
CONSTANT ENERGY LIMITED

**TIRAWLEY WIND FARM
CO. MAYO**

**CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN
(CEMP)**

**MANAGEMENT PLAN 6
DECOMMISSIONING PLAN**

April 2026

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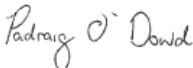



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TIRAWLEY WIND FARM, CO. MAYO

DECOMMISSIONING PLAN

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1 INTRODUCTION

This Decommissioning Plan has been prepared by Jennings O'Donovan & Partners Limited on behalf of Constant Energy Limited for the decommissioning of the proposed Tirawley Wind Farm development and relevant infrastructure which is hereafter referred to as the Development. This document is being prepared, alongside an Environmental Impact Assessment Report (EIAR), as part of an application for planning permission for the Proposed Development to An Coimisiún Pleanála.

Decommissioning of the Proposed Development will be scheduled to take place after the proposed 35-year lifespan of the Proposed Development.

This report provides the environmental management framework to be adhered to during the decommissioning phase of the Proposed Development 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.

As noted in the Scottish Natural Heritage report 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. Due to the efficiency of modern day turbines, it is estimated that their lifespan will be 35-years. The technological advances and preferred approaches to reinstatement are likely to change in the intervening decades.

In this regard, this Decommissioning Plan will be reviewed and updated for the written agreement of the Planning Authority prior to commencement of a decommissioning works. It will take account of the relevant conditions of the planning permission and current health and safety standards in accordance with the approach set out and the principles established in this document.

1.1 SCOPE OF THE DECOMMISSIONING PLAN

This plan for the decommissioning of the Proposed Development includes its connection to the national grid. Where the term 'site' is used in the Decommissioning Plan it refers to the site of the Proposed Development and all works associated with the Proposed Development including enabling works. 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 seven sections, as outlined below:

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

Section 2 outlines the Wind Farm Site and Proposed Development 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 onsite including the mechanisms for implementation. A waste management plan is also included in this section.

Section 4 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 5 sets out a programme for the timing of the works.

Section 6 consists of a summary table of all mitigation measures to be adhered to during the decommissioning-phase.

Section 7 outlines the proposals for reviewing compliance with the provisions of this report.

2 SITE AND PROJECT DETAILS

2.1 Site Location and Description

The Proposed Development is located ~14.5 km northwest of Ballina Town, ~5.2 km northwest of the village of Killala and ~4 km east of Ballycastle village in north Co. Mayo. The Wind Farm Site is located ~10.5 km east of the county border between Mayo and Sligo. The Wind Farm Site has a total area of ~108.06 ha. The Wind Farm Site is accessed via local public roads which branch off the R314 which joins Killala in the southeast to Ballycastle in the northwest. These local public roads serve numerous dwellings and associated farm buildings scattered in lands surrounding the Wind Farm Site.

Topography across the Wind Farm Site is variable, ranging from ~20 to 155 m OD (meters above Ordnance Datum). The northern and central areas of the Wind Farm Site are located on elevated ground. The highest elevations are found in the north of the Wind Farm Site, which is situated on the southeastern slopes of Knockboha Hill, which stands at an elevation of ~186 m OD. There are also several other local high points further to the south which range in elevation from ~108 to 137 m OD. The southern section of the Wind Farm Site is located on lower ground with topography sloping gently to the southeast towards Cloonaghmore Estuary and Killala Bay. A Site Location Map showing the Wind Farm Site boundary is appended as **Figure 2.1** and a map which comprises all elements of the Wind Farm Site is outlined as **Figure 2.2**.

The Wind Farm Site is located in a rural setting and housing density in the area is low. There are 266 houses within 2 km of the proposed turbines. The closest inhabited dwelling to a turbine not associated with the Proposed Development (H3) is located 554 m from the nearest turbine (AT08). The V117 turbine with a 135 m blade tip height (4 x 135 m = 540 m) maintains 540 m housing buffer. All residential dwellings located within 2 km of the proposed turbines are shown in **Figure 2.3**.

There is 1 no. disused vacant dwelling (H1) located c. 265 m southwest of AT12. This dwelling is under the control of the Developer and as part of the planning application, permission is sought for it to be converted and used as an operations building for the lifespan of the Proposed Development.

There is 1 no. dwelling (H2) located c. 321 m southwest from AT01. This property is under the control of the Developer and the owner is a financial beneficiary of the Proposed Development. The owner has confirmed that this property will remain unoccupied for the operational lifespan of the Proposed Development

A full description of the Proposed Development is provided in the EIAR **Chapter 2: Development Description**.

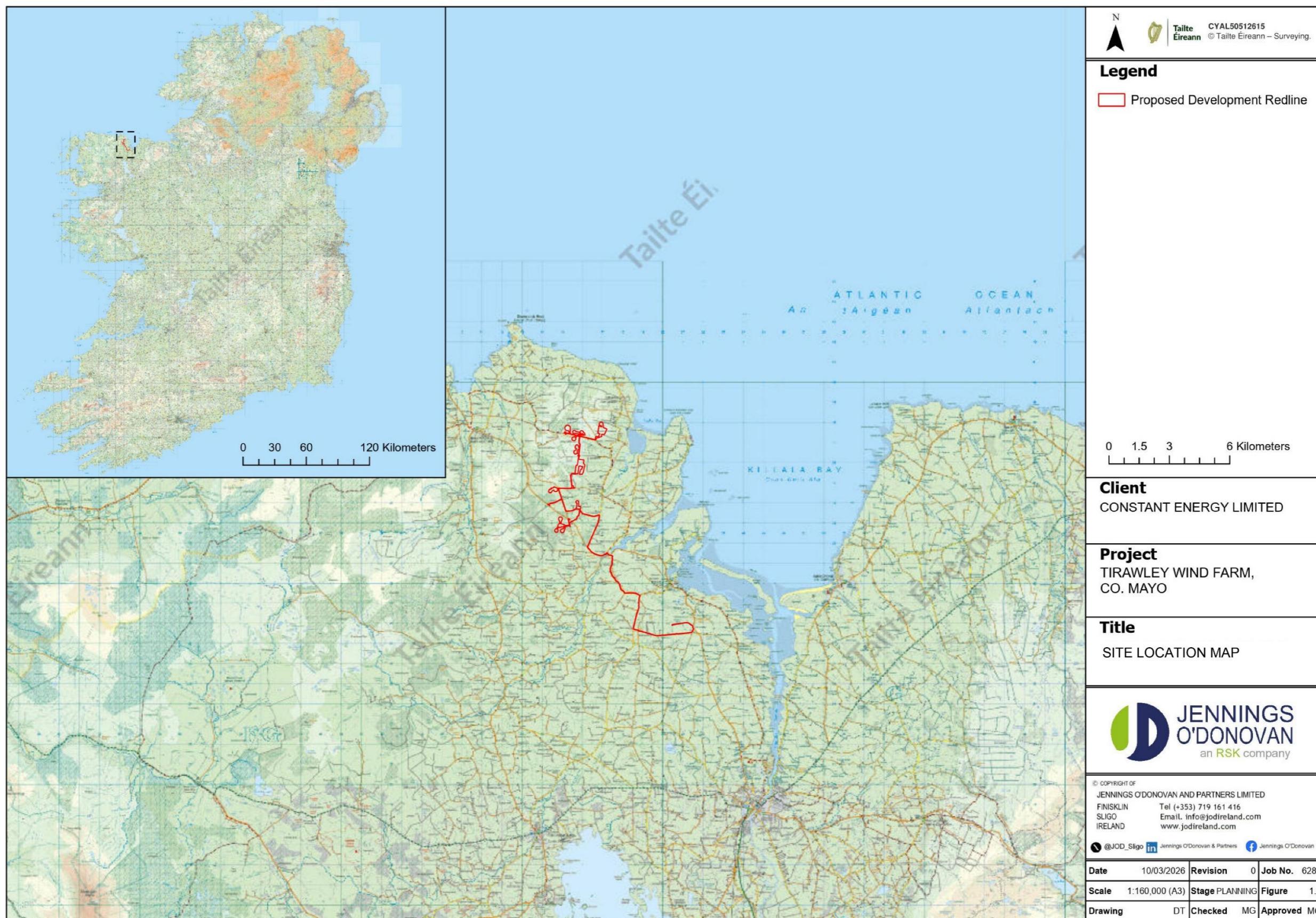


Figure 2.1: Wind Farm Site Location Map



Figure 2.2: Site Layout Map



Figure 2.3: Residential Dwellings within 2 km of the Wind Farm Site

2.2 DESCRIPTION OF THE DECOMMISSIONING

- Removal of 16 no. wind turbines and concrete plinths
- Removal of 1 no. permanent meteorological mast
- Removal of all associated underground electrical and communications cabling connecting the wind turbines to the Wind Farm Onsite Substation. Ducting is to remain in-situ
- Reinstatement of the operations building and associated structures to its original residential use
- Removal of Battery Energy Storage System (BESS), namely the containers and their concrete plinth foundations, and the compound in which they are housed.

All other elements of the Proposed Development will remain in-situ. The Site Access Tracks and associated drainage systems will serve ongoing forestry and agriculture activity in the area. All other hard surfaced areas will be allowed to revegetate naturally. Based on the experience of the project team monitoring operational wind farm sites throughout the country, the approach of allowing these areas to revegetate naturally has proven to be very successful.

Prior to wind turbine removal, due consideration will be given to any potential effects arising from these operations. Potential effects are likely to be similar to that of the construction phase, to an equal or lesser extent. Some of the potential issues could include:

- Potential disturbance by the presence of cranes, HGVs, and personnel on-site
- Time of year and timescale (to be outside sensitive periods).

Prior to the decommissioning work, a comprehensive plan will be drawn up and submitted to An Coimisiún Pleanála (or equivalent planning agency at the time) for written agreement. The plan will take account of the findings of the EIAR for the present project and the contemporary best practice at that time, to manage and control the component removal and ground reinstatement.

The key targets of the Decommissioning Plan 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) and associated planning documentation.
- Ensure decommissioning works and activities have minimal impact/disturbance to local landowners and the local community. This will relate to transport, particularly of material off site with noise and dust also impacting on receptors at time of decommissioning to a lesser extent.

- Ensure decommissioning works and activities have minimal impact on the natural environment. Disturbance to habitats will be avoided and the use of existing infrastructure and drainage will ensure silt does not enter waterways.
- Adopt a sustainable approach to decommissioning. This means comparing alternative methods for turbine disassembly and taking the approach with the least impact on the natural environment; and,
- Provide toolbox talks, environmental training and awareness of sensitive receptors and waste management within the Wind Farm Site for all project personnel.

2.3 TARGETS AND OBJECTIVES

This decommissioning plan has considered environmental issues as listed in **Section 3**.

The key 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) and associated planning documentation. A Schedule of Mitigation Measures has been included in **Appendix 18.1** of the EIAR.
- Ensure decommissioning works and activities have minimal impact/disturbance to local landowners and the local community. This will relate to transport, particularly of material offsite with noise and dust also impacting on receptors at time of decommissioning to a lesser extent.
- Ensure decommissioning works and activities have minimal impact on the natural environment. Disturbance to habitats will be avoided and the use of existing infrastructure and drainage will ensure silt does not enter waterways.
- Adopt a sustainable approach to decommissioning. This means comparing alternative methods for turbine disassembly and taking the approach with the least impact on the natural environment; and,
- Provide toolbox talks, environmental training and awareness of sensitive receptors and waste management within the Proposed Development for all project personnel.

The key site objectives are as follows:

- 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, in accordance with the **Management Plan 2 Water Quality Management Plan**. Similar mitigation measures to the construction phase will be implemented. Please **Section 3** for more details.
- Avoidance of vandalism.
- Keeping all watercourses free from obstruction and debris.

- Sustainable drainage system /drainage design principles will be maintained and monitored to ensure efficiency.
- Keep impact of decommissioning works to a minimum on the local environment, namely watercourses, and wildlife through the use of defences such as buffers and silt fences.
- 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.

Section 3 discusses the above in more detail.

2.4 DECOMMISSIONING METHODOLOGIES OVERVIEW

2.4.1 Introduction

An experienced main contractor will be appointed to undertake the decommissioning of the Proposed Development. The main contractors will comply with the mitigation measures of the Construction and Environmental Management Plan (CEMP) prepared for the construction phase. An overview of the decommissioning methodologies is provided below.

2.4.2 Decommissioning Methodology

The proposed decommissioning methodology is summarised under the following main headings:

- Wind turbines
- Turbine Foundations.
- Underground Cabling.

2.4.2.1 Wind Turbines

Prior to any works being undertaken on wind turbines, they will be disconnected from the grid by the site operator in conjunction with ESB Networks and EirGrid. The dismantling and removal of wind turbines 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. Hardstands will be constructed to the specifications at construction stage to facilitate crane disassembly works. Cranes will be brought back to site utilising the hard stand areas. The dismantling of turbines 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 turbine blades will be cut onsite and removed in articulated trucks, the details of which are assessed in **Chapter 17: Traffic & Transportation** of the EIAR which accompany this application.

The transport of disassembled turbines from the Wind Farm Site will be undertaken in accordance with a **Traffic Management Plan (Management Plan 7** of the CEMP). The Traffic Management Plan 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.

The 1 no. Met Masts will also be removed as its purpose will cease once the turbines have been dismantled and removed. In addition, the Met Masts are solely a requirement of the operational phase to satisfy EirGrid's requirements.

2.4.2.2 Turbine Foundations

On the dismantling of turbines, it is not intended to remove the concrete foundations from the ground. It is considered that their removal will be the least preferred options in terms of potential effects on the environment. Turbine plinths will be removed and hardcore from the hardstands will be used to cover the plinth area. The hardcore covering turbine foundations will be allowed to revegetate naturally.

2.4.2.3 Underground Cabling

The cabling onsite 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 joint bays/pull pits along the cable. The ground above original pulling pits/joint bays will be excavated to access the cable ducts using a mechanical excavator and will be fully reinstated once the cables are removed. Excavated material will be temporarily stored adjacent to the site of excavation at a height of less than 1 m and at 25 m distance from any watercourse.

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.

The Onsite Substation and associated grid connection will remain in place as it will be under the ownership of the ESB and will form a permanent part of the national electricity grid.

2.4.2.4 Transport Route Accommodation Works

Where necessary, turbine components will be cut at the hardstand locations onsite so as to fit on articulated trucks, therefore allowing the use of the civil construction delivery route for removal. There will be no need for additional temporary works on Access Tracks for the removal of turbines.

3 ENVIRONMENTAL CONTROLS

The following sections give an overview of the drainage design, dust and noise control measures, a **Waste Management and Resource Plan** for the site and the implementation of the environmental management procedures for the site. Based on the nature and extent of the decommissioning works these are the key onsite controls that are applicable at decommissioning. (Associated mitigation measures are described in **Section 6**).

3.1 SITE DRAINAGE

The site drainage features for this site during its construction and operation are outlined in the EIAR and **Management Plan No. 3 Surface Water Management Plan** which accompany this application. This document has been prepared on a preliminary (outline) basis and will be further developed and expanded following the appointment of the Contractors for the main construction/decommissioning works. Some items of this CEMP can only be finalised with appropriate input from the Contractors who will actually carry out the main construction/decommissioning works. This CEMP identifies, for the incoming Contractors, the key planning, environmental and contract document constraints that must be adhered to in order to deliver optimum environmental reassurance for the site. As stated in **Section 2.2**, the drainage system will serve ongoing activity on the area.

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. However, it should be noted that by the time decommissioning is undertaken after the planned 35-year lifespan of the Proposed Development, the areas within the Wind Farm Site will have revegetated substantially resulting in a drainage pattern that is similar to what existed prior to any construction. It is not anticipated that the decommissioning phase will interrupt this drainage regime in any way with the works proposed. As an additional measure, areas where freshly placed soil material as part of excavation works will be surrounded by silt fencing if deemed necessary until the area has naturally revegetated e.g., near joint bays.

3.2 REFUELLING; FUEL AND HAZARDOUS MATERIALS STORAGE

The plant and equipment used during decommissioning will require refuelling during the works. Appropriate management of fuels will be required to ensure that incidents relating to refuelling are avoided. The following mitigation measures, which are the same as those proposed for the construction phase, are proposed to avoid release of hydrocarbons at the Site:

- Where possible, all refuelling on site will be within the temporary compound within the dedicated re-fuelling area.
- All plant will be inspected and certified to ensure they are leak free and in good working order prior to use onsite.
- Site vehicles will be refuelled offsite where possible.
- Only essential refuelling will be completed outside of the dedicated re-fuelling area but not within 50 m of any watercourses. Onsite re-fuelling of plant and machinery will be carried out using a mobile double skinned fuel bowser:
 - The fuel bowser, a double-axel custom-built refuelling trailer will be re-filled off site, and will be towed around the site by a 4x4 jeep to where machinery is located;
 - The 4x4 jeep will also carry fuel absorbent material and pads in the event of any accidental spillages.
 - The fuel bowser will be parked on a level area in the construction compound when not in use and 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 all refuelling operations.
 - A non-permeable High-Density Polyethylene (HDPE) membrane will be provided beneath connection points to catch any residual oil during filling and disconnection. These membrane will be inspected and if there is any sign of oil contamination will be removed from the site by a specialist waste contractor.
- Onsite refuelling will be carried out by trained personnel only;
- A permit to fuel system will be put in place;
- Taps, nozzles or valves associated with refuelling equipment will be fitted with a lock system;
- All fuel storage areas will be bunded appropriately for the duration of the construction phase. Fuels will be stored in the Temporary Construction Compound and bunded to at least 110 % of the storage capacity of fuels to be stored. All bunded areas will be fitted with a storm drainage system and an appropriate oil interceptor. Ancillary equipment such as hoses, pipes will be contained within the bunded area;

- Fuel and oil stores including tanks and drums will be regularly inspected for leaks and signs of damage;
- The electrical control building (at the substation) will be bunded appropriately to 110% of the volume of oils that will be stored, and to prevent leakage of any associated chemicals to groundwater or surface water. The bunded area will be fitted with a storm drainage system and an appropriate oil interceptor;
- The plant used during construction will be regularly inspected for leaks and fitness for purpose; and,
- An emergency plan for the construction phase to deal with accidental spillages is included within the Construction and Environmental Management. Spill kits will be available to deal with any accidental spillage in and outside the re-fuelling area.

3.3 DUST CONTROL

Dust is unlikely to be generated in significant amounts from onsite activities during decommissioning. The extent of dust generation will depend on the type of activity undertaken, the proximity of activities to receptors and the nature of the dust, i.e., soil, and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather. Site traffic movements also have the potential to generate dust as they travel along the haul route.

Proposed measures, which are the same as those proposed for the construction phase, to control dust include:

- Approach roads and construction areas will be cleaned on a regular basis to prevent build-up of mud and prevent it from migrating around the Site and onto the public road network.
- Wheel wash facilities will be provided at 6 no. locations throughout the Wind Farm Site to prevent mud/dirt being transferred from the Wind Farm Site to the public road network. Wheel wash 1 will be located at the Temporary Construction Compound (site entrance 2) to the south of the Wind Farm Site. Wheel wash 2 will be located at site entrance 1. Wheel wash 3 will be located at site entrance 3. Wheel wash 4 will be located at site entrance 5. Wheel wash 5 will be located at the Temporary Construction Compound (site entrance 11) to the north of the Wind Farm Site. Wheel wash six will be located at site entrance 14 (spoil deposition area).
- The wheel wash facilities will be located outside the 50 m watercourse buffer zone
- Public roads along the Construction Haul Route will be inspected and cleaned daily when required. In the unlikely event that dirt/mud is identified on public roads, the roads will be cleaned. The wheel wash facility will be investigated and the problem fixed to prevent this from happening again.

- During periods of dry and windy weather, there is potential for dust to become friable and cause disturbance to nearby residences and users of the local road network. This requires wetting material and ensuring water is supplied at the correct levels for the duration of the work activity. The weather will be monitored so that the need for damping down activities can be predicted. Water bowsers will be available to spray work areas (Turbine Hardstand areas and GCR) and Construction Haul Route roads to suppress dust migration from the Wind Farm Site.
- Stockpiling of materials will be carried out in such a way as to minimise their exposure to wind. Stockpiles will be covered with geotextiles layering and damping down will be carried out when weather conditions require it.
- Earthworks and exposed areas/soil stockpiles will be re-vegetated to stabilise surfaces as soon as practicable.

3.4 NOISE CONTROL

The operation of plant and machinery, including site vehicles, is a source of potential impact that will require mitigation at all locations within the site. Proposed measures, which are the same as those proposed for the construction phase, to control noise include:

- Diesel generators will be enclosed in sound proofed containers to minimise the potential for noise impacts.
- Plant and machinery with low inherent potential for generation of noise and/or vibration will be selected. All plant and equipment to be used onsite will be modern equipment and will comply with the S.I. No. 359/1996 - European Communities (Construction Plant and Equipment) (Permissible Noise Levels) (Amendment) Regulations.
- Regular maintenance of plant will be carried out in order to minimise noise emissions. Particular attention will be paid to the lubrication of bearings and the integrity of silencers.
- All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the works.
- Compressors will be of the “sound reduced” 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.
- Machines, which are used intermittently, will be shut down during those periods when they are not in use.
- Training will be provided by the Site Manager to drivers to ensure smooth machinery operation/driving, and to minimise unnecessary noise generation.
- Local areas of the haul route will be condition monitored and maintained, if necessary.

3.5 INVASIVE SPECIES MANAGEMENT

Prior to decommissioning, a suitably qualified ecologist will complete an invasive species survey of the Wind Farm Site to identify invasive species where any excavation will be required. An Invasive Species Management Plan will be implemented if invasive species are identified.

3.6 TRAFFIC MANAGEMENT

A Traffic Management Plan will be prepared in advance of any decommissioning works. The traffic management arrangements for the removal of turbines although similar to those that will be implemented for construction materials delivery (to a lesser extent) as outlined in the EIAR, will be agreed in advance of decommissioning with the competent authority.

The Traffic Management Plan for the decommissioning phase will also include provision for the removal of underground cables from the underground ducts within the Wind Farm Site. Cables in public roads will be left in-situ as they will be the responsibility of the ESB.

3.7 WASTE MANAGEMENT AND RESOURCE PLAN

This waste management plan which outlines the best practice procedures during the decommissioning of the Proposed Development. The Waste Management and Resource Plan will outline 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.

3.7.1 Legislation

The Waste Management Act 1996 as amended 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 of the Tirawley Wind Farm development to ensure that all contractors hired to remove waste from the site 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 similar or 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). No demolition will take place at this site.

3.7.2 Waste Management Hierarchy

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

1. Prevention and Minimisation:

The primary aim of the Waste Management Plan will be to prevent and thereby reduce the amount of waste generated.

2. Reuse of Waste:

No material is likely to be reused onsite during the Decommissioning phase. Materials such as cabling will be reused offsite.

3. 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.

4. Disposal of Waste to Landfill

At all times during the implementation of the Waste Management and Resource Plan, disposal of waste to landfill will be considered only as a last resort.

3.7.3 Waste Arising from Decommissioning

The relevant components will be removed from 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 Development are outlined in **Table 3.1** below.

Table 3.1 Waste Types Arising during the Decommissioning Phase

Material Type	Example	EWC Code
Cables	Electrical wiring	17 04 11
Metals	Copper, aluminium, lead and iron	17 04 07
Fibreglass	Turbine blade component	10 11 03

Material Type	Example	EWC Code
Hydrocarbons	Oils and lubricants drained from the turbines	13 01 01,13 02 04

3.7.3.1 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.

3.7.3.2 Recycling

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

All wastes will be sorted and segregated onsite during the time of decommissioning. The anticipated volume of all waste material to be generated at the Tirawley Wind Farm development is low which provides the justification for adopting small containers as a method of waste storage.

3.7.3.3 Implementation

3.7.3.3.1 Roles and Responsibilities

The Ecological Clerk of Works will have responsibility for overseeing and the implementation of the objectives of the Decommissioning plan, ensuring that all hired waste contractors have the necessary authorisations and that the waste management hierarchy is adhered to. The person nominated will have sufficient authority so that they can ensure everyone working on the decommissioning adheres to the management plan.

3.7.3.3.2 Training

It is important for the Decommissioning Waste Manager to communicate effectively with colleagues in relation to the aims and objectives of the waste management plan. All employees working onsite during the decommissioning phase of the Proposed Development will be trained in materials management and thereby, will 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.
- Identify and liaise with waste contractors and waste facility operators.

3.7.3.3.3 Record Keeping

The Waste Management Plan will provide systems that will enable all arisings and movements of construction waste to be recorded. This system will enable the contractor to measure and record the quantity of waste being generated. The Waste Management Plan can then be adapted with changes that are seen through record keeping.

3.7.3.4 Waste Management and Resource Plan Conclusion

The Waste Management and Resource Plan will be properly adhered to by all staff involved in the Proposed Development and will be outlined within the induction process for all site personnel. Reuse of certain types of decommissioning wastes will cut down on the cost and requirement of raw materials at other sites therefore further minimising waste levels going to landfill. This Waste Management Plan outlines the main objectives that are to be adhered to.

3.8 ENVIRONMENTAL MANAGEMENT IMPLEMENTATION

3.8.1 Roles and Responsibilities

The Site Manager and/or Environmental Clerk of Works will be key members of the Contractors team.

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

A suitably qualified and experienced ecologist and any other suitably qualified and experienced professionals such as engineers and geotechnical experts will further advise the Ecological Clerk of Works and Site Manager. This will ensure there is no negative impact on the environment as a result of the decommissioning of the Proposed Development.

4 EMERGENCY RESPONSE PLAN

An Emergency Response Plan provides details of procedures to be adopted in the event of an emergency in terms of site health and safety and environmental protection.

4.1 EMERGENCY RESPONSE PROCEDURE

The site **Management Plan No. 1: Emergency Response Plan** includes details the response required and the responsibilities of all personnel in the event of an emergency. The Emergency Response Plan will require updating and submissions from the Contractor/Project Supervisor Decommissioning Stage (appointed to manage and co-ordinate health and safety matters during the construction stage) and sub-contractors as decommissioning progresses. Where sub-contractors are governed by their own emergency response procedure a bridging arrangement will be adopted to allow for inclusion of the sub-contractor's Emergency Response Plan within this document.

4.1.1 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 4.1**. In a situation where the Site Supervisor/ Construction Manager is to coordinate the emergency response, the responsibility will be transferred to the next person in the chain of command outlined in **Figure 4.1**. This will be updated throughout the various stages of the Proposed Development.

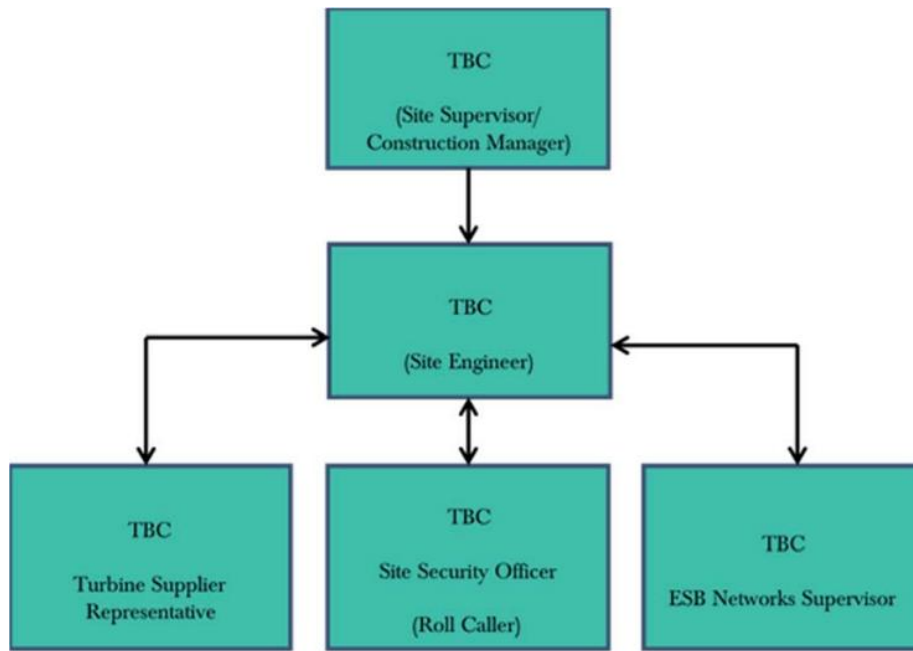


Figure 4.1 Emergency Response Procedure Chain of Command

4.1.2 Initial Steps

The following hazards have been identified as being potential situations that may require an emergency response in the event of an occurrence.

Table 4.1 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 onsite; 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 such as the hazards outlined in **Table 4.1** 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, who have been injured or are at risk of injury.
- Where necessary, sound the emergency siren/foghorn that activates an emergency evacuation on the site. 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 of the turbines and substation should proceed, without exception. The site evacuation procedure is outlined in **Section 4.1.3**.
- Make safe the area if possible and ensure that 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 4.2** 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 are provided in **Section 4.3**.
- Contact the next of kin of any injured personnel where appropriate.

4.1.3 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 Site 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.

4.1.4 Excessive Peat Movement

No excessive excavation works are proposed for the decommissioning phase. In the unlikely event of excessive peat movement or continuing peat movement recorded at a monitoring location, or identified at any location within the Wind Farm Site, but no apparent signs of distress to the peat (e.g., cracking, surface rippling) (not as a result of the decommissioning of the Wind Farm) then the following shall be carried out:

1. All decommissioning activities shall cease within the affected area.
2. Increased monitoring at the location shall be carried out. The area will be monitored, as appropriate, until such time as movements have ceased.
3. Re-commencement of limited construction activity will only start following a cessation of movement and the completion of a geotechnical risk assessment by a geotechnical engineer.
4. Such detailed monitoring and awareness will further ensure that the potential for a peat slide is absolutely minimised as actions arising from monitoring will reduce the significance of the possible negative effects.

4.1.5 Onset of Peat Slide

Neither the site activities nor the site characteristics are conducive to a peat slide arising as a result of decommissioning. In the highly unlikely event of an onset or actual detachment of peat then the following shall be carried out:

1. On alert of a peat slide incident, all activities will cease and all available resources will be diverted to assist in the required mitigation procedures.
2. For localised peat slides that do not represent a risk to a watercourse and have essentially come to rest the area will be stabilised initially by rock infill, if required. The failed area and surrounding area will then be assessed by the geotechnical engineer and stabilisation procedures implemented. The area will be monitored, as appropriate, until such time as movements have ceased.

