

## 15 SCHEDULE OF MITIGATION

### 15.1 Introduction

All mitigation measures relating to the pre-commencement, construction and operational phases of the Proposed Project are set out in the relevant chapters of the EIA submitted as part of the planning permission application.

The proposed Solar Farm, the Substation and Grid Connection has been assessed and the entirety of the Proposed Project has been assessed cumulatively within this EIA, the mitigation presented throughout the EIA are consolidated within this section under the three headings Solar Farm, Substation and Grid Connection and Proposed Project.

It is intended that the CEMP would be updated where required prior to the commencement of the development, to include all mitigations measures, conditions and or alterations to the EIA and application documents should they emerge during the course of the planning process and would be submitted to the Planning Authority for written approval.

All mitigation measures which will be implemented during the pre-commencement, construction and operational phases of the project are outlined in Table 15.1. The mitigation measures have been grouped together according to their environmental field/topic and are presented under the following headings:

- Construction Management
- Drainage Design and Management
- Felling
- Peat, subsoils and bedrock
- Flora and Fauna
- Noise
- Air Quality/Dust
- Landscape and Visual
- Traffic
- Cultural Heritage

By presenting the mitigation proposals in the format set out in Table 6.1 below, an easy to audit list that can be reviewed and reported on during the future phases of the project. The proposal for site inspections and environmental audits are set out in Section 9 below. The tabular format in which the below information is presented, can be further expanded upon during the course of future project phases to provide a reporting template for site compliance audits.

**Table 15.1 – Schedule of Mitigation**

Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Pre-Commencement Phase</b>			
<b>Solar Farm</b>			
MM1	Archaeology	EIAR Chapter 12	A 15m buffer zone will be established around the recorded monument (KD008-025) from which all ground works, tracking of machinery and materials storage will be excluded.
<b>Substation and Grid Connection</b>			
MM2	Environmental Management	Appendix 4-4	Prior to construction of the substation foundation the drainage and sediment control plan will be fully implemented with the required settlement pond and interceptor drains put in place.
<b>Proposed Project</b>			
MM3	Environmental Management	Appendix 4-3	The contractor appointed to carry out construction works for this project will be required to prepare a site-specific Construction Environmental Management Plan (CEMP) for work within the scope. The CEMP will identify the staff responsible for the various management plans and mitigation measures, as well as the steps and procedures that will be implemented to minimise the environmental impacts resulting from the site preparation, groundworks and plant erection and commissioning phases of the project.
MM4	Environmental Management	Appendix 4-3	A full construction management team will be deployed on site in accordance with routine site construction procedures. This team will consist of a Resident Site Manager and Assistant Engineers as appropriate.
MM5	Environmental Management	Appendix 4-3	An Environmental Manager, who will be supported by an independent Project Ecologist, will be appointed for the duration of the works to ensure compliance with ecological mitigation measures.
MM6	Flora and Fauna	EIAR Chapter 6	Should breeding or resting places of various possible mammals such as badger or otter be recorded in the pre-construction surveys a site-specific mitigation plan shall be prepared and agreed with the NPWS prior to the commencement of works
MM7	Road Pre-Construction Survey	EIAR Chapter 13	A pre-condition survey of roads associated with the Proposed Project will be carried out prior to construction commencement to record the condition of the road
MM8	Information to Local Residents	EIAR Chapter 13	Local residents in the area will be informed of any upcoming traffic related matters e.g. temporary lane/road closures (if required), via letter drops and posters in public places. Information will include the contact details of the Contract Project Co-Ordinator, who will be

Ref. No.	Reference Heading	Location	Mitigation Measure
			the main point of contact for all queries from the public or local authority during normal working hours. An "out of hours" emergency number will also be provided.
MM9	Fencing	EIAR Chapter 4	<p>In order to secure the site during the construction phase, the fencing and gates will be installed first for the safety of the workers and public. The permanent site entrance shall be designed to ensure that appropriate sightlines are provided. It will consist of a double leaf security gate constructed of low visual impact fencing in a similar style to the security fence. There will be several other gates to allow access to various parts of the site whilst preserving safety and security. These gates will be constructed of similar design to the fencing to create low visual impact.</p> <p>The fencing will be constructed using 2 m high deer fencing around the area of the solar panels, with wildlife flaps inserted to allow animals to pass in and out of the site. The substation will be fenced around using palisade fencing.</p>
MM10	Culverts	EIAR Chapter 4	These will be suitably designed for base flows and peak flows, with a minimum size to avoid occurrence of blockages and build-up of discharges and to avoid increased flow velocities with the potential to cause erosion. They will also be designed in accordance with the requirements of Inland Fisheries Ireland's Requirements for the Protection of Fisheries Habitats during Construction and Development works at River Sites where required.
MM11	Earthworks	EIAR Chapter 4	Drainage works will be installed prior to the main earthworks activities related to the construction of site tracks, solar panel foundations, cable trenches, crane handstands and the substation.
MM12	Temporary Construction Compound	EIAR Chapter 4	The area to be used as the compound will be marked out at the corners using ranging rods or timber posts. Drainage runs, and associated settlement ponds will be installed around the perimeter.

Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Construction Phase</b>			
<b><i>Construction Management</i></b>			
<b>Solar Farm</b>			
MM13	River Crossings	EIAR Chapter 4	The crossing of streams and rivers for the internal solar farm underground cabling will be carried out by open trench method or trenchless methods. The method adopted at particular locations will be implemented only with the approval of Inland Fisheries Ireland (IFI). The construction will take place outside the salmon spawning period from October to April unless otherwise agreed with IFI locally.
<b>Substation and Grid Connection</b>			
MM14	Transformer Delivery	EIAR Chapter 4	The Grid Transformer(s) for the Substation will be delivered on a multi-axle special purpose tractor and trailer transport that will distribute this load over eight or more axles, which results in acceptable loads.
<b>Proposed Project</b>			
MM15	Environmental Management	Appendix 4-3	All construction works will be carried out under appropriate supervision. Works will be carried out by experienced contractors using appropriate and established safe methods of construction.
MM16	Health and Safety	EIAR Chapter 5	During construction of the Proposed Project, all staff will be made aware of and adhere to the Health & Safety Authority's ' <i>Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2013</i> '. This will encompass the use of all necessary Personal Protective Equipment and adherence to the site Health and Safety Plan which will include measures to exclude members of the public from certain areas of the site during construction.
MM17	Health and Safety	EIAR Chapter 5	Appropriate health and safety signage will be erected at locations around the site.
MM18	Health and Safety	EIAR Chapter 5	All onsite works and health and safety requirements will be carried out to an agreed standard based on ESB and Bord na Móna specifications.
MM19	Wheel Wash	EIAR Chapter 4	A designated vehicle wheel wash area will be created adjacent to the main site entrance where all HGV's will be cleaned prior to leaving the site are deemed necessary.  The wheel wash will be a proprietary wheel wash approved by the Site Engineer. Wash water will not be allowed to enter local watercourses and will be diverted to a dedicated lagoon by

Ref. No.	Reference Heading	Location	Mitigation Measure
			a sealed pipe. Any accumulated resultant sludge within the lagoon will be removed from site by a fully licenced contractor holding relevant waste collection and disposal permits.
MM20	Wastewater Management	EIAR Chapter 4	Foul sewage from the temporary facilities will be routed to covered watertight tanks designed for receiving and storing sewage with no outlet. The tanks will be sized to suit the expected use and will be installed within the construction compound. Contents and residues will be regularly emptied by a fully licenced contractor holding relevant waste collection and disposal permits. With high water tables the tanks will be calculated at design stage to omit the buoyancy risk.
MM21	Tracked Vehicles	EIAR Chapter 4	Tracked dumpers and tracked trailers will be used to transfer materials around the site and where there are suitable bearing stratum double wheeled vehicles will also be used for transport of materials from the holding areas to the work areas. Wide track bog master type excavators and track type trenchers will also be used.
MM22	Reinstatement	EIAR Chapter 4	Some overburden material will be stored temporarily adjacent to the works areas for reinstatement when the main construction activities are completed. Soil will be backfilled outside the drainage channels along track-sides and vegetated sods replaced over the surface, bedded-in, regraded, etc., to re-constitute a stable and settled ground surface on which the natural vegetation can recover and will be resistant to erosion.
MM23	Waste Materials	CEMP Section 3	A fully licensed waste contractor will be employed to remove waste from the site and will be required to provide documented records for all waste dispatches leaving the site of the proposed development.

### ***Drainage Design and Management***

#### **Solar Farm**

The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.

