



APPENDIX 5-2

**OFFSHORE ENVIRONMENTAL
MANAGEMENT PLAN)**

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GLOSSARY

ACRONYMS AND ABBREVIATIONS

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GLOSSARY

Term	Definition
Sceirde Rocks Offshore Wind Farm ("The Project")	<p>Sceirde Rocks Offshore Wind Farm (The Project) is comprised of an Offshore Site and an Onshore Site. The transition between the Offshore and Onshore Sites (referred to as the Landfall) is the location at which the offshore export cable and communication cables emerge from the trenchless landfall duct and enter the Transition Joint Bay (TJB). The Offshore Site refers to the Offshore Array Area (OAA) and Offshore Export Cable Corridor (OECC) and the infrastructure within the OAA and the OECC.</p> <p>The OAA infrastructure will include 30 wind turbine generators (WTG), an offshore substation (OSS), 31 Gravity Base Structure (GBS) foundations which support the WTGs and OSS, and Inter-array Cables (IACs) and cable protection. The OECC infrastructure will include Offshore Export Cable (OEC) and cable protection</p>
The Applicant	In reference to planning – Fuinneamh Sceirde Teoranta (FST)
Offshore Export Cable Corridor	The Offshore Export Cable Corridor (OECC) is approximately 62 km in length, approximately 1 km wide along the majority of its length and has a total area of approximately 73 km ² .
Landfall	The transition between the Offshore and Onshore Developments (referred to as the Landfall) is the location at which the offshore export cable and communication cables emerge from the trenchless landfall duct.
Environmental Impact Assessment (EIA)	EIA is a process used to evaluate the potential environmental effects of a proposed project ensures that environmental considerations are integrated into the planning and decision-making stages, helping to minimize negative impacts on the environment and promote sustainable development
Resource and Waste Management Plan (RWMP)	<p>The Irish equivalent of a Waste Management Plan (</p> <p>WMP)</p>

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AMP	Archaeological Management Plan
BWM	Ballast Water Management
COLREG	International Regulations for the Prevention of Collision at Sea
EC	Export Cable
ECoW	Environmental Clerk of Works
EIAR	Environmental Impact Assessment Report
ERCoP	Emergency Response Co-operation Plan
FMMS	Fisheries Management and Mitigation Strategy
FST	Fuinneamh Sceirde Teoranta
GBS	Gravity Base Structure
HAT	Highest Astronomical Tide
HDD	Horizontal Direct Drilling
HMR	Helicopter Main Route
HNS	Hazardous Noxious Substance
IAA	Irish Aviation Authority
IAC	Inter-array Cable
LMP	Lighting and Marking Plan
MARPOL	International Convention for the Prevention of Pollution from Ships
MINNSMP	Marine Invasive Non-Native Species Management Plan
MMMP	Marine Mammal Mitigation Protocol
MPCP	Marine Pollution Contingency Plan
NM	Nautical Mile
NIS	Natura Impact Statement
OAA	Offshore Array Area

OECC	Offshore Export Cable Corridor
OEMP	Offshore Environmental Management Plan
OSS	Offshore Substation
PAD	Protocol for Archaeological Discoveries
RWMP	Resource Waste Management Plan
SOLAS	International Regulations for the Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plans
TJB	Transition Joint Bay
UXO	Unexploded Ordnance
VMP	Vessel Management Plan
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

1. INTRODUCTION

1.1 Background

This Offshore Environmental Management Plan (OEMP) has been prepared by Xodus on behalf of Fuinneamh Sceirde Teoranta (FST) (hereafter referred to as the Applicant), for the construction, operation and maintenance, and decommissioning of the Sceirde Rocks Offshore Wind Farm, and all its offshore component parts within the Offshore Site. The Offshore Site refers to the Offshore Array Area (OAA) and Offshore Export Cable Corridor (OECC) and the infrastructure within the OAA and the OECC. The OEMP provides the over-arching framework for on-site environmental management during construction, operation and maintenance and decommissioning of the Offshore Site.

The OEMP has been prepared in conjunction with the Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement (NIS) which will accompany the application for development permission for the Project to be submitted to An Bord Pleanála.