4.1.6 Spill Control Measures

Every effort will be made to prevent an environmental incident during the decommissioning phase of the Proposed Development. Oil/fuel spillages if arising, are likely to be small and localised. The importance of a swift and effective response in the event of a spill is important. 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 necessary, cover or bund off any vulnerable areas where appropriate such as drains, watercourses or sensitive habitats.
- Clean up as much as possible using the spill control materials.
- Contain any used spill control material. Dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the Ecological Clerk of Works immediately giving information on the location, type and extent of the spill so that they can take appropriate action.
- The Ecological Clerk of Works 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 Ecological Clerk of Works will notify the appropriate regulatory body such as Mayo County Council, and the Environmental Protection Agency, if deemed necessary.

4.1.7 Environmental Investigation

Any environmental incident must be investigated in accordance with the following steps.

- The Ecological Clerk of Works will be immediately notified.
- If necessary, the Ecological Clerk of Works will inform the appropriate regulatory authority. The 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.
- If the incident has impacted on a sensitive receptor such as an archaeological feature the Ecological Clerk of Works will halt work and will liaise with the Project Archaeologist.
- A record of all environmental incidents will be kept on file by the Ecological Clerk of Works and the Main Contractor. These records will be made available to the relevant authorities such as Mayo County Council, Environmental Protection Agency if required.

The Ecological Clerk of Works 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.

4.2 CONTACT THE EMERGENCY SERVICES

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

Ring 999 or 112.

Clearly state the situation and the location.

Await further instructions from Emergency Services.

Table 4.2 Emergency Contacts

Contact	Telephone no.
Client: Constant Energy Limited	01 6698565
Doctor – Ballina Medical Centre	096 22868
Emergency Services – Ambulance, Fire, Gardaí	999/112
ESB Emergency Services	1850 372 999
Hospital – Ballina District Hospital	096 21166
Gas Networks Ireland Emergency	1850 20 50 50
Gardaí – Killala Garda Station	096 32111
Health and Safety Co-ordinator - Health & Safety Services	TBC
Health and Safety Authority	1890 289 389
Inland Fisheries Ireland (IFI)	1890 347 424
Project Supervisor Construction Stage (PSCS): TBC	TBC
Project Supervisor Design Stage (PSDS)*: Jennings O'Donovan & Partners Limited	071 9161416

* oversees the coordination of the design with the design team, architects engineers etc.

5 PROGRAMME OF WORKS

5.1 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 site.

The decommissioning of the Proposed Development will take place after the 35-year operational period of the planning permission period has elapsed.

The phasing and scheduling of the main decommissioning task items are outlined in **Figure 5.1** below, where the 1st January has been shown as an indicative start date for decommissioning to commence.

ID	Task Name	Task Description	Q1			Q2			Q3			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	Site Health and Safety		[Blue bar spanning Jan to Jun]									
2	Turbine Decommissioning	Disconnect Power Output	[Blue bar in Jan]									
3	Turbine and Met Mast Dismantling	Disassemble turbine components and met mast	[Blue bar spanning Feb to May]									
4	Turbine Removal	Transport of all turbine components off site	[Blue bar spanning Mar to Jun]									
5	Cable Removal	Remove underground cables form ducting	[Blue bar in Mar]									
6	Turbine Foundations Backfill	Reinstate foundation areas by covering with soil material	[Blue bar in Jun]									

Figure 5.1 Indicative Decommissioning Schedule

6 MITIGATION PROPOSALS

The decommissioning Mitigation Measures are presented in the following pages.

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 Development.

Table 6.1 Mitigation Measures

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
MM1	EIAR Chapter 2 Development Description	Prior to the decommissioning work, a comprehensive plan will be drawn up that takes account of the findings of this EIAR and the contemporary best practice at that time, to manage and control the component removal and ground reinstatement.		
MM2	Decommissioning Plan Section 3	A suitably qualified and experienced ecologist and any other suitably qualified and experienced professionals such as engineers and geotechnical experts will further advise the Ecological Clerk of Works and Site Manager on works and mitigation measures associated with the Decommissioning phase. This will ensure there is no negative impact on the environment as a result of the decommissioning of the Proposed Development.		
MM3	Decommissioning Plan Section 3	Prior to decommissioning, a suitably qualified (CIEEM accredited) ecologist will complete an invasive species survey of the material proposed for turbine foundation backfilling. The invasive species survey will also be undertaken along the cable route to identify invasive species at joint bay locations where excavation to expose the cabling for removal will be required.		
MM4	Decommissioning Plan Section 2 EIAR Chapter 6 Biodiversity	The approach proposed for decommissioning is one of minimal intervention. <ul style="list-style-type: none"> • Removal of 16 No. wind turbines and concrete plinths. • Removal of 1 no. permanent meteorological masts. • Removal of all associated underground electrical and communications cabling connecting the wind turbines to the Wind Farm substation. Ducting is remaining in-situ. 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<p>All other elements if the Proposed Development will remain in-situ. The Site Access Tracks and associated drainage systems will serve ongoing forestry and agricultural activity in the area. All other hard surfaced areas will be allowed to revegetate naturally has proven to be very successful.</p> <p>Cranes of similar size to those used for construction will disassemble each turbine using the same crane hardstands. The towers, blades and all above ground components will then be removed from site and reused, recycled, or disposed of in a suitably licenced facility. (The financial costs of decommissioning, at current material values, will be more than met by the recycling value of turbine components).</p> <p>Turbines will be cut onsite so as to fit on articulated trucks, therefore allowing the use of the civil construction delivery route for removal. There will be no need to reinstate the bottomless bridge culverts.</p> <p>Potential impacts will be similar to that of the construction phase, albeit to a lesser extent.</p>		
MM5	EIAR Chapter 2 Development Description Decommissioning Plan Section 3	The following mitigation measures are proposed to avoid release of hydrocarbons at the Wind Farm Site: <ul style="list-style-type: none"> • Road-going vehicles will be refuelled offsite wherever possible. • Onsite refuelling will be carried out at designated refuelling area at the Wind Farm Site. Machinery such as cranes will be refuelled directly by a fuel truck that will come to site as required. 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<ul style="list-style-type: none"> • Only designated trained and competent operatives will be authorised to refuel plant onsite. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations. • Fuel volumes stored onsite will be minimised. The fuel storage areas will be bunded to 110% of the storage volume. • The plant used will be regularly inspected for leaks and fitness for purpose. • An emergency plan for the decommissioning phase to deal with accidental spillages will be developed. Spill kits will be available to deal with an accidental spillage in and outside the refuelling area. <p>A programme for the regular inspection of plant and equipment for leaks and fitness for purpose will be developed at the outset of the decommissioning phase.</p> <ul style="list-style-type: none"> • Vehicles will undergo a visual inspection prior to being permitted to drive onto the proposed site or progress beyond the Contractors' yard. Vehicles will also be in good working order. • The Contractors and Ecological Clerk of Works will retain a record of all inspections/findings of Environmental Clerks within Section 4 of the main CEMP document. All records will be made available for discussion during meetings. 		
MM6	EIAR Chapter 10 Air and Climate	<p>Proposed measures to control dust, the same as those proposed for the construction phase, include:</p> <ul style="list-style-type: none"> • Approach roads and construction areas will be cleaned on a regular 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
	DP Section 3	<p>basis to prevent build-up of mud and prevent it from migrating around the Wind Farm Site and onto the public road network.</p> <ul style="list-style-type: none"> • Wheel wash facilities will be provided at 6 no. locations throughout the Wind Farm Site to prevent mud/dirt being transferred from the Site to the public road network. Wheel wash 1 will be located at site entrance 2. Wheel wash 2 will be located at the southern temporary site compound (site entrance 4). Wheel wash 3 will be located at site entrance 5. Wheel wash 4 will be located at site entrance 8. Wheel wash 5 will be located at the northern temporary site compound (site entrance 16). Wheel wash six will be located at site entrance 13 (spoil deposition area). • Public roads along the Construction Haul Route will be inspected daily and cleaned when required. In the unlikely event that dirt/mud is identified on public roads, the roads will be cleaned. The wheel wash facility will be investigated and the problem fixed to prevent this from happening again. • During periods of dry and windy weather, there is potential for dust to become friable and cause nuisance to nearby residences and users of the local road network. This requires wetting material and ensuring water is supplied at the correct levels for the duration of the work activity. The weather will be monitored so that the need for damping down activities can be predicted. Water bowsers will be available to spray work areas (wind turbine area and grid connection route) and haul roads to suppress dust migration from the Wind Farm Site. 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<ul style="list-style-type: none"> • Vehicles delivering materials to the Wind Farm Site will be covered appropriately when transporting materials that could result in dust, e.g., crushed rock or sand. • Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the Contractor by ensuring that emissions from vehicles are minimised through regular servicing of machinery. • All machinery when not in use will be turned off. • Ready-mix concrete will be delivered to the Wind Farm Site and no batching of concrete will take place on the Site. Only washing out of chutes will take place on Site and this will be undertaken at a designated concrete washout facility at the contractor's Temporary Construction Compound. The concrete wash water will be disposed of at a license facility. • Speed restrictions of 15 km/h on Site Access Tracks will be implemented to reduce the likelihood of dust becoming airborne. Consideration will be given to how onsite speed limits are policed by the Contractor and referred to in the toolbox talks. • Stockpiling of materials will be carried out in such a way as to minimise their exposure to wind. Stockpiles will be covered with geotextiles layering and damping down will be carried out when weather conditions require it. • Earthworks and exposed areas/soil stockpiles will be re-vegetated to stabilise surfaces as soon as practicable. 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<ul style="list-style-type: none"> An independent, qualified Geotechnical Engineer will be contracted for the detailed design stage of the project and geotechnical services and will be retained throughout the construction phase, including monitoring and supervision of construction activities on a regular basis. The methodology statement will be signed off by a suitably qualified Geotechnical Engineer. <p>A complaints procedure will be implemented on the Wind Farm Site where complaints will be reported, logged and appropriate action taken.</p>		
MM7	EIAR Chapter 11 Noise Decommissioning Plan Section 3	<p>Proposed measures to control noise, the same as those proposed for the construction phase, include:</p> <ul style="list-style-type: none"> General guidance for controlling construction noise through the use of good practice given in BS 5228 will be followed. Construction and Decommissioning of the Proposed Development shall be limited to working times given and any controls incorporated in any planning permission. Any legislation, guidance or best practice relevant at the time of decommissioning will be complied with. <p>During the Decommissioning phase of the Proposed Development, noise levels are likely be no more than predicted in Chapter 11 Noise, Table 11.14 of the EIAR, however, it is envisaged that decommissioning will be of shorter duration. Any legislation, guidance or best practice relevant at the time of decommissioning will be complied with. Construction and decommissioning is a temporary day time activity.</p>		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
MM8	EIAR Chapter 17 Traffic and Transportation Decommissioning Plan Section 3	<ul style="list-style-type: none"> Prior to the decommissioning work, a comprehensive plan will be drawn up and submitted to the relevant planning authority for written agreement. The plan will take account of the findings of this EIAR and the contemporary best practice at that time, to manage and control the component removal and ground reinstatement. If these alternatives are not viable then the process equipment would be decommissioned; all plant, machinery and equipment will be emptied and dismantled to be sold or recycled or, where these are not possible, disposed of through a licensed waste contractor. If required, all machinery will be cleaned prior to removal and all necessary measures implemented to prevent the release of contaminants. All waste will be removed from the facility and recycled wherever possible; disposal operations will be controlled by licensed waste contractors. The buildings and infrastructure would be retained and repurposed. 		
MM9	Decommissioning Plan Section 3	Waste Management is detailed in Section 3.7 of the Decommissioning Plan. A Waste Management Plan detailing the best practice procedures during the decommissioning of the Development will be prepared. The Waste Management Plan will outline 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.		
MM10	Decommissioning Plan Section 3	Ecological Clerk of Works will maintain responsibility for monitoring the decommissioning works and Contractors/Sub-contractors from an environmental perspective. The Ecological Clerk of Works will act as the		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		regulatory interface on environmental matters. The Site Manager will be responsible for reporting to and liaising with Mayo County Council and other statutory bodies as required.		
MM11	EIAR Chapter 6 Biodiversity	<p>The following elements are included in the decommissioning phase:</p> <ul style="list-style-type: none"> Removal of 16 no. wind turbines and concrete plinths Removal of 1 no. permanent meteorological mast Removal of all associated underground electrical and communications cabling connecting the wind turbines to the Wind Farm Onsite Substation. Ducting is to remain in-situ Reinstatement of the operations building and associated structures to its original residential use Removal of Battery Energy Storage System (BESS), namely the containers and their concrete plinth foundations, and the compound in which they are housed. <p>All other elements of the Proposed Development will remain in-situ. The Site Access Tracks and associated drainage systems will serve ongoing forestry and agriculture activity in the area. All other hard surfaced areas will be allowed to revegetate naturally. Based on the experience of the project team monitoring operational wind farm sites throughout the country, the approach of allowing these areas to revegetate naturally has proven to be very successful.</p>		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<p>Prior to wind turbine removal, due consideration will be given to any potential effects arising from these operations. Potential effects are likely to be similar to that of the construction phase, to an equal or lesser extent. Some of the potential issues could include:</p> <p>Potential disturbance by the presence of cranes, HGVs, and personnel on-site</p> <p>Time of year and timescale (to be outside sensitive periods).</p> <p>Prior to the decommissioning work, a comprehensive plan will be drawn up and submitted to An Coimisiún Pleanála (or equivalent planning agency at the time) for written agreement. The plan will take account of the findings of the EIAR for the present project and the contemporary best practice at that time, to manage and control the component removal and ground reinstatement.</p> <p>The key targets of the Decommissioning Plan are as follows:</p> <p>Ensure decommissioning works and activities are completed in accordance with mitigation and best practice approach presented in the accompanying Environmental Impact Assessment Report (EIAR) and associated planning documentation.</p> <p>Ensure decommissioning works and activities have minimal impact/disturbance to local landowners and the local community. This will relate to transport, particularly of material off site with noise and dust also impacting on receptors at time of decommissioning to a lesser extent.</p>		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<p>Ensure decommissioning works and activities have minimal impact on the natural environment. Disturbance to habitats will be avoided and the use of existing infrastructure and drainage will ensure silt does not enter waterways.</p> <p>Adopt a sustainable approach to decommissioning. This means comparing alternative methods for turbine disassembly and taking the approach with the least impact on the natural environment; and,</p> <p>Provide toolbox talks, environmental training and awareness of sensitive receptors and waste management within the Wind Farm Site for all project personnel.</p>		
MM12	EIAR Chapter 7 Ornithology	As the decommissioning works will involve works similar to those involved at construction stage, these could result in similar effects on birds. Hence, the mitigation that will be undertaken during construction will also be applied during the decommissioning phase (taking into account changes in bird populations and distributions that may have occurred locally during the operational life of the Proposed Development).		
MM13	EIAR Chapter 8 Soils and Geology	<ul style="list-style-type: none"> Following the permitted lifespan of the wind farm, decommissioning of the infrastructure will occur or the site may be repowered with more modern turbines, subject to a separate planning application. All physical infrastructure (turbines, substation, mast etc.) will be removed, re-used or recycled as appropriate or upgraded if the site is to be repowered. Where possible, redundant Site Access Tracks, turbine bases and 		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		<p>hardstand areas will be reinstated. Some of the Site Access Tracks and hardstanding areas, if not required during operation, will be reinstated. Areas of excess soil and rock will be reused in order to match the surrounding land as near as possible. Drainage and slopes will be restored as close to the original ground as possible if it is geotechnically and environmentally beneficial to do so.</p> <ul style="list-style-type: none"> After decommissioning of the wind farm, all Site Access Tracks and areas of hardstanding will be returned to as close to their natural state as possible, again if it is geotechnically and environmentally feasible. 		
MM14	EIAR Chapter 9 Hydrology and Hydrogeology	Mitigation measures to avoid contamination by accidental fuel leakage and compaction of soil by onsite plant will be implemented as per the construction phase mitigation measures.		
MM15	EIAR Chapter 12 Landscape and Visual Amenity	The decommissioning phase will see a similar nature of effects to the construction stage due to the movement of heavy machinery within the Wind Farm Site and to and from the Wind Farm Site removing turbine components. However, such effects will be temporary in duration and decreasing in scale as turbines are removed from view and the landscape is substantially reinstated to former uses.		
MM16	EIAR Chapter 14 Cultural Heritage	No direct impacts on known elements of the cultural heritage resource are predicted during the decommissioning phase as any recorded Cultural Heritage assets located within the footprint, or close environs of the Proposed Development will be resolved by mitigation at construction phase.		

Ref. No.	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase				
		Any previously unrecorded archaeological remains that could potentially be identified during the site investigations will either be preserved by avoidance within the Site or preserved by record (excavation).		

7 COMPLIANCE AND REVIEW

7.1 SITE INSPECTIONS AND ENVIRONMENTAL AUDITS

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

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. These staff will have undergone third level educational training and will have experience in a similar role.

7.2 AUDITING

An Environmental audit will first be carried out prior to the decommissioning phase of the development to ensure the implementation of mitigation measures. Further environmental audits will be carried on a monthly basis during the construction phase of the Proposed Development and again after the decommissioning of the wind turbines.

Environmental audits will be carried out by the Ecological Clerk of Works. An impartial and objective approach will be taken. Environmental audits will be conducted at monthly to determine to determine whether the Decommissioning Plan is being properly implemented and maintained. The results of environmental audits will be provided to the contractor.

An audit of compliance with the decommissioning mitigation measures will be completed by the Ecological Clerk of Works during the decommissioning phase of the Proposed Development. The findings of each audit will be documented by the Ecological Clerk of Works in an audit report within the Decommissioning Plan for the site. The audit report will be made available to Mayo County Council on request.

7.3 ENVIRONMENTAL COMPLIANCE

The following definitions will apply in relation to the classification of Environmental Occurrences during decommissioning of the proposed wind farm development:

- **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 immediate area of the incident.
- **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.

Any of these events will immediately trigger an investigation into the reason for the incident 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 e.g. 25 mg/L total suspended solids in waters (Inland Fisheries Ireland, 2016).

7.4 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 Environmental Clerk of Works. Corrective actions may be required as a result of the following:

- Environmental Audits
- Environmental Inspections and Reviews
- Environmental Monitoring
- Environmental Incidents
- 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 onsite 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 Ecological Clerk of Works 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.

7.5 DECOMMISSIONING PLAN REVIEW

This Decommissioning Plan will be reviewed and confirmed prior to commencement of decommissioning works. Further details will be added to the plan during decommissioning works to adapt to specific situations or site conditions that are encountered that need to be considered by the Plan.