#### **Substation and Grid Connection**

MM24	Earthworks and potential effects on water quality	EIAR Chapter 8	<ul style="list-style-type: none"> <li>▪ <b>Surface water drainage</b> - The substation drainage will consist of an underground surface water pipe system. This system will include a number of surface water manholes, rain water pipes for the compound building roof, Class 1 Full Retention Oil Separator, an oil sensitive bund dewatering system and ACO Drains. The system will discharge into an adjacent field ditch. It is also proposed to construct a land drain, 150 mm in diameter, around the perimeter of the substation. The land drain will discharge into</li> </ul>
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Ref. No.	Reference Heading	Location	Mitigation Measure
			<p>the same location as the surface water system. In accordance with SuDS best practice, it is proposed to include two rainwater harvesting tanks within the surface water system which will comprise of a filter, an underground tank and a pump. The system allows rainwater to run down the roof and into the guttering and downpipes in the normal way before passing through the filter, which removes any leaves and debris. Rainwater is then stored in the underground tank for reuse. The proposed tanks will have a capacity of 3,800 litres.</p> <ul style="list-style-type: none"> <li>• <b>Foul water system</b> - A foul system is proposed within the station to cater for the wastewater generated in the welfare facilities of the control building. The foul system will consist of an underground pipe network, foul manholes and an 18 m<sup>3</sup> full retention foul effluent storage tank. The tank will have an associated high-level alarm which will be connected to the control building. A foul holding tank to be maintained and emptied bi-annually is the most preferable means of treating and disposing of foul waste from the site. The licensed contractor charged to empty and dispose of the waste will be the holder of a valid waste collection permit. The foul holding tank will also be vented to the atmosphere to avoid the build-up of noxious and dangerous gases.</li> <li>• <b>Potable water supply</b> - The proposed substation site is remote from the public roadway and the public water supply system. It is proposed to provide the required potable water demand of the station with a well on the site.</li> </ul>
<b>Proposed Project</b>			
MM25	Earthworks and potential effects on water quality	EIAR Chapter 8	<p>The main elements of the drainage design include the following:</p> <p>1) Drainage management</p> <ul style="list-style-type: none"> <li>▪ <b>Solar field drainage</b> - to manage rainwater runoff from below the solar panels and prevent erosion</li> <li>▪ <b>Connector Drain</b> - will allow field drainage to flow freely across the site and allow management of site discharges at a controlled rate</li> <li>▪ <b>Invertor drainage</b> - including an approved oil sensitive bund dewatering system, and an approved full retention oil separator at each invertor station</li> </ul>

Ref. No.	Reference Heading	Location	Mitigation Measure
			<ul style="list-style-type: none"> <li>▪ <b>Amenity area drainage</b> – will mimic the current drainage in the area, pedestrian pathways will be permeable floating road construction and culverts will be constructed where required</li> </ul>
MM26	Watercourse Buffers	EIAR Chapter 8	A self-imposed buffer zone for peat storage will be established around the existing field drains on site. Also, a buffer zone around field ditches and watercourses where no peat can be stored is being implemented. A 25 m buffer around field ditches and a 50 m buffer around the Mulgeeth watercourse is recommended as per industry best practice.
MM27	Vegetation filter strips	EIAR Chapter 8	Vegetation filters, that is areas of existing vegetation, accepting drainage water issuing from level spreaders as sheet flow, will remove any suspended sediment from water channelled via interceptor drains or any remaining sediment in waters channelled via swales and settlement ponds.
MM28	Swales/Collector drains	EIAR Chapter 8	Swales will be used to intercept and collect run off from construction areas of the site during the construction phase, and channel it to settlement ponds for sediment attenuation as per the drainage design.
MM29	Settlement Ponds	EIAR Chapter 8	Settlement ponds, placed either singly or a pair in series, will buffer volumes of run-off discharging from the drainage system during periods of high rainfall, by retaining water until the storm hydrograph has receded, thus reducing the hydraulic loading to water courses as per the drainage design.
MM30	Check Dams	EIAR Chapter 8	Check dams will not be used in any natural watercourses, only artificial drainage channels and interceptor drains. The check dams will be installed at regular intervals along interceptor drains to restrict flow velocity, minimise channel erosion and promote sedimentation behind the dam as per the drainage design.
MM31	Silt Fences	EIAR Chapter 8	Silt fences will be emplaced along drains and parallel to access roads edges as required and at stream / watercourse crossings. Silt fences are effective at removing heavy settleable solids. This will act to prevent entry to watercourses of sand and gravel sized sediment, released from excavation of peat and entrained in surface water runoff.
MM32	Interceptor Drains	EIAR Chapter 8	Interceptor drains will be installed up-gradient of any works areas to collect surface flow runoff and prevent it reaching excavations and construction areas of the site. It will then be directed to areas where it can be re-distributed over the ground as sheet flow as per the drainage design.
MM33	Silt Bags	EIAR Chapter 8	Dewatering silt bags will be used which allow the flow of water through while trapping any silt or sediment suspended in the water. The silt bags provide a passive non-mechanical

Ref. No.	Reference Heading	Location	Mitigation Measure
			method of removing any remaining silt contained in the potentially silt-laden water collected from works areas within the site.
MM34	Drainage Management	EIAR Chapter 8	All surface water runoff from the development will have to pass through existing site drainage features along the boundary of the bog prior to final discharge from the site.
MM35	Environmental Management	Appendix 4-4	Materials from piling operations shall be placed upstream of a cut-off drain and settlement pond as part of the drainage control system. Alternatively, where the material cannot be placed in these areas, it will be placed in a designated repository. All construction works will be undertaken in accordance with the Erosion and Sediment Control Plan developed for the project.
MM36	Environmental Management	Appendix 4-4	Excavated material will not be stockpiled within 10 m of any watercourse
MM37	Excavation Dewatering	EIAR Chapter 8	<ul style="list-style-type: none"> <li>▪ If required, pumping of excavation inflows will prevent build-up of water in the excavation;</li> <li>▪ The interceptor drainage will be discharged to the existing field drainage system or onto the bog surface via a settlement pond;</li> <li>▪ The pumped water will be discharged via settlement pond/silt bags adjacent to excavation areas;</li> <li>▪ There will be no direct discharge to the existing drainage network and therefore no risk of hydraulic loading or contamination will occur; and,</li> </ul>
MM38	Hydrocarbons	EIAR Chapter 8	<ul style="list-style-type: none"> <li>▪ All bulk storage of fuels, lubricants and hydraulic fluids will occur at the contractor's compound(s), which will be fenced and have a lockable gate, thereby ensuring that the area in which fuels, lubricants and hydraulic fluids are stored will be properly secured against unauthorised access or vandalism;</li> <li>▪ The storage area within the compound will contain a small bund lined with an impermeable membrane to prevent any contamination of the surrounding soils and vegetation and of groundwater;</li> <li>▪ Fuels and oils will be carefully handled to avoid spillages;</li> <li>▪ Any spillage of fuels, lubricants or hydraulic oils will be immediately contained, and the contaminated soil removed from the site and disposed of appropriately;</li> <li>▪ Any waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or recycling;</li> </ul>



Ref. No.	Reference Heading	Location	Mitigation Measure
MM39	Plant and equipment inspections	EIAR Chapter 8	Site plant will be regularly inspected for leaks and fitness for purpose; and, an emergency plan for the construction phase to deal with accidental spillages will be contained within Environmental Management Plan. Spill kits will be available to deal with accidental spillages
MM40	Re-Fuelling	EIAR Chapter 8	<ul style="list-style-type: none"> <li>▪ Minimal refuelling or maintenance of construction vehicles or plant will take place on site. Off-site refuelling will occur at a controlled fuelling station;</li> <li>▪ On site re-fuelling will be undertaken using a double skinned bowser with spill kits on the ready for accidental leakages or spillages;</li> <li>▪ On site re-fuelling will be undertaken by suitably trained personnel only;</li> <li>▪ Fuels stored on site will be minimised. Storage areas where required will be bunded appropriately for the fuel storage volume for the time period of the construction and fitted with a storm drainage system and an appropriate oil interceptor;</li> <li>▪ The electrical substation will be bunded appropriately to the volume of oils likely to be stored and to prevent leakage of any associated chemicals and to groundwater or surface water. The bunded area will be fitted with a storm drainage system and an appropriate oil interceptor;</li> <li>▪ The plant used during construction will be regularly inspected for leaks and fitness for purpose;</li> <li>▪ An emergency plan for the construction phase to deal with accidental spillages will be contained within the Construction and Environmental Management Plan. Spill kits will be available to deal with and accidental spillage in and outside the re-fuelling area.</li> </ul>
MM41	Spillage of Hydrocarbons	EIAR Chapter 8	Appropriate spill control equipment, such as oil soakage pads, specialist absorbent mats / pillows and granules for containment will be available on site to deal with any accidental spillage and emergency response procedures will be put in place; Designated contractors' personnel will be trained and certified in oil spill control and clean up procedures and in the proper and safe disposal of any waste generated through such an event.
MM42	Wastewater Disposal	EIAR Chapter 8	<ul style="list-style-type: none"> <li>▪ A self-contained port-a-loo with an integrated waste holding tank will be used at each of the site compounds, maintained by the providing contractor, and removed from site on completion of the construction works;</li> <li>▪ All stored foul water will be removed from site to a licenced facility for appropriate treatment and disposal; and,</li> <li>▪ No foul water will be discharged at the site.</li> </ul>

