</i> (SNH, 2013).		

8. **MONITORING PROPOSALS**

All monitoring proposals relating to the pre-commencement, construction and operational phases of the Proposed Project were set out in various sections of the EIAR and NIS prepared as part of the planning permission application to ACP.

This section of the Decommissioning Plan groups together all of the monitoring proposals presented in the planning documentation. The monitoring proposals are presented in Table 8-1.

By presenting the monitoring proposals in the below format, it is intended to provide an easy to audit list that can be reviewed and reported on during the decommissioning phase of the Proposed Project.

Table 8-1 Proposed Monitoring Measures

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
Decommissioning Phase						
MX35	Decommissioning	Appendix 4-6	<p>As noted in the Scottish Natural Heritage report (SNH) <i>Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms</i> (SNH, 2013) reinstatement proposals for a wind farm are made approximately 30 years in advance, so within the lifespan of the wind farm, technological advances and preferred approaches to reinstatement are likely to change. According to the SNH guidance, it is therefore:</p> <p><i>“best practice not to limit options too far in advance of actual decommissioning but to maintain informed flexibility until close to the end-of-life of the wind farm”.</i></p> <p>In this regard, the Decommissioning Plan (DP) (Appendix 4-6) will be reviewed and updated prior to commencement of decommissioning works to take account of the relevant conditions of the planning permission and current health and safety standards at the time of decommissioning.</p>	End of Operational Life	As Required	Developer Appointed/ Contractor
MX36	Decommissioning	Appendix 4-6	<p>The ECoW will maintain responsibility for monitoring the decommissioning works and Contractors/Sub-contractors from an environmental perspective. The ECoW will act as the regulatory interface on environmental matters. The Site Manager will be responsible for reporting to and liaising with Clare County Council and other statutory bodies as required.</p>	End of Operational Life	As Required	Site Manager/ ECoW
MX37	Decommissioning	Appendix 4-6	<p>The Site Manager in consultation with the ECoW will be responsible for employing the services of a suitably qualified ecologist and any other suitably qualified professionals as required throughout the decommissioning works.</p>	End of Operational Life	As Required	Site Manager/ ECoW

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
MX38	Decommissioning	Appendix 4-6	Prior to decommissioning, a suitably qualified ecologist will complete an invasive species survey of the site to identify invasive species where any minor excavation will be required. If present in these areas, the ecologist will propose suitable management measures.	End of Operational Life	As Required	Project Ecologist
MX39	Health and Safety	Appendix 4-6	<ul style="list-style-type: none"> ➤ Report on site activities to include but not limited to information on accidents and incidents, disciplinary action taken and PPE compliance; ➤ Monitor the compliance of contractors and others and take corrective action where necessary; and <p>Notify the Authority and the client of non-compliance with any written directions issued.</p>	End of Operational Life	As Required	PSCS

9. COMPLIANCE AND REVIEW

9.1 Site inspections and Environmental Audits

Routine inspections of decommissioning activities will be carried out on a daily and weekly basis by the ECoW and the Site Supervisor/Construction Manager to ensure all controls to prevent environmental impacts, relevant to the decommissioning activities taking place at the time, are in place.

Environmental inspections will ensure that the works are undertaken in compliance with this Decommissioning Plan and all other planning application documents. Only suitably trained staff will undertake environmental site inspections.

9.2 Auditing

Environmental audits will be conducted at planned intervals to determine whether the Decommissioning Plan is being properly implemented and maintained. The results of environmental audits will be provided to project management personnel. In contrast to monitoring and inspection activities, audits are designed to shed light on the underlying causes of non-compliance and not merely detect the non-compliance itself. In addition, audits are the main means by which system and performance improvement opportunities may be identified. Environmental audits will be carried out by the ECoW on behalf of the appointed contractor. It is important that an impartial and objective approach is adopted.

Once the Proposed Project has been decommissioned and all identified infrastructure removed from the Site, a report of compliance with decommissioning works mitigation measures will be prepared.

9.3 Environmental Compliance

The following definitions shall apply in relation to the classification of Environmental Occurrences during decommissioning of the Proposed Project:

Environmental Near Miss: An occurrence which if not controlled or due to its nature could lead to an Environmental Incident.

Environmental Incident: Any occurrence which has potential, due to its scale and nature, to migrate from source and have an environmental impact beyond the Site.

Environmental Exceedance Event: An environmental exceedance event occurs when monitoring results indicate that limits for a particular environmental parameter (as indicated in the Environmental Monitoring Programme) has been exceeded.

An exceedance will immediately trigger an investigation into the reason for the exceedance occurring and the application of suitable mitigation where necessary.

Exceedance events can be closed out on achieving a monitoring result below the assigned limit for a particular environmental parameter.

Environmental Non-Compliance: Non-fulfilment of a requirement and includes any deviations from established procedures, programs and other arrangements related to the EMP.

9.4

Corrective Action Procedure

A corrective action is implemented to rectify an environmental problem on-site. Corrective actions will be implemented by the Site Supervisor/Construction Manager, as advised by the Site ECoW. Corrective actions may be required as a result of the following:

- > Environmental Audits.
- > Environmental Inspections and Reviews.
- > Environmental Monitoring.
- > Environmental Incidents; and,
- > Environmental Complaints.

A Corrective Action Notice will be used to communicate the details of the action required to the main contractor. A Corrective Action Notice is a form that describes the cause and effect of an environmental problem on site and the recommended corrective action that is required. The Corrective Action Notice, when completed, will include details of close out and follow up actions.

If an environmental problem occurs on site that requires immediate attention direct communications between the Site Supervisor/Construction Manager and the ECoW will be conducted. This in turn will be passed down to the Site staff involved. A Corrective Action Notice will be completed at a later date.

9.5

Decommissioning Plan Review

This Decommissioning Plan will be reviewed and updated prior to commencement of any decommissioning works. In accordance with the guidelines set out in the SNH Research and Guidance 2013 document pertaining to '*restoration and decommissioning of onshore wind farms*', further updates will be completed to the plan during decommissioning works to adapt to specific situations or site conditions which may be encountered and consequently need to be considered by the plan.

This report provides the environmental management framework to be adhered to during the decommissioning phase of the Proposed Project and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur.