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TABLES

Making Sustainability Happen

Acronyms and Abbreviations

ACP	An Coimisiún Pleanála
AI	Artificial Intelligence
AIL	Abnormal Indivisible Load
AM	Amplitude Modulation
BESS	Battery Energy Storage System
BH	Borehole
BSMP	Battery Safety Management Plan
CC	County Council
CEMP	Construction Environmental Management Plan
CIRIA	Construction Industry Research and Information Association
CTMP	Construction Traffic Management Plan
DAFM	Department of Agriculture, Food and the Marine
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMS	Environmental Management System
EPA	Environmental Protection Agency
EQS	Environmental Quality Standards
ERP	Emergency Response Plan
ESB	Electricity Supply Board
EU	European Union
GCL	Geosynthetic Clay Liner
GCR	Grid Connection Route
GNSS	Global Navigation Satellite System
GPR	Ground Penetrating Radar
GWDTE	Groundwater Dependent Terrestrial Ecosystem
HDV	Heavy Duty Vehicle
HMP	Habitat and Species Management Plan
HSA	Health and Safety Authority
IAA	Irish Aviation Authority
IAQM	Institute of Air Quality Management
IEF	Important Ecological Feature
ILP	Institution of Lighting Professionals
ISO	International Organization for Standardization

kV	Kilovolt
MCC	Mayo County Council
MM	Mitigation Measure
MX	Monitoring Measure
NCMP	Noise Complaint Monitoring Programme
NIS	Natura Impact Statement
NML	Noise Measurement Location
NPWS	National Parks and Wildlife Service
OEL	Overhead Electricity Line
PPE	Personal Protective Equipment
PRP	Peatland Restoration Plan
PSCS	Project Supervisor for the Construction Stage
PWS	Private Water Supply
QI	Qualifying Interest
SCADA	Supervisory Control and Data Acquisition
SPA	Special Protection Area
SAC	Special Area of Conservation
SuDS	Sustainable Drainage Systems
TDR	Turbine Delivery Route
WEI	Wind Energy Ireland
WQMP	Water Quality Monitoring Plan

17.0 SCHEDULE OF MITIGATION MEASURES INTRODUCTION

Background

17.1 This chapter provides a consolidated Schedule of Mitigation Measures to clearly identify the mitigation measures which will be implemented as identified within the technical assessments throughout the EIAR. The provision of this information as a compendium within a separate section of the EIAR is in accordance with Section 3.8.4 of the Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

17.2 The EIAR was submitted as part of the planning application for the Proposed Development, which is fully described in **Chapter 2** of this EIAR, with defined terms listed in **Chapter 1**.

17.3 The design of the Proposed Development has been progressed with continual input from the environmental specialists identified in **Chapter 1** of this EIAR, which has resulted in embedded mitigation measures in the proposal from the outset. The layout of the Proposed Project has been designed to minimise the potential environmental effects of the wind turbines on the Main Wind Farm Development Site and the surrounding area. The construction footprint has been kept to the minimum necessary to avoid effects on existing land uses insofar as possible. Other measures adopted included the safeguarding of residential buffer distances from wind turbines of greater than 740 m and avoiding sensitive areas of peat, soils and the water environment, ensuring essential infrastructure is outside ecologically sensitive areas and minimising the number of watercourses crossing points. The construction footprint of the Proposed Development has avoided the Protection Zone of the Crannog (MA025-004) which is located c. 0.23 km to the northeast of proposed Turbine 11.

17.4 The schedule of mitigation measures set out in this chapter represent the additional environmental mitigation commitments relied upon in the assessment of the Proposed Project in this EIAR. The measures outlined herein will be implemented through a suite of management plans, procedures and controls.

17.5 As set out in **Chapter 1** of this EIAR, the project is a Strategic Infrastructure Development under relevant planning legislation, and the planning application is therefore being made to An Coimisiún Pleanála.

Statement of Authority

17.6 This chapter of the EIAR was prepared and reviewed by the following individuals in SLR Consulting:

- The chapter was prepared by Eoin Greevy, BSc, MSc. Eoin is a Graduate Planner at SLR Consulting with experience supporting renewable energy and infrastructure projects across Ireland.
- The chapter was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 19 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects.
- The chapter has also been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.

Purpose of this Chapter

17.7 This chapter summarises the all of the mitigation measures outlined within the technical chapters of Volume 2 of the EIAR, which are intended to fulfil the requirements of Article 8(a)(4) of the Environmental Impact Assessment (EIA) Directive 2014/52/EU:

'...Member States shall ensure that the features of the project and/or measures envisaged to avoid, prevent or reduce and, if possible, offset significant adverse effects on the environment are implemented by the developer...'

17.8 The aim of this chapter is to assist An Coimisiún Pleanála in its decision-making role and in identifying any necessary planning conditions. For this reason, and as recommended in the Environmental Protection Agency (EPA) (2022) Guidelines referred to above, the schedule of relevant measures is specific and does not elaborate on the reasoning or expected effectiveness of those measures, which has already been carried out within the main body of the EIAR.

17.9 The principal mechanism for delivery of construction-phase mitigation measures identified is the Construction Environmental Management Plan (CEMP). The CEMP (**Technical Appendix 2-1** of this EIAR) provides the detailed framework for environmental management during construction and sets out the principles, procedures and processes by which mitigation measures are to be implemented on site.

17.10 Accordingly, all mitigation measures in **Table 17-1** that apply to the construction phase of the Proposed Project will be implemented and delivered through the CEMP. The CEMP translates the mitigation commitments contained in this chapter into site-specific controls, including defined roles and responsibilities, management measures, monitoring and reporting arrangements, and corrective actions. Subject to the grant of consent by An Coimisiún Pleanála, the CEMP will be reinforced and, if required, supplemented with additional measures as identified by any relevant planning conditions and detailed site experience. It will remain the primary mechanism for ensuring implementation and compliance with the construction phase mitigation measures identified in this chapter.