Should the Sceirde Rocks Offshore Wind Farm secure development permission, the OEMP will be updated, in line with all conditions and obligations which apply to any grant of permission. The OEMP should be read in conjunction with the EIAR and the planning drawings. The OEMP will also require updating by the appointed contractor in order to identify, assess and satisfy the contract performance criteria as set out by the various stakeholders. The OEMP, due to its structure and nature, will require constant updating and revision throughout the various phases of the project from construction to operation and maintenance, and decommissioning.

The appointed contractor will be required to implement all of the requirements set out in this OEMP and its appendices. The OEMP may be updated and revised throughout the construction, operation and maintenance, and decommissioning phases, but all future iterations must meet or exceed the standards and requirements set out in this document and the Applicant must be satisfied that all requirements set out in this document can and will be implemented in full by the appointed contractor.

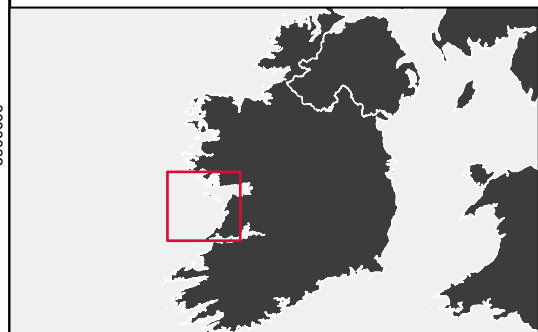
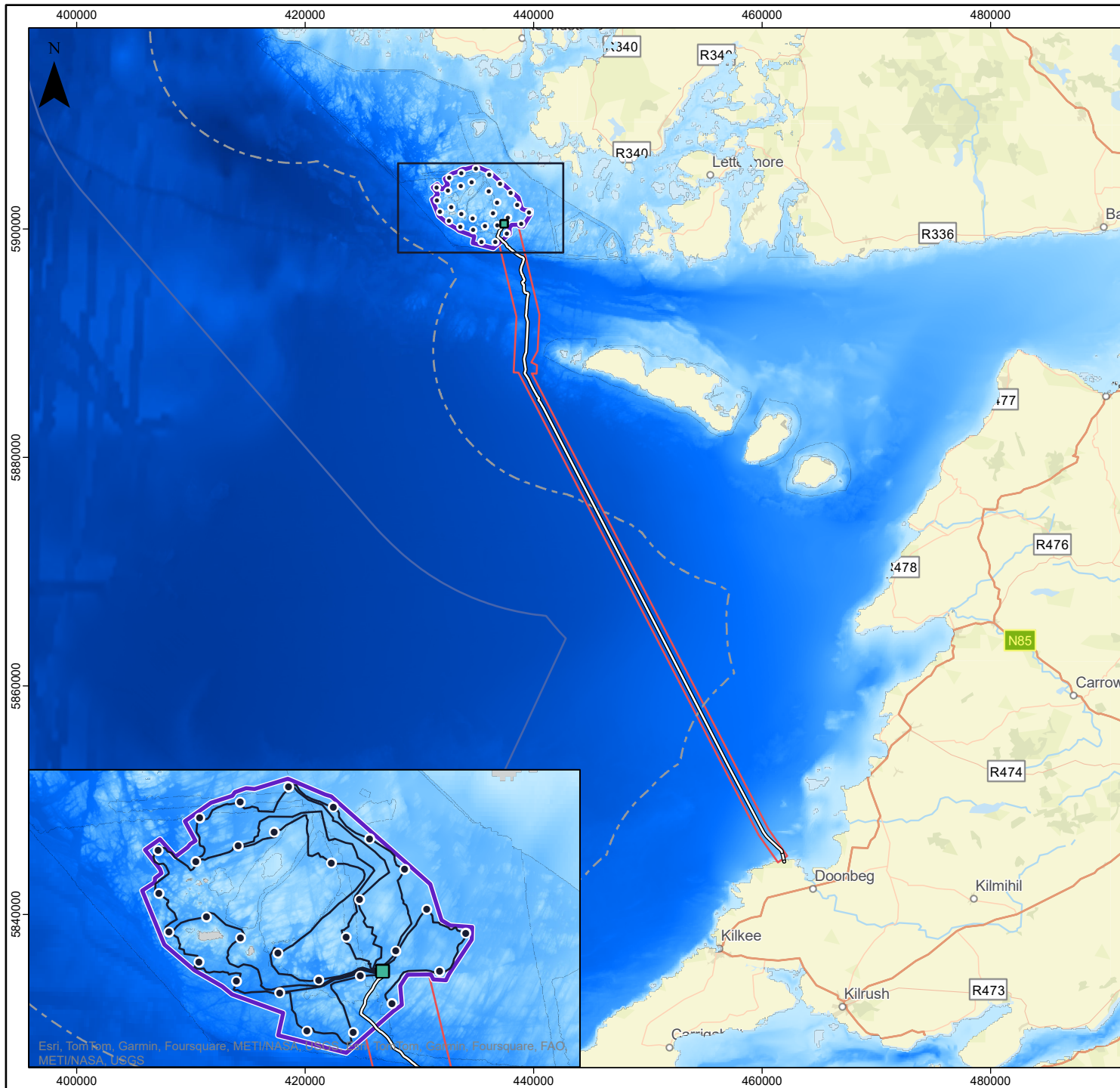
1.2 Project Description

Sceirde Rocks Offshore Wind Farm ('the Project') is comprised of the Offshore Site and the Onshore Site. The transition between the Offshore and Onshore Sites (referred to as the Landfall) is the location at which the Offshore Export Cable (OEC) and communication cables emerge from the trenchless landfall duct and enter the transition joint bay (TJB). This OEMP only considers the Offshore Site.

Sceirde Rocks Offshore Wind Farm EIAR, Chapter 5: Project Description describes the design details of the Offshore Site and all its component parts, situated off the South coast of Ireland, close to Connemara, Co. Galway.

The Offshore Site comprises the OAA and OECC infrastructure.

The OAA infrastructure includes 30 wind turbine generators (WTG), an offshore substation (OSS), 31 gravity base structure (GBS) foundations which support the WTGs and OSS, and inter-array cables (IACs) and cable protection. The OECC infrastructure includes the offshore export cable (OEC) and cable protection. Figure 1 shows the layout of the Offshore Site.



LEGEND

- Offshore Array Area
- Offshore Export Cable Corridor
- Ireland 6 NM limit
- Ireland 12 NM Limit
- Extent of Inset Map
- Offshore Export Cable
- Inter Array Cable Routes
- Offshore Substation (OSS)
- Wind Turbine Generators (WTG)
- Bathymetry (m)
 - 0
 - 130

0 3 6 nm

0 6 12 km

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PROJECT TITLE

Sceirde Rocks

MAP TITLE

Offshore Site

VER	REMARKS	DATE	Drawn	Approved
1	DRAFT	06/12/2024	BQ	EE

DRAWING NO

Figure 1-1

SCALE	PAPER SIZE	DATUM	PROJECTION
1:500,000	A4	WGS 84	UTM 29N

This map is produced by Fuinneamh Sceirde Teoranta (FST). No reproduction may be made in whole or in part without permission.

1.3

Construction Programme

A summary of the phases of the Offshore Site construction programme is shown in Table 1-1. The construction programme and durations of the campaigns provided are estimates and are subject to change depending on factors such as contractor / vessel availability, ground and weather conditions and any supply chain or logistical issue that may arise. Furthermore, specific details on installation methodologies will vary depending on the technologies adopted and may change due to improvements in both the technology and supply chain.

Ports to be used during the construction phase are not yet confirmed. Shannon Foynes Port, Rossaveel, Cork and Belfast harbours, along with ports in the UK and continental Europe, are all being considered as ports which will support construction activities for the Project. This is subject to project-specific requirements and the availability of ports and other local facilities during construction, a multi-port approach may also be considered prior to commencement of construction.

Ports to be used during the O&M phase are not yet determined and will be confirmed post consent. However, it is assumed that Rossaveel Harbour will be the primary O&M base.