Ref. No.	Reference Heading	Location	Mitigation Measure
MM43	Concrete Deliveries and Management	EIAR Chapter 8	No batching of wet-cement products will occur on site. Ready-mixed supply of wet concrete products will be used and where possible, pre-cast elements for culverts and concrete works will be used.
MM44	Concrete Deliveries and Management	EIAR Chapter 8	No washing out of any plant used in concrete transport or concreting operations will be allowed on-site.
MM45	Concrete Deliveries and Management	EIAR Chapter 8	Where concrete is delivered on site, only the chute need be cleaned, using the smallest volume of water possible. No discharge of cement contaminated waters to the construction phase drainage system or directly to any artificial drain or watercourse will be allowed. Chute cleaning water is to be directed into a dedicated lined washout area. This lined area will be removed from site once the construction phase is complete.
MM46	Concrete Deliveries and Management	EIAR Chapter 8	Weather forecasting will be used to plan dry days for pouring concrete. Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event
MM47	Concrete Deliveries and Management	EIAR Chapter 8	Where possible pre-cast elements for culverts and concrete works will be used
<b>Felling</b>			
<b>Solar Farm</b>			
The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM48	Felling	CEMP Section 3	Machine combinations will be chosen which are most suitable for ground conditions at the time of felling and to minimise soils disturbance
MM49	Felling	CEMP Section 3	Checking and maintenance of roads and culverts will be on-going through any felling operation. No tracking of vehicles through watercourses will occur, as vehicles will use road infrastructure and existing watercourse crossing points. Where possible, existing drains will not be disturbed during felling works

Ref. No.	Reference Heading	Location	Mitigation Measure
MM50	Felling	CEMP Section 3	Branches, logs or debris will not be allowed to build up in aquatic zones. All such material will be removed when harvesting operations have been completed, but care will be taken to avoid removing natural debris deflectors.
MM51	Felling	CEMP Section 3	In areas particularly sensitive to erosion, it may be necessary to install double or triple sediment traps. This measure will be reviewed on site during construction
MM52	Felling	CEMP Section 3	Drains and silt traps will be maintained throughout all felling works, ensuring that they are clear of sediment build-up and are not severely eroded. Correct drain alignment, spacing and depth will ensure that erosion and sediment build-up are minimised and controlled
MM53	Felling	CEMP Section 3	Branches, logs or debris will not be allowed to build up in aquatic zones. All such material will be removed when harvesting operations have been completed, but care will be taken to avoid removing natural debris deflectors.

### ***Peat, Subsoils and Bedrock***

#### **Solar Farm**

The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.

#### **Substation and Grid Connection**

The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.

#### **Proposed Project**

MM54	Topsoil/Peat and Subsoil Excavation	EIAR Chapter 7, Appendix 7-1	<ul style="list-style-type: none"> <li>▪ Placement of project infrastructure that require excavation in areas with shallower peat where possible (mitigation by avoidance);</li> <li>▪ The peat and subsoil which will be removed during the construction phase will be localised to the infrastructure footprint location and access roads;</li> <li>▪ The absence of designated sites, such as NHAs and SACs, within the Proposed Project site ensures no impacts to the land, soil or geology within a designated site as a result of the Proposed Project;</li> <li>▪ A minimal volume of peat and subsoil will be removed to allow for infrastructural work to take place in comparison to the total volume present on the site due to optimisation of the layout by mitigation by design;</li> <li>▪ Excavated peat will only be moved short distances from the point of excavation to peat and soil repositories within the site;</li> <li>▪ Stockpiling of materials and the parking of plant on peat will be avoided;</li> </ul>
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Ref. No.	Reference Heading	Location	Mitigation Measure
			<ul style="list-style-type: none"> <li>▪ Tracking machinery on peat will be minimised, and bog mats will be used where required;</li> <li>▪ Low bearing pressure machines will be used;</li> <li>▪ The length of unsupported excavations in peat will be minimised;</li> <li>▪ Side slopes of cuttings in peat will be trimmed back to stable permanent side slopes. In soft potentially unstable peat a berm of mineral soil will be constructed across the top of the cutting slopes to support the peat face;</li> <li>▪ No work will be carried out down slope of a peat excavation at any time;</li> <li>▪ Water build up in excavations will be avoided;</li> <li>▪ Peat excavations will not be left unsupported for extended periods or overnight;</li> <li>▪ Vibrating rollers will not be used on site (dead weight permitted);</li> <li>▪ String lines with posts at approximately 10m centres downslope of works in deep peat areas will be installed prior to commencement of construction and remain in place for the duration of the works to monitor for any potential movements;</li> <li>▪ Upslope cut-off drains will be installed in advance of construction;</li> <li>▪ The existing drainage patterns in the peat will be maintained as far as is practicable;</li> <li>▪ There will be no uncontrolled discharges of water onto peat;</li> <li>▪ Construction of any required settlement ponds will be volume neutral, and all excess material will be used locally to form pond boundary bunds, and for surrounding landscaping;</li> </ul>
MM55	Peat Instability and Failure	Appendix 7-1	<ul style="list-style-type: none"> <li>▪ Geotechnical Engineer to provide a Geotechnical Induction to all contractor supervisory staff.</li> <li>▪ Site Geotechnical Supervisor will be appointed and is to carry out supervision of site works as required. The Site Geotechnical Supervisor will be required to inspect that works are carried out in accordance with the requirements of the PSRA, identifying new risks and ensuring all method statements for works are in place and certified.</li> <li>▪ Retain a Site Geotechnical Folder which contains all the geotechnical aspects of the site.</li> </ul>