Proposed Mitigation Measures

17.11 The Applicant will implement all mitigation measures outlined below.

Table 17-1 Mitigation Measures

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
General	**MM1**	The CEMP set out in **Technical Appendix 2-1** of this EIAR will be implemented which will outline day to day works, methodologies and safety measures. The CEMP will be in operation for the entire construction stage and will continually be updated as a 'live' document as the planning and construction of the Proposed Project progress. The contractor will be obliged under the construction contract and current health and safety legislation (Safety, Health and Welfare at Work Act 2005), Safety, Health & Welfare at Work (General Applications) Regulations 2007 (as amended) and Safety, Health & Welfare at Work (Construction) Regulations 2013 (as amended) to adequately provide for all hazards and risks associated with the construction phase of the Proposed Project.	Prior to and during Construction
	MM2	For operation and maintenance staff working at the Proposed Project, site safety measures as required by Irish workplace health and safety legislation will be utilised during the operational and decommissioning phases by all permitted employees. All personnel undertaking works in or around the turbines will be fully trained and will use appropriate Personal Protective Equipment (PPE) to prevent injury.	During Operation and Decommissioning
	MM3	Should any maintenance involve construction type activities, the mitigation measures identified in the CEMP will	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
		be implemented, including mitigation measures for excavation or stockpiled material. Decommissioning will also be carried out in accordance with the CEMP.	
Population and Human Health	**MM4**	The Developer's management procedures for the Proposed Project will identify actions to be followed during construction, operation and decommissioning in accordance with the following mandatory legislation: • Safety, Health & Welfare at Work (Construction) Regulations 2013 (as amended). • Safety, Health & Welfare at Work Act 2005 (as amended). • Safety, Health & Welfare at Work (General Applications) Regulations 2007 (as amended). During the construction and the decommissioning phases these management procedures will be set out in the CEMP. The Environmental Management System (EMS) that will be put in place for the operation of the Proposed Project set out the management procedures for the operational phase.	All Stages
	MM5	The Battery Safety Management Plan (BSMP) **Technical Appendix 4-1** of this EIAR)) will be followed to control specific	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Population and Human Health		fire, health and safety risks from the Battery Energy Storage System (BESS).	
	MM6	Rigorous statutory and engineering safety checks imposed on the turbines during construction, commissioning and operation will ensure the risks posed to humans are negligible.	
	MM7	Appropriate safety measures, traffic management, signage and communication with the public will be utilised to maintain safety and mitigate against potential danger.	
	MM8	Access to the turbine towers and the substation and BESS compounds will be restricted to approved and appropriately trained personnel.	During Operation
	MM9	24-hour remote monitoring and fault notifications are included as standard in the Turbine Operations and Maintenance Contracts.	
	MM10	A Construction Traffic Management Plan (CTMP) **Technical Appendix 14-4** of this EIAR will be implemented, covering vehicle routing, signage, road condition monitoring, and engagement with Mayo County Council.	Construction and Decommissioning
	MM11	Garda escort will be requested for turbine delivery as an extra safety measure when large loads are being transported.	
	MM12	Public consultation will be conducted along the GCR to inform local residents ahead of construction works.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity	**MM13**	Best practice environmental management measures to be implemented for the Proposed Project are specified in the CEMP to ensure adequate protection of the environment. All personnel working on the Proposed Project will be responsible for the environmental control of their work and will perform their duties in accordance with the requirements and procedures of the CEMP. These measures will reduce the potential soil, water, air and noise pathways through which potential contaminants could impact on ecological features.	All Stages
	MM14	The specific Peat Restoration Plan (PRP) and Habitat Management Plan that has been prepared (Technical Appendix 5 5 of this EIAR) provides details on how all invasive species will be managed throughout the lifespan of the Proposed Project. This includes the control of Rhododendron and Prickly Heath which were identified on site. The CEMP contains further management measures to prevent the spread of invasive species during construction with measures such as strict plant and machinery clean-down procedures (high-pressure wash, disinfect, dry), a check-clean-dry protocol to prevent crayfish plague, and biosecurity controls for material importation.	
	MM15	Works will follow best practice to minimise unnecessary noise and avoid lighting spill. Lighting will be shielded, directional and used only when required. Turbine lighting will be limited to statutory aviation requirements only. Substation lighting will be cowled, downward-directed, and motion-activated	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity		following guidance from the Bat Conservation Trust and the Institution of Lighting Professionals.	All Stages
	MM16	An Ecological Clerk of Works (ECoW) will be employed for the course of the construction and decommissioning of the Proposed Project and will conduct daily inspections of watercourses, habitats and mitigation measures.	
	MM17	To prevent accidental disturbance to resting places of mammals (badgers, red squirrel, pine marten, otter and hedgehog), a confirmatory ecological walkover survey will be undertaken prior to any construction activities within the Main Wind Farm Development Site.	Prior to Construction
	MM18	Trees and structures within the works corridor will be re-assessed for bat roosting potential prior to any construction activities with any inspections or emergence surveys carried out as required under licence.	
	MM19	Confirmatory checks for nesting birds will be carried out prior to the commencement of any construction activities during the bird breeding season. If nests are recorded, ongoing monitoring and appropriate exclusion zones will be implemented to determine when and where works can proceed. If exclusion zones cannot be implemented, National Parks and Wildlife Service (NPWS) will be contacted and based on their advice, additional mitigation will be implemented, with relevant licences applied for if required – although at this point it is important to note that no licences are required based on the results of the surveys.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity	**MM20**	The following measures will limit common kestrel foraging activity around turbines i.e. this will deter kestrel to ensure no significant effects from collision on this species: • creation of uniformly short vegetation heights via infrequent mowing or trimming of vegetation. • removal of timber/brash from felling and chipping of tree stumps to ground level. • spread and compaction of chipped wood and spoil to create a flat surface to prevent rapid colonisation of new vegetation. • piping/filling over of open field/forestry drains.	Prior to Construction
	MM21	Amphibian-proof fencing close to any ponds/pools will be used to prevent frogs or smooth newts from accessing any parts of the Main Wind Farm Development Site most hazardous to amphibians during the construction phase.	
	MM22	To minimise habitat loss, fragmentation and disturbance the CEMP details specific measures to address the following: • Vegetation clearance will be limited to the minimum footprint required.	Prior to and During Construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity		• Woodland, treeline and hedgerow trimming will follow seasonal constraints to protect nesting birds and roosting bats. • Root protection zones and exclusion fencing will be implemented to prevent unnecessary encroachment into retained habitats. • Excavations for cables and turbine bases will incorporate silt fences, cut-off drainage and rapid reinstatement to prevent sediment release to watercourses. • Stockpiles and construction zones will be fenced to avoid accidental overspill into adjacent habitats.	Prior to and During Construction
	MM23	To avoid widespread disturbance to birds, access will be restricted to the footprint of the proposed works corridor.	
	MM24	The following mitigation measures will be implemented to avoid damage and destruction (and disturbance to sensitive species) to occupied bird nests: • clearance of woodlands and uncultivated vegetation i.e. trees and hedgerows (including vegetation removal for creation/maintenance of bat mitigation buffers), will be undertaken outside the main breeding season from March to September inclusive.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity		• if other site clearance and construction activities are required to take place during the main breeding bird season, pre-commencement confirmatory survey work will be undertaken to ensure that nest destruction and disturbance is avoided. This will include the implementation of disturbance-free buffers. • once vegetation has been removed from the works corridor, these areas will be retained in a condition that limits suitability for nesting birds for the remainder of the construction phase. Cover for ground nesting species will be made unsuitable by cutting vegetation or tracking over with an excavator. • implementation of a 30 km/h speed limit within the 200 m buffer zone for nesting kestrel during the breeding season. • haulage vehicles will not drive within the 200 m buffer zone for nesting kestrel during dawn and dusk, which are key hunting periods for this species, during the breeding season, and • a suitably experienced ECoW will be employed for the duration of the construction period to make contractors aware of the ornithological sensitivities of the Proposed Project and to undertake confirmatory surveys for nesting birds throughout the construction period, enforcing exclusion areas as required.	Prior to and During Construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity	**MM25**	Temporary works areas will be sited on previously disturbed or low-value habitats where possible and reinstated post-construction. Drainage controls, settlement measures and buffers will prevent runoff.	Prior to and During Construction
	MM26	To prevent sediment entrainment and habitat degradation the CEMP details specific measures to address the following: • Stockpiles will be stored >50 m from watercourses and stabilised by covering or seeding. • Silt fencing will be installed at the downslope edges of stockpiles. • Fine sediment handling will avoid periods of heavy rainfall. • Material placement will be managed to avoid compaction of sensitive habitats and prevent encroachment beyond the defined working area.	
	MM27	Dust suppression measures will be implemented consisting of water misting, covering loads and restricting vehicle speeds which will protect vegetation, prevent smothering of bryophytes and lichens, and reduce the risk of dust entering aquatic systems.	
	MM28	Construction activity will be constrained where necessary to avoid sensitive periods for birds (breeding, overwintering) and	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity		bats. The ECoW will advise on timing to minimise disturbance to mammals, birds and aquatic fauna.	Prior to and During Construction
	MM29	The PRP includes a comprehensive programme of mitigation and compensation measures specifically targeted at Annex I blanket bog habitats drain blocking, infilling, zipping ground smoothing reprofiling of peat cutting faces scrub clearance and ongoing control of regeneration invasive species removal.	
	MM30	Turbine curtailment will be implemented to reduce bird mortality, it will be implemented via a system of adaptive management; where appropriate during 'at-risk' time periods and weather conditions.	
	MM31	The implementation of curtailment will be amended further where the results of post-commissioning monitoring demonstrate a significant, adverse effect on Important Ecological Feature (IEF) birds; which is not anticipated as the predicted impact levels are not identified to be significant post curtailment.	
	MM32	Feathering of Blades will be implemented via a system of adaptive management during the bat activity season (April–October) if any significant effects on bat mortality are recorded during post-construction monitoring. Curtailment would only be implemented if feathering was not successful in reducing effects as the monitoring programme is proposed to provide certainty that the above measures have been successful.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Biodiversity	**MM33**	Dry-bottomed surface water basins will be constructed and maintained so that no permanent standing water is present, preventing attraction of protected bird species to the turbine envelope. Basins will be vegetated with low-value, non-foraging habitat to discourage use by birds and bats.	During Operation
	MM33	Bat mitigation buffers will be inspected and monitored during Years 1, 2 and 3 following construction to confirm that vegetation clearance and management measures have achieved the intended habitat conditions. Once established, these conditions will be maintained for the duration of the operational phase.	
	MM34	Bat mitigation buffers will be established around turbines through targeted vegetation removal to maintain open habitat conditions that discourage bat foraging. These buffers will be maintained throughout the operational phase.	
	MM35	Turbine lighting will be limited to statutory aviation requirements only. Substation lighting will be cowled, downward-directed, and motion-activated follows Bat Conservation Trust & ILP (2018).	
Land, Soils and Geology	**MM36**	Measures that will be implemented to reduce the risk of potential fuel / oil spills consist of: • It will be ensured that any refuelling of mobile plant is only undertaken using double skinned bowsers.	All Stages

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Land, Soils and Geology		• Oils, greases, hydraulic fluids or hazardous substances (or any associated wastes) will only be stored within designated storage areas in the construction or substation compounds under cover, and over fuel spill trays / bunded containers. • Mitigation measures in line with best practice in the CEMP will be implemented to reduce risks of spills, including regular monitoring and inspection of storage vessels and regular maintenance and servicing of construction plant and equipment.	
	MM37	Replant lands elsewhere to compensate for the loss of forestry land within the Main Wind Farm Development Site once licence obtained from DAFM (Department of Agriculture, Food and the Marine).	Prior to construction
	MM38	An appropriately experienced and qualified engineering geologist/geotechnical engineer will be appointed during the construction phase, to provide advice during the setting out and construction phases of the works.	Prior to and During construction
	MM39	A Geotechnical Risk Register will be developed and maintained by the appointed geotechnical engineer.	
	MM40	Undercutting of peat slopes will be avoided.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Land, Soils and Geology	**MM41**	Backfilling / construction phase works will be undertaken in accordance with relevant best practice environmental guidance published by the Environmental Protection Agency and other regulatory agencies. All activities will be undertaken in accordance with the provisions in the Waste Management Act 1996 (as amended).	During Construction and Decommissioning
	MM42	Areas of bare or exposed soils and rock will be kept to a minimum, insofar as practicable. Where required, stockpiled soils (pending re-use) or exposed surfaces (pending further backfilling to final ground level) will be temporarily covered/revegetated.	
	MM43	Stockpiles will be monitored and kept stable for safety and to minimise erosion.	
	MM44	To minimise the risk of potentially inducing peat landslides during construction of the Proposed Project, the following will be implemented: • Raise Health and Safety awareness of the peat environment at the Proposed Project, for construction staff by incorporating the issue into the site induction. • Include peat slide risk assessment information (e.g. peat instability indicators, best practice and emergency procedures) in toolbox talks with relevant operatives e.g. plant operatives.	During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Land, Soils and Geology		• Carry out confirmatory pre-construction surveys and ground investigations prior to the commencement of works. • Minimise off-track plant movements within areas of peat, use trackways once constructed. • For sections of track that require track side cuttings into peat, suitable support measures will be implemented to maintain the stability of the adjacent peat terrain.	During Construction and Decommissioning
	MM45	**Access Tracks and Excavations** • Where track construction is required over peat areas in excess of 1 m deep, this will be undertaken with a floating track construction, where the integrity of the peat allows; • Cut and fill will be avoided in peat greater than 1 m deep if possible; if not, the following requirements on side long ground (across contours) will be adopted; • Excavate to a sound stratum. • The majority of construction surfaces will be essentially horizontal with a slight fall to aid drainage. • Where the depth of cut is deemed unstable, employ a stepped or benched surface with the intention of	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Land, Soils and Geology		minimising the exposed surface of the up-slope cut face; • Protect all exposed peat surfaces from erosion and desiccation, by ensuring the integrity and moisture content of the peat is maintained. • The top of cut slopes will be provided with a small bund to retain the peat to prevent desiccation and maintain the local stability of the peat.	
	MM46	Implement and update the 'Peat Landslide and Hazard Risk Assessment' (**Technical Appendix 6-3**) to provide instructions for site staff in the event of a peat slide or discovery of peat instability indicators. **Technical Appendix 6-3** provides details on the frequency of proposed monitoring during operations.	During Operation
Water (Hydrology & Hydrogeology)	**MM47**	Prior to main earthwork activities, interceptor drains or diversion ditches will be created to minimise the pooling water in areas of development. The employed diversion method will flow into the existing peat drainage channels. The diversion method will follow the topography of the site and installation will commence up gradient of all construction to commence. The clean surface water will be collected and diverted to the existing ditches via the peat channels. Regular monitoring and prompt maintenance of these assets will ensure that the drainage system continues to function as designed.	Prior to Construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)	**MM48**	A robust baseline of water quality in surface watercourses/drainage channels downstream of construction works will be established prior to construction commencing and used as a benchmark of water quality for the construction phase monitoring.	
	MM49	The CEMP follows best practice construction measures referred to in **Chapter 7** of this EIAR, which will ensure avoidance and reduction of impacts throughout the construction and decommissioning phases. Specific hydrology related measures will include: • No refuelling of vehicles / machinery and no storage of stockpile material within 50 m of nearby streams. • Vehicle re-fuelling will take place either within the compound at a dedicated impermeable refuelling pad with a secure base and walls, or by mobile double-bunded bowsers. • The refuelling pad will have an impermeable base and bund with a capacity of 110% with sumps provided such that they do not drain directly into the surface water drains. • Where practicable, drainage from the compound will be passed through oil interceptors prior to discharge. • Absorbent material (spill kits) will be available onsite with dedicated kits adjacent to watercourses and will be	During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		deployed to contain drips and small spillages. Absorbent pads/granules will be available at the temporary construction compounds in the case of an accidental leak/spillage. • All other fuels, oils and potential contaminants, as well as waste oils, will be stored in secure, fit for purpose containers within bunded containment as appropriate and in accordance with the EPA (2004) Guidance Note on Storage and Transfer of Materials for Scheduled Activities which is generally considered as best practice . • All maintenance will be conducted on suitable absorbent spill pads to minimise the potential for groundwater and surface water pollution. • All machinery will be equipped with drip pans to contain minor fuel spillage or equipment leakages. • No discharge from the temporary construction works at the Over-run Areas to nearby drains or river channels. • Silt fences will be installed between any construction works and the river channel and any streams within the 50 m buffer to ensure no silt will enter the water course. • Daily visual inspections will be undertaken at all drains and river channels.	During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		• The Environmental Incident and Emergency Response Plan outlined in **Technical Appendix 2-1**, the CEMP will provide emergency response contacts, reporting procedures, and procedures for dealing with all potential pollution incidents during the construction of the Proposed Project.	
	MM50	There will be a wash-out facility within the construction compound consisting of a sump overlain with a geosynthetic membrane. The geosynthetic membrane will filter out the concrete fines leaving water to pass through to the sump. No washing of concrete-associated vehicles will be undertaken outside the wash out facility, and the area will be signposted, with all site contractors informed of the locations.	During Construction
	MM51	To prevent pollution, all concrete pours will be planned, and specific procedures adopted in accordance with Construction Industry Research and Information Association (CIRIA) C532 Control of water pollution from construction sites: guidance for consultants and contractors. These procedures will include: • Ensuring that all excavations are sufficiently dewatered before concrete pours begin and that dewatering continues while the concrete cures. Construction good practice will be followed to ensure that fresh concrete is isolated from the dewatering system.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		• Ensuring that covers are available for freshly placed concrete to avoid the surface of the concrete washing away during heavy precipitation. • Perimeter drains with silt traps.	During Construction
	MM52	Excavated areas will be back-filled with compacted layers of graded material from the original excavation, where this is suitable, and capped with peat or soil. The finished surface around the bases of the turbines, will be capped with crushed aggregate.	
	MM53	A 50 m buffer distance, including fuel storage and construction compounds, will be maintained between watercourses and the wind turbine infrastructure. CIRIA Guidance as referred to above will be followed to ensure the protection of streams within the 50 m buffer in the temporary works areas of Over-run Areas 2 and 3 of the Turbine Delivery Route (TDR).	
	MM54	Flat ditches will be employed parallel to tracks as opposed to standard V-ditches. The shallower excavation will not lower the water table, preventing lateral effects to the infrastructure.	
	MM55	The sealed wastewater holding tank and foul water holding tank will be transported offsite as required by an authorised waste collector to a wastewater treatment plant. Only waste collectors holding valid waste collection permits under the Waste Management (Collection Permit) Regulations, 2007, will be	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		employed to transport wastewater away from the Main Wind Farm Development Site.	During Construction
	MM56	A wet weather protocol to manage activities during periods of heavy and prolonged precipitation will be developed and implemented by the Project Supervisor for Construction Stage (PSCS) to manage activities during periods of heavy and prolonged precipitation. The protocol will be approved by MCC in consultation with EPA.	
	MM57	Silt traps will be utilised to trap and filter any sediment-laden run-off from isolated areas of excavation works at the Proposed Project.	
	MM58	Floated construction will be implemented as far as possible to minimize excavation in peat and to preserve the existing ground and hydrological conditions. The construction specification for the access tracks will be informed by confirmatory site investigations once planning permission has been granted. This will include in-situ testing, such as Dynamic Cone Penetrometer (DCP) testing, to determine the California Bearing Ratio (CBR) of the underlying peat. The CBR values will inform the track design, including the required thickness of the stone sub-base and the need for, and specification of, any geogrid or other geosynthetic reinforcement necessary to achieve the required load-bearing capacity for construction and operational traffic.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		A standard floating track incorporates two geogrid layers, or similar. Floating construction will comprise geogrid-reinforced granular layers placed directly on the vegetation mat with geotextile separation, with thickness varied by detailed design in response to CBR and peat depth. Sediment traps will be installed to ensure there is no impact on the water environment from the Over-run Areas.	During Construction
	MM59	Sustainable Drainage Systems (SuDS) will be implemented as follows, depending on specific ground conditions within respective areas of the Proposed Development Site: • Filter strips, which are a method of source control constructed by sloping a gentle strip of ground for runoff to flow over. Runoff will flow down the hillside and the vegetation will intercept the pollutants such as silt, whereas the water will infiltrate slowly into the soil/peat layers below. Filter strips are typically constructed between the upland development/access tracks and the watercourses at the bottom of the development. However, it is noted that filter strips are not suitable for use at steep sites. • Swales, which are a source control and a method of deterring runoff from accumulating into one large drainage area. Swales are typically broad but shallow and will be created by excavating a small trench alongside the source of runoff, for example access tracks. Swales assist water into a storage or discharge	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		system to reduce flood risk and encourage slow infiltration. • Silt fences, which are constructed using a closely woven synthetic geotextile material, and are a quick and easy form of SuDS which can will be used during the construction stage. They can will be established along the leading runoff routes, intercepting high runoff flows and pollutants. Both methods have high capabilities of intercepting the mass of pollutants during the construction stage, with further use of being temporary check dams if required, for example within swales. • Attenuation basins will be constructed on the Mind Wind Farm Site by constructing a depression within the ground where water from the drainage network and runoff collects. Basins reduce flood risk while encouraging slow infiltration into the ground below. All attenuation basins will be actively managed, with regular inspections and removal of silt build up to control water levels and ensure that any run-off is contained, especially during times of rainfall. Attenuation basins will be regularly inspected, and discharge may be pumped, when required, for maintenance purposes.	During Construction
	MM60	The following will be put in place for the construction of the proposed permanent water crossing culverts (WCX1 and 2) to ensure no sediment or silt material will enter any water courses:	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		• No storage of stockpiled material within 50 m of construction works. • Silt fences will be erected between the construction works and all drains and watercourses within the 50 m buffer. • There will be daily visual inspections of all drains and water courses near construction works.	During Construction
	MM61	All attenuation basins will be actively managed, with regular inspections and removal of silt build up to control water levels and ensure that any run-off is contained, especially during times of rainfall. Attenuation basin outflow will be regularly inspected, and discharge may be pumped, when required, for maintenance purposes. Any pumping activities will be supervised and authorised by the PSCS and Site ECoW. Treated water will be discharged with care in accordance with the following principles: • Water to be discharged in a planar sheet flow way rather than as a single point discharge in order to slow and spread the flow and minimise potential scour. • Use of many small/mid diameter outlets, rather than collecting larger volumes of drainage flows to discharge to a smaller number of larger capacity outlet points.	All Stages

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)		• Not allowing direct, contaminated ditch discharge into watercourses, loughs and sensitive wetlands or grasslands. • Not diverting natural flows, unless under prior agreement with EPA and MCC.	All Stages
	MM62	Separate surface water and foul drainage networks will be provided. The foul water holding tank contents will be tankered off site by a permitted waste collector to a wastewater treatment plant. A wastewater holding tank will be provided within the substation compound fence and will be a sealed storage tank with all wastewater tankered off site as required by an authorised waste collector to a wastewater treatment plant. Only waste collectors holding valid waste collection permits under the Waste Management (Collection Permit) Regulations, 2007, will be employed to transport wastewater away from the Main Wind Farm Development Site. The proposed wastewater storage tank will be fitted with an automated alarm system that will provide sufficient notice that the tank requires emptying. The wastewater storage tank alarm will be part of a continuous stream of data from the Main Wind Farm Development Site that will be monitored 24 hours a day, seven days per week. This approach for managing wastewater onsite has become a standard practice in wind farm sites.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Water (Hydrology & Hydrogeology)	**MM63**	Oil separators will be installed where required, particularly in transformer or plant areas, to prevent hydrocarbons entering the surface water system. Discharge from the built compounds and turbine hardstandings will be directed to the attenuation pond network.	
	MM64	Should any maintenance be required onsite which would involve construction type activities, the mitigation measures identified in the CEMP will be implemented.	During Operation
	MM65	Storage of fuels/oils onsite will be limited to the hydraulic oil required in turbine gearboxes and this is bunded to (110% bund capacity) to prevent fluid escaping.	During Operation
	MM66	Immediately post-construction, flow attenuation measures will remain and be maintained to slow runoff velocities and prevent erosion until vegetation becomes established.	During Decommissioning
Air Quality and Climate	**MM67**	The CEMP follows best practice construction measures referred to in **Chapter 8** of this EIAR, consisting of: • Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	Prior to and During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Air Quality and Climate		• Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. • Display the head or regional office contact information. • The internal access roads will be constructed prior to the commencement of other major construction activities. These roads will be finished with graded aggregate. • A water bowser will be used to spray work areas (wind turbine area, GCR, sites entrances and Over-run Areas) as required, especially during periods of excavation works coinciding with dry periods of weather, to suppress dust migration from the site. • All loads which could cause a dust nuisance will be covered to minimise the potential for emissions during transport. • Gravel will be used at the site exit point to remove any dirt from tyres and tracks before travelling along public roads. • Earthworks and exposed areas/soil stockpiles will be re-vegetated to stabilise surfaces as soon as practicable.	Prior to and During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Air Quality and Climate		• Where re-vegetation is not possible, hessian, mulches or tackifiers will be used as soon as practicable. • The access and egress of construction vehicles will be controlled to designated locations, along defined routes, with all vehicles required to comply with onsite speed limits. • Construction vehicles and machinery will be serviced and in good working order. • Concrete wash water from washout of chutes on site associated with the ready-mix concrete delivery will be disposed of at a licenced facility. • Wheel washing facilities will be provided at the entrance/exit point of the Main Wind Farm Development Site. • It will be ensured that there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. • The developer in association with the contractor will implement dust control measures as part of the CEMP. In the event the Planning Authority decides to grant permission for the Proposed Development, the CEMP will be expanded to address the requirements of any relevant planning conditions, including	Prior to and During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Air Quality and Climate		any additional mitigation measures which are conditioned by the Planning Authority. • All vehicles will switch off engines when stationary – no idling vehicles. • Exhaust emissions from vehicles operating within the Main Wind Farm Development 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. In addition, the CTMP will be implemented, covering vehicle routing, signage, road condition monitoring and engagement with MCC. This will ensure that all Heavy Duty Vehicles (HDVs) and Abnormal Indivisible Load (AILs) will access the Main Wind Farm Development Site via approved routes, avoiding sensitive areas and peak traffic times with the following mitigation measures which will be employed: o Dry sweeping of large areas will be avoided. o Vehicles entering and leaving sites will be covered to prevent escape of materials during transport. o On-site haul routes will be inspected for integrity and necessary repairs to the surface will be instigated as soon as reasonably practicable.	Prior to and During Construction and Decommissioning
Air Quality and Climate			

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
		○ All inspections of haul routes will be recorded and any subsequent action in a site log book. ○ Hard surfaced haul routes, will be regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. ○ Cutting, grinding or sawing equipment will be fitted with or used in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems. ○ An adequate water supply will be transported to the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate. ○ Drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment will be minimised and fine water sprays will be used on such equipment wherever appropriate. Equipment will be readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. ○ Site layout will be planned so that machinery and dust-causing activities are located away from receptors, as far as is possible.	Prior to and During Construction and Decommissioning

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Air Quality and Climate		○ Site runoff of water or mud will be avoided. ○ Materials that have a potential to produce dust from site will be removed as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below. ○ Covering, seeding or fencing of stockpiles will be undertaken to prevent wind whipping. ○ Bonfires and burning of waste materials will be avoided.	Prior to and During Construction and Decommissioning
	MM68	Dust suppression measures will be implemented consisting of water misting, covering loads and restricting vehicle speeds which will protect vegetation, prevent smothering of bryophytes and lichens, and reduce the risk of dust entering aquatic systems.	All Stages
	MM69	During the operational phase all employees and contractors that are on site will ensure that machinery used is properly maintained and is switched off when not in use to avoid unnecessary exhaust emissions from maintenance traffic.	During Operation
	MM70	In the event that components of the turbines require replacement or repair, measures stipulated for the control of dust and emissions during the construction phase will be implemented.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Noise and Vibration	**MM71**	Standard management measures as dictated by the CEMP will be implemented to reduce the potential for noise impacts to arise, such as controls on timing of activities and proper operation and maintenance of equipment.	Prior to and During Construction
	MM72	A temporary 2.5 m high solid close-boarded wooden fence, or equivalent noise barrier, will be installed on the north section of Over-run Area 1 where it joins the local road, which will reduce noise from construction activity by up to 10 dB.	
	MM73	The final turbines will only be selected if they can meet the noise limits identified in the EIAR, either operating unconstrained or mitigated in noise reduced modes. The final confirmed noise mitigation modes (if required) will be agreed with the local authority and will ensure compliance with the specified noise limits.	Prior to Operation
Landscape and Visual	**MM74**	The specific type of aviation lighting that will be installed at the Main Wind Farm Development Site will be agreed with the Irish Aviation Authority (IAA) in line with its requirements, while reducing/eliminating the night-time visual effects in sensitivity to the Mayo Dark Sky Park and residential receptors.	Prior to Construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Landscape and Visual	**MM75**	Sensitive timing of excavations and rapid reinstatement will be employed as a management measure, with the aim of reducing the visibility of temporary disturbances.	During Construction
	MM76	The lifespan of the project is 35 years, after which time it will be decommissioned and the landscape reinstated to prevailing conditions. Hardstanding material, including access tracks and turbine foundations will be covered in topsoil and left to revegetate naturally.	During Decommissioning
Shadow Flicker	**MM77**	Shadow flicker control modules, consisting of light sensors and specialised software, will be installed on all turbines, irrespective of which turbine model is installed.	Prior to Operation
	MM78	The installation of a programmable shadow flicker module will allow future conditional control of turbines in order to eliminate shadow flicker based on brightness and wind conditions, irrespective of which turbine in the range is installed.	
	MM79	The module can control a specific turbine (or turbines) which would be programmed to shut down on specific dates at specific times when the sun is bright enough, there is sufficient wind to rotate the blades, and the wind direction is such that nuisance shadow flicker could occur.	During Operation

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Shadow Flicker	**MM80**	The operation and performance of the shadow flicker control measures will be monitored on an ongoing basis.	
	MM81	During operation of the proposed turbines, any complaints relating to shadow flicker will be fully investigated by the Developer and the shadow flicker control system updated accordingly.	
Cultural Heritage	**MM82**	Should archaeological remains be identified during the construction phase, construction will immediately cease, and the MCC Heritage Officer contacted. Should human remains be identified, under the Coroner's Act 1962, a coroner must be contacted, and the remains will be handled in accordance with legal and guidance procedures. Should any materials of an archaeological nature be identified, including those of rare metals, in accordance with the legal requirements of the National Monuments Act (1930 – 2014) requires that it will be reported to the relevant authorities. If any previously unknown features are uncovered, any further archaeological mitigation will be determined by the relevant Government Department.	During Construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Material Assets, Including Telecommunications and Aviation	**MM83**	A safety statement will be issued in advance of works and the responsible party(ies) to erect all relevant safety signage and to walk the Main Wind Farm Development Site with contractors to highlight any environmental sensitivities or site risks.	Prior to construction
	MM84	The operators of the Belmullet Aerodrome and Ireland West Airport will be consulted by MCC during the latter's consideration of the planning application. Any mitigation measures requested by those operators will be considered by the planning officers in their assessment of the Proposed Development.	
	MM58	An aeronautical obstacle warning light scheme will be agreed with the IAA prior to erection of the wind turbines.	
	MM86	The IAA will be notified of the intention to commence crane operations with at least 30 days prior notification of their erection.	
	MM87	Should the Proposed Development be permitted, the associated turbine locations will be submitted to the IAA, aviation charts and the Global Navigation Satellite System (GNSS) databases will be updated accordingly.	
	MM88	A protocol will be signed between Telecommunications operator 2RN and the Applicant, should planning permission be granted for the Proposed Development.	Prior to and During construction