Table 1-1 Offshore Site activities from pre-installation to commissioning

Activity	Description
Pre-construction surveys and site investigations	Additional pre-construction surveys may be undertaken, including geophysical, geotechnical, benthic, unexploded ordnance (UXO) and metocean investigations. Other surveys, e.g. for birds, may also be undertaken as required.
Site preparation	Seabed preparations will be required prior to the installation of GBS foundations and offshore cable infrastructure. This may include dredging, boulder clearance and UXO clearance. Site preparation works also include placement of rock to form a stonebed for GBS foundations and for WTIV operations.
GBS foundation and sub-structure installation	Prior to installation at the OAA, the GBS foundations are proposed to be temporarily anchored, at a temporary anchor facility which is subject to a separate licence and assessment process. Foundations will be towed to site and installed ahead of the WTG and OSS topside structure.
OSS installation/commissioning	OSS topside structure is installed after the installation of the GBS foundation. Following installation of the OSS and connection to the inter-array and export cabling, a process of testing and commissioning will be undertaken.
Offshore export cable (OEC) – landfall and offshore installation	<p>Following the completion of the necessary onshore works (including the necessary landfall preparations) and the offshore site preparations, the OEC will be laid from the landfall out to the OSS, with the potential for pre-trenching works to be undertaken ahead of cable installation.</p> <p>The export cable will be buried wherever possible and may be installed using a variety of techniques detailed further in section 5.6.1 Chapter 5: Project Description of the EIAR. Following cable lay and burial (which may occur simultaneously or sequentially)</p>

	external cable protection will be installed, as necessary. Further details on cable protection are provided in the chapter 'Project Description' of the EIAR.
Inter-array cable installation	<p>The inter-array cables will be installed between the WTGs and between WTGs and the OSS.</p> <p>The installation techniques for the inter-array cables will be similar to that of the OEC.</p>
WTG installation/commissioning	The WTGs will be fabricated onshore and transported to the OAA for installation. Following the integration of the WTG components and connection of the fully integrated WTG to the inter-array cabling, a process of testing and commissioning will be undertaken.

It is estimated that the construction timeline will be in the region of 40 months, this is subject to variable such as availability of suitable weather windows, supply chain restrictions and other timeline constraints. It is anticipated that the construction campaign will consist of the following split;

- Year 1
 - Pre-construction site surveys
 - Landfall Construction
- Year 2
 - GBS Foundation Seabed Preparation
 - WTIV Stonebed Rock Placement
 - GBS Transportation `
- Year 3
 - GBS Foundation Installation
 - OSS Installation, Hook Up and Commissioning
 - EXC Installation/Burial
 - IAC Installation/Burial
 - EXC Post Installation Rock Berm Protection
- Year 4
 - IAC Post Installation Rock Berm Protection
 - WTG Installation and Commissioning

Prior to construction a detailed construction programme will be developed and this will be amended to this OEMP and any associated plans or procedures.

1.4

Purpose of Document

The OEMP will provide the over-arching framework for on-site environmental management during the construction and operation of the Offshore Site. The OEMP will be in accordance with the application to ensure all environmental commitments stated in the EIAR are implemented during the construction, operational and maintenance stages of the Offshore Site. The purpose of the OEMP is to set out the approach to environmental management and mitigation in respect of the Offshore Site. The OEMP is formed of several topic specific management plans that cover the environmental management of the Offshore Site and are appended to this overarching OEMP. These plans include:

- Marine Pollution Contingency Plan Appendix 5-3
- Emergency Response Co-operation Plan Appendix 5-4
- Waste Management Plan Appendix 5-5
- Marine Mammal Mitigation Plan Appendix 5-6
- Fisheries Management and Mitigation Strategy Appendix 5-7

- Marine Invasive Non-Native Species Management Plan Appendix 5-8
- Lighting and Marking Plan Appendix 5-9
- Vessel Management Plan Appendix 5-10
- Archaeological Management Plan Appendix 5-11

The OEMP will be a 'live' document intended to be further updated and changes to support the construction programme as required. Triggers for amendments to the OEMP will include:

- When there is a perceived need to improve performance in an area of environmental impact;
- As a result of changes in environmental legislation applicable and relevant to the Offshore Site;
- Where the outcomes from auditing establish a need for change;
- Where Work Method Statements identify changes to a construction methodology to address high environmental risk; and
- As a result of an incident or complaint occurring that necessitates an amendment.

Any revisions will be recorded in the OEMP Revision Register.

The OEMP, including its appendices, provide information as to how environmental management measures will be managed and implemented in terms of the roles and responsibilities of the Applicant's personnel, contractors and subcontractors, for the protection of environmental interests during the construction, operation and maintenance and decommissioning of the Offshore Site. It includes the regular environmental reporting mechanisms that will be put in place and management and mitigation measures that will be implemented during the Project. The OEMP will also include the reporting mechanism to provide any relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.

1.5

OEMP Targets and Objectives

The following key targets and objectives will inform the final detailed design should the Project secure development permission and proceed to the construction phase. This includes consideration of the buildability of the designs that emerge.