Ref. No.	Reference Heading	Location	Mitigation Measure
MM56	Leakages and Spillages	EIAR Chapter 7	<ul style="list-style-type: none"> <li>▪ Minimal refuelling or maintenance of construction vehicles or plant will take place on site during the removal of vegetation;</li> <li>▪ On site re-fuelling will be undertaken using a double skinned bowser with spill kits on the ready for accidental leakages or spillages;</li> <li>▪ Fuels stored on site will be minimised. Storage areas where required will be bunded appropriately for the fuel storage volume for the time period of the construction and fitted with a storm drainage system and an appropriate oil interceptor;</li> <li>▪ The electrical control building will be bunded appropriately to the volume of oils likely to be stored, and to prevent leakage of any associated chemicals and to groundwater or surface water. The bunded area will be fitted with a storm drainage system and an appropriate oil interceptor;</li> <li>▪ The plant used during construction will be regularly inspected for leaks and fitness for purpose; and,</li> <li>▪ An emergency plan for the construction phase to deal with accidental spillages will be contained within the Construction Environmental Management Plan. Spill kits will be available to deal with any accidental spillage in and outside the re-fuelling area.</li> </ul>
MM57	Vegetation Removal	EIAR Chapter 7	<ul style="list-style-type: none"> <li>▪ Minimisation of the site footprint and hence, amount of vegetation clearing required will be undertaken;</li> <li>▪ Extracted/excavated peat will only be moved short distances from the point of excavation to peat and peat repositories within the site;</li> <li>▪ Stockpiling of materials and the parking of plant on peat will be avoided;</li> <li>▪ Tracking machinery on peat will be minimised, and bog mats will be used where required;</li> <li>▪ Low bearing pressure machines will be used; and,</li> <li>▪ The existing drainage patterns in the peat will be maintained as far as is practicable.</li> </ul>

### ***Flora and Fauna***

#### **Solar Farm**

The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.

Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM58	Rehabilitation Plan	EIAR Chapter 6	<p>A revised Draft Rehabilitation Plan will be developed taking account of the proposed project. The integration of the site-specific drainage plan and the peatland rehabilitation plan will be a key aspect to the success of any active peatland formation.</p> <p>The implementation of the rehabilitation plan by Bord Na Mona as a component part of the proposal will allow for the generation of areas of <i>Sphagnum</i> rich vegetation in low-lying areas of the site and result in a long-term positive effect. The main aim of the rehabilitation plan would be for the promotion of the development of sphagnum-rich poor fen habitat within the wet areas of the site, outside the development footprint. In order to ensure the measures within the rehabilitation plan work effectively, the Draft Rehabilitation Plan identifies that <i>'there will be annual assessments of the site to determine the progress of the rehabilitation work and requirements for further enhancement measures'</i>.</p>
MM59	Invasive Species	EIAR Chapter 6	<ul style="list-style-type: none"> <li>▪ All plant and equipment employed on the construction site (e.g. excavator, footwear, etc.) will be thoroughly cleaned down using a power washer unit prior to arrival on site to prevent the spread of invasive plant species</li> <li>▪ All washing must be undertaken in areas with no potential to result in the spread of invasive species. This process will be detailed in the contractor's method statement.</li> <li>▪ Any soil and topsoil required on the site will be sourced from a stock that has been screened for the presence of any invasive species and where it is confirmed that none are present.</li> <li>▪ All planting and landscaping associated with the Proposed Project shall avoid the use on invasive shrubs such as Rhododendron.</li> <li>▪ The bio-security requirements in relation to all plant and equipment, as set out in Inland Fisheries Ireland's Bio-Security Protocol (2010), will be implemented as required. A copy of this Protocol is included with the CEMP in Appendix 3-4.</li> </ul>

Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Noise</b>			
<b>Solar Farm</b>			
The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM60	Construction Phase Noise Control	EIAR Chapter 5	Equipment will be sensitively located, taking account of local topography and natural screening.
MM61	Construction Phase Noise Control	EIAR Chapter 5	Construction noise will be controlled by prescribing that standard construction work will be restricted to the specified working hours. Any construction work carried out outside of these hours shall be restricted to activities that will not generate noise of a level that may cause a nuisance. The phasing of works has also been designed with regard to avoidance of noise impacts.
MM62	Construction Phase Noise Control	EIAR Chapter 5	Plant will be selected taking account of the characteristics of noise emissions from each item. All plant and machinery used on the site shall comply with relevant E.U. and Irish legislation in relation to noise emissions.
MM63	Construction Phase Noise Control	EIAR Chapter 5	Operation of plant: all construction operations shall comply with guidelines set out in British Standard documents 'BS 5338: Code of Practice for Noise Control on Construction and Demolition Sites' and 'BS5228-1:2009+A1:2014: Code of Practice for Noise and Vibration Control on Construction and Open Sites'. The correct fitting and proper maintenance of silencers and/or enclosures, the avoidance of excessive and unnecessary revving of vehicle engines, and the parking of equipment in locations that avoid possible impacts on noise-sensitive locations will be employed.
MM64	Construction Phase Noise Control	EIAR Chapter 5	Training and supervision of operatives in proper techniques to reduce site noise, and self-monitoring of noise levels.
MM65	Construction Phase Noise Control	EIAR Chapter 10	A site representative shall be appointed who is responsible for matters relating to noise and vibration
MM66	Construction Phase Noise Control	EIAR Chapter 10	<ul style="list-style-type: none"> <li>▪ The best means practicable, including proper maintenance of plant, will be employed to minimise the noise produced by on site operations.</li> </ul>

Ref. No.	Reference Heading	Location	Mitigation Measure
			<ul style="list-style-type: none"> <li>▪ All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the contract.</li> <li>▪ Compressors will be attenuated models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic tools shall be fitted with suitable silencers.</li> <li>▪ Machinery that is used intermittently will be shut down or throttled back to a minimum during periods when not in use.</li> <li>▪ Any plant, such as generators or pumps, which is required to operate outside of general construction hours will be surrounded by an acoustic enclosure or portable screen.</li> <li>▪ During the course of the construction programme, supervision of the works will include ensuring compliance with the limits detailed in Table 11-1 using methods outlined in British Standard BS 5228-1:2009+A1:2014 <i>Code of practice for noise and vibration control on construction and open sites - Noise</i>.</li> <li>▪ The hours of construction activity will be limited to avoid unsociable hours where possible. Construction operations shall generally be restricted to between 7:00hrs and 19:00hrs weekdays and between 7:00hrs and 13:00hrs on Saturdays. However, to ensure that optimal use is made of good weather periods or at critical periods within the programme it could occasionally be necessary to work out of these hours</li> </ul>
MM67	Vibration	EIAR Chapter 10	It is recommended that vibration from construction activities be limited to the values set out in 10.2 of the EIAR.
MM68	Vibration	EIAR Chapter 10	Site access roads need to be kept even to mitigate the potential for vibration from lorries.
<b>Air Quality/Dust</b>			
<b>Solar Farm</b>			
The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			



Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Proposed Project</b>			
MM69	Dust Emissions	EIAR Chapter 5,9	Truck wheels will be washed to remove mud and dirt before leaving the site.
MM70	Dust Emissions	EIAR Chapter 5,9	Solar panels and construction materials will be transported to the site on specified haul routes only and a speed limit will be implemented.
MM71	Dust Emissions	EIAR Chapter 5,9	In periods of extended dry weather, dust suppression may be necessary along haul roads and at works areas to ensure dust does not cause a nuisance. If necessary, water will be used from settlement ponds in the site's drainage system and will be pumped into a bowser or water spreader to dampen down haul roads and site compounds to prevent the generation of dust where required. Water bowser movements will be carefully monitored to avoid, insofar as reasonably possible, increased runoff.
MM72	Dust Emissions	EIAR Chapter 9	<ul style="list-style-type: none"> <li>▪ All plant and materials vehicles shall be stored in dedicated areas (on site).</li> <li>▪ Areas of excavation will be kept to a minimum, and stockpiling will be minimised by coordinating excavation, spreading and compaction.</li> <li>▪ The transport of construction materials to the site that have significant potential to cause dust, will be undertaken in tarpaulin or similar covered vehicles where necessary.</li> </ul>
MM73	Exhaust Emissions	EIAR Chapter 9	<ul style="list-style-type: none"> <li>▪ All construction vehicles and plant will be maintained in good operational order while onsite, thereby minimising any emissions that arise.</li> <li>▪ All machinery will be switched off when not in use.</li> <li>▪ Aggregate materials for the construction of site access tracks and all associated infrastructure will all be locally sourced, where practicable, which will further reduce potential emissions.</li> </ul>
<b><i>Landscape and Visual</i></b>			
<b>Solar Farm</b>			
MM74	Glint and Glare	EIAR Chapter 5	If glint and glare exceedances are experienced at sensitive receptors, a site visit will be undertaken firstly to determine the level of occurrence and existing screening. If glint and glare is found to be occurring, suitable mitigation measures such as screening can be employed to limit the incidence or duration of glint and glare at the affected property.
<b>Substation and Grid Connection</b>			
MM75	Visual	EIAR Chapter 11	Additional planting around the substation will also reduce the visibility of the substation.
<b>Proposed Project</b>			
MM76	Visual	EIAR Chapter 11	Extensive screening around the site will be retained