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Material Assets, Including Telecommunications and Aviation	**MM89**	Records of services such as water mains, sewers, gas mains and other power cables will be obtained from the relevant service providers ahead of construction works to ensure that any new development between the period of assessment and pre-- construction is captured.	Prior to and During construction
	MM90	Cable detection tools, Ground Penetrating Radar (GPR), and slit trenches will be used as appropriate to confirm the exact locations of underground service infrastructure prior to any groundworks being carried out. Measures such as GPR surveys prior to any excavation works and minimum separation distance of at least 300 mm with existing services are detailed in the CEMP.	
	MM91	Collaboration will continue between the applicant, Eirgrid and ESB Networks and any temporary disturbances will be planned and communicated with those impacted well in advance of works being carried out.	
	MM92	As outlined in Felling and Restoration Policy (DAFM, 2019), all forestry felled for infrastructure needs to be replaced through the compensatory afforestation of an equivalent area of alternative land. Replanting of forestry will be undertaken on between 27.17 to 31.37 hectares of land, depending on the turbine specification. The afforestation of any alternative land will first require written 'Technical Approval' from the DAFM under the Forestry Act 2014.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Material Assets, Including Telecommunications and Aviation	**MM93**	Where any disturbance to overground or below ground cables will require short term disruption to telecommunications services, this will be communicated in writing in advance to the potentially impacted residents.	
	MM94	A fully authorised and licenced waste management contractor will be appointed prior to the commencement of construction works. This contractor will provide the appropriate receptacles for the collection of the various waste streams and ensure regular emptying and/or collection of these receptacles. Waste will be collected by the permitted waste management contractor who will then transport this waste to an appropriate facility. All waste movements will be recorded, and the waste manager on-site will hold these records.	During Construction
	MM95	Potential effects during decommissioning works will no greater than those outlined in the Construction Phase.	During operation and Decommissioning
	MM96	The crane pads and foundations will be covered over and allowed to re-vegetate naturally. It is likely that the onsite access tracks will be left in situ, subject to agreement with Mayo County Council and the relevant landowners at that time.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Traffic and Transport	**MM97**	Public notification measures will be implemented in advance of AIL movements to allow residents to plan journeys and minimise disruption.	Prior to and During Construction
	MM98	The movement of AILs will be timed to avoid periods of heavy traffic flow to minimise disruption to the public.	
	MM99	The CTMP will include procedures for liaising with emergency services to ensure AILs do not impede Garda, fire or ambulance access.	
	MM100	Delivery scheduling will take account of local events and community activities to avoid conflict with AIL movements	
	MM101	Signage will be provided throughout the Main Wind Farm Development Site. Signage will be erected at points along the entire TDR, warning of AIL movements and giving other road users the chance to alter their journey to avoid any chance of being affected by the AIL movements The nature and locations of signage will also be agreed with the County Councils and remain in place for the duration of the construction period.	
	MM102	All construction HDVs and AILs will access the site via approved routes, avoiding sensitive areas and peak traffic times.	
	MM103	Mitigation measures that will be implemented on the L5252 consist of providing additional passing places and controlling	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Traffic and Transport		the timing of deliveries to ensure any potential conflict arrivals and departures is minimised.	
	MM104	Manual traffic control (e.g., Stop/Go systems) will be used where required to safely manage single-lane working or constrained road sections.	During Construction
	MM105	All loads will be fully covered to prevent material loss during transport.	
	MM106	Construction plant and HDVs will be fitted with audible reversing alarms and appropriate visual aids (e.g., cameras, mirrors) to minimise collision risk.	
	MM107	Parking areas within the construction compound will be segregated from plant and vehicle routes using physical barriers to ensure safe pedestrian movement.	
	MM108	A wheel and body wash will be operated within the Main Wind Farm Development Site to ensure material are not transferred onto the road, and road cleaning will take place when required.	
	MM110	The AIL convoys will be no more than three vehicles long to permit safe transit along the delivery route.	
	MM111	Signage will be erected at points along the entire TDR as relevant, warning of AIL movements.	

Environmental Topic	Ref. no.	Mitigation Measure Proposed	Timing of Implementation
Major Accidents and Disasters	**MM112**	The CEMP contains a range of management measures through which health and safety will be safeguarded through the construction of the Proposed Project, and the risks of major accidents and disasters minimised. General emergency response procedures are specified in the CEMP. Emergency response procedures highlight fire safety and fire prevention, including risks of and control measures to prevent fire outbreak, evacuation procedures and those responsible for their implementation, and the use of firefighting equipment, in line with the 2017 HSA Guidelines on the Procurement, Design and Management Requirements of the Safety Health and Welfare at Work (Construction) Regulations 2013. If planning permission is granted, the Environmental Incident Emergency Response Plan (EIERP) contained in the CEMP in **Technical Appendix 2-1** will be implemented and further developed by the PSCS.	Prior to and During Construction
	MM113	A BSMP (**Technical Appendix 4-1** of this EIAR) has been produced to specify details of the safety management processes and procedures which will be implemented to satisfy the prevailing safety requirements for the BESS element of the Proposed Project. The BSMP will focus on identifying and controlling battery specific hazards, in the event of fire or heat exposure.	

Proposed Monitoring Measures

17.12 A number of environmental monitoring activities are to be continued during all stages of the Proposed Project to confirm the effectiveness of the mitigation measures described above, to establish if there are any trends in environmental parameters and to highlight the need for remedial action if necessary.

17.13 Post-construction monitoring will be undertaken to verify the effectiveness of the proposed mitigation measures. Environmental monitoring requirements have been identified in the specific chapters of this EIAR. A summary of the measures is provided below in **Table 17-2**.

17.14 If monitoring indicates that any effects are in exceedance of predicted levels, adaptive management measures will be agreed and implemented.

Table 17-2 Proposed Monitoring Measures

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
Biodiversity	**MX1**	Pre-construction confirmatory ecological walkover surveys for mammals, bat roosts and nesting birds will be undertaken.	Prior to Construction
	MX2	Pre-construction confirmatory survey for invasive/non-native species. HMP will be updated if there are any changes to baseline condition.	
	MX3	A year of confirmatory surveys will be undertaken for bats immediately prior to construction to include three rounds of static detector surveys (spring, summer, autumn).	
	MX4	The ECoW will conduct daily inspections of watercourses, habitats and mitigation measures.	During Construction and Operation

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
Biodiversity	**MX5**	Any deviation from expected trends will trigger inspection, corrective action and reporting under the Environmental Incident Response Plan (part of the CEMP).	
	MX6	Confirmatory surveys for nesting birds throughout the construction period enforcing exclusion areas as required.	
	MX7	Post-construction bird monitoring in Years 1, 2 and 3. Six hours of survey per vantage point per month. One round of carcass searches per turbine per month.	
	MX8	Static Bat detector surveys during years 1, 2 and 3 post construction.	
	MX9	Bat Fatality monitoring during years 1, 2 and 3 may be extended or halted depending on the findings of the initial surveys and in agreement with Mayo County Council.	
	MX10	Bat mitigation buffers will be inspected and monitored during Years 1, 2 and 3. Once established, these conditions will be maintained for the duration of the operational phase.	
	MX11	The HMP provides the 35-year long-term active management strategy. Annual surveys in Years 1–3, then periodic 5 year inspections (Years 5, 10+). Indicators include water table, vegetation, peat accumulation, invasive species.	During Operation and Decommissioning

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
Land, Soils and Geology	**MX12**	Periodic site inspections will be undertaken of the Main Wind Farm Development Site to inspect ground conditions during all phases, particularly after heavy rainfall events.	All Stages
	MX12	Confirmatory pre-construction surveys and ground investigations will be carried out prior to the commencement of works.	Prior to Construction
	MX14	There will be regular monitoring and inspection of storage vessels and regular maintenance and servicing of construction plant and equipment.	All Stages
	MX15	Stockpiles will be evaluated and monitored during and following rainfall events and kept stable for safety and to minimise erosion.	During Decommissioning
Water (Hydrology and Hydrogeology)	**MX16**	Groundwater monitoring standpipes have been installed at borehole (BH) locations BH01 and BH06 and BH07 and screened in the bedrock to facilitate groundwater quality monitoring.	Prior to Construction
	MX17	A robust baseline of water quality in surface watercourses/drainage channels downstream of construction	

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
		works will be established prior to construction commencing and used as a benchmark.	
	MX18	Groundwater and surface water quality monitoring will be carried out as required by MCC during construction to demonstrate no deterioration.	During Construction
	MX19	Attenuation Basins will be actively managed, with regular inspections and removal of silt build up.	
	MX20	Heavy or prolonged rainfall may lead to sediment transport. Regular visual inspections and prompt maintenance of these assets will be carried out to ensure the drainage system continues to function as designed	
Air Quality and Climate	**MX21**	Where possible baseline monitoring will be commenced at least three months before work commences on any phase of works.	During Construction
Noise and Vibration	**MX22**	The Applicant will submit and agree with the planning authority a Noise Complaint Monitoring Programme (NCMP) prior to commissioning	Prior to Operation

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
	MX23	A NCMP will be drafted, agreed with MCC, and put in place to protect local residents with the following requirements which will be undertaken: • The NCMP will confirm how complaints will be investigated and verified that the operational wind turbine noise from the Proposed Project is not in excess of the appropriate noise limit. • The noise limits which cannot be exceeded will be in accordance with those specified in this EIAR (See **Chapter 9** of this EIAR). • A commitment by the Applicant to employ a qualified acoustician, at their expense, within 28 days of receipt of a written request of the planning authority, following complaint.	During Operation
Shadow Flicker	**MX24**	As the shadow flicker assessment comprises a desk-based exercise, there will be no further survey requirements, or monitoring. If a complaint is made regarding shadow flicker, an investigation will take place which considers the weather conditions at the time of the alleged shadow flicker, to determine which turbines were, or were not, creating the effect and the extent of the shadow flicker created. If the investigation confirms a loss of residential amenity at any	During Operation

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
		location, the technical mitigation measures built into these turbines will be activated.	
Material Assets, Including Telecommunications and Aviation	**MX25**	Flight checks are conducted annually by an IAA approved Flight Inspection Service Provider. The checks will provide whether any interference between the Proposed Project and any aviation interests is caused.	During Operation
	MX26	The selected contractor will nominate a suitable site representative (such as a Project Manager or Site Manager) as the Waste Manager who will have overall responsibility for the management of waste and to check that authorised waste contractors transport waste materials to appropriately licenced facilities.	
	MX27	The Protocol to be signed between 2RN and the Applicant if planning permission is granted provides a framework for monitoring and rectifying any future interference with RTÉ networks.	
Traffic and Transport	**MX28**	The CTMP will be implemented, covering vehicle routing, signage, road condition monitoring, and engagement with MCC.	During Construction

Environmental Topic	Ref No.	Monitoring Measure Proposed	Timing of Implementation
Major Accidents and Disasters	**MX29**	An Environmental Management System (EMS) will be put in place for the Proposed Project. The operator will develop the EMS in accordance with ISO14001:2015, applying for accreditation when operational. The purpose of the EMS is to control and mitigate the environmental impacts of the Proposed Project and will include, but not be limited to, the following: • Materials Acceptance Procedures; • Standard Operating Procedures; • Measures to comply with corporate sustainability goals (e.g., reducing water and energy consumption); • Accident prevention and emergency response procedures; and • Complaints Register. The maintenance of the EMS will provide a framework for monitoring all aspects of the health, safety and environmental management of the Proposed Project.	During Operation