Ref. No.	Reference Heading	Location	Mitigation Measure
<b>Traffic</b>			
<b>Solar Farm</b>			
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<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM77	Sourcing Aggregate	EIAR Chapter 5	Aggregate materials for the construction of any additional site tracks will be obtained from locally within the surrounding area of the project site. This will significantly reduce the distance and number of delivery vehicles required to access the site.
MM78	Phased Development	EIAR Chapter 5	Phased development will be employed to allow for construction traffic to be managed and to minimise the volume of construction traffic using the road network at any one time. The proposed phasing is set out in Section 4.8 of the EIAR.
MM79	Traffic Management Plan (TMP)	EIAR Chapter 13	A detailed Traffic Management Plan (TMP), incorporating all the mitigation measures set out in the Outline TMP submitted as part of the CEMP, included in Appendix 4.4 of this EIAR, will be finalised and confirmatory detailed provisions in respect of traffic management agreed with the roads authority.
MM80	Traffic Management Co-Ordinator	EIAR Chapter 13	A competent Traffic Management Coordinator will be appointed for the duration of the project and this person will be the main point of contact for all matters relating to traffic management.
MM81	Liaison with the relevant local authority	EIAR Chapter 13	Liaison with the relevant local authority including the roads section of local authorities that the delivery routes traverse.
MM82	Travel Plans for Construction Workers	EIAR Chapter 13	The construction company will be required to provide a travel plan for construction staff, which will include the identification of a routes to / from the site and identification of an area for parking.
MM83	Temporary traffic signs	EIAR Chapter 13	As part of the traffic management measures temporary traffic signs will be put in place at all key junctions, including the access junction on the N15. All measures will be in accordance with the "Traffic Signs Manual, Chapter 8 - Temporary Traffic Measures and Signs for Road Works" (DoT now DoTT&S) and "Guidance for the Control and Management

Ref. No.	Reference Heading	Location	Mitigation Measure
			of Traffic at Roadworks" (DoTT&S). A member of construction staff (flagman) will be present at key junctions during peak delivery times.
MM84	Additional measures	EIAR Chapter 13	Various additional measures will be put in place in order to minimise the effects of the development traffic on the surrounding road network including wheel washing facilities on site and sweeping / cleaning of local roads as required.
<b>Cultural Heritage</b>			
<b>Solar Farm</b>			
The mitigation measures related to the Solar Farm are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Substation and Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM85	Archaeology	EIAR Chapter 12	If an archaeological site/artefact is detected during monitoring it will be preserved by record (archaeologically excavated) and therefore permanently removed with a full record made of same
<b>Operational Phase</b>			
<b>Solar Farm</b>			
MM86	Flora and Fauna	EIAR Chapter 6	<p>Following construction of the solar array, the underlying peat will be subject to a revegetation plan in order to stabilise the peat, thereby reducing suspended solids generation and erosion.</p> <p>Revegetation will be facilitated through the establishment of semi-natural grassland beneath the solar panels using a wild flower pollinator friendly seed mix or by using 'Green Hay' in combination with fertiliser and nursery crop. The species mix will comprise of a variety of plant species that will grow on peatland and contribute to an enhancement in biodiversity. In some area, facilitation of natural revegetation may occur where ground conditions are suitable and existing vegetation cover sufficient to prevent suspended solids runoff.</p>

Ref. No.	Reference Heading	Location	Mitigation Measure
			It is proposed to undertake active management of the raised bog to the north of the development site but within the study area. This will include the removal of invasive conifer species and the blocking of existing drainage channels where feasible and appropriate.
<b>Grid Connection</b>			
The mitigation measures related to the Substation and Grid Connection are captured under the 'Proposed Project' heading below as this element is inherently connected and designed for the entire project works areas.			
<b>Proposed Project</b>			
MM87	Exhaust Emissions	EIAR Chapter 9	Any vehicles or plant brought onsite during the operational phase will be maintained in good operational order, thereby minimising any emissions that arise.
MM88	Roads	EIAR Chapter 13	A post construction survey of roads will be carried out. The timing of these surveys will be agreed with the local authority. All road surfaces and boundaries will be re-instated to pre-development condition, as agreed with the local authority engineers.