- Adopt a sustainable approach to construction and ensure sustainable sources for materials supply where possible;
- Keeping the Offshore Site free from obstruction and debris;
- Avoidance of any pollution incident or near miss as a result of working in the marine environment and having emergency measures in place;
- Correct fuel storage and refuelling procedures to be followed;
- Air and noise pollution prevention to be implemented;
- Construction methods and designs will be altered where it is found there is an adverse effect on the environment;
- Good waste management and housekeeping to be implemented;
- Using recycled materials if possible, e.g. excavated stone, soil and subsoil material;
- Avoidance of vandalism;
- Monitoring of the works and any adverse effects that it may have on the environment;
- Provide adequate environmental training and awareness for all project personnel;
- Keep impact of construction on the local and marine environment and wildlife to a minimum;
- Comply with all relevant water quality legislation;
- Ensure construction works and activities are completed in accordance with the mitigation and best practice approach presented in the EIAR and associated planning documentation; and

- Ensure construction works and activities are completed in accordance with any planning conditions for the Project.

It is envisaged that copies of the OEMP will be stored at:

- The Applicant's Project office;
- Contractor's and Subcontractors Project office;
- With the Environmental Clerk of Works (ECoW(s)); and
- All construction, operation and maintenance and decommissioning vessels used for Offshore
- Site works.

1.6

Development Permission Compliance

The OEMP will fulfil the requirements of the Development Permission conditions once granted. Details of where specific Development Permission condition requirements are addressed are provided in Table 1-2.

Table 1-2 Development Permission conditions relevant to the OEMP

Planning Permission Reference	Condition	Relevant Section
To be added post-consent		

1.7

Scope of the OEMP

The OEMP and its appendices will cover the following topics, but not limited to:

- Offshore Site personnel, roles, responsibilities and chain of command in relation to environmental management, including contractors or sub-contractors;
- The competence and training expected of all Offshore Site personnel, including contractors and subcontractors;
- Procedures for communicating and reporting environmental issues and compliance to the relevant authority and stakeholders; and
- Offshore mitigation measures.

The OEMP should be read in conjunction with the above mentioned Project plans together with the Project Description (Appendix 5), the Project Rehabilitation Schedule (and decommissioning plan) Appendix 5-18, along with the Construction Programme and the Operational and Maintenance Programme.

The OEMP is formed of several topic specific appendices which are described in Table 1-3.

Table 1-3 OEMP Appendices

Plan	Content
Marine Pollution Contingency Plan (MPCP)	The MPCP sets out pollution prevention measures such as: a) storage of chemicals in secure designated areas in line with appropriate regulations and guidelines, b) adherence to vessel regulations such as MARPOL to reduce potential for vessel pollution, c) disposal of waste e.g. sewage, oil or litter at an authorised disposal facility.

Resource Waste Management Plan (WMP)	The RWMP sets out the provisions for waste management for Offshore Site components in line with the waste management hierarchy.
Vessel Management Plan (VMP)	The VMP sets out how all vessels associated with the Offshore Site will comply with the provisions of the International Regulations for the Prevention of Collision at Sea (COLREGs) and the International Regulations for the Safety of Life at Sea (SOLAS).
Fisheries Management and Mitigation Strategy (FMMS)	The FMMS sets out the activities designed to manage and mitigate the impacts of various projects on local fisheries.
Marine Mammal Mitigation Protocol (MMMP)	The MMMP sets out the mitigation measures to avoid injury and disturbance to marine mammals will be developed. This will be developed with full regard to relevant guidelines and industry good practice from other jurisdictions and could include the use of acoustic deterrent devices to temporarily displace animals away from the highest risk (injury) zones, and marine mammal visual and acoustic observers to ensure that there are no marine mammals in close proximity (1,000 metres) of the UXO being cleared.
Emergency Response Co-operation Plan (ERCoP)	The ERCoP sets out the actions to be taken during an emergency, the resources available to support those actions, and emergency contact details.
Marine Invasive Non-Native Species Management Plan (MINNSMP)	The MINNSMP sets out the approach to invasive species management and mitigation in respect of the Offshore Site providing an outline of the proposed measures to be implemented to facilitate biosecurity control and to minimise potential impacts on the local and wider offshore environment.
Lighting and Marking Plan (LMP)	The LMP sets out the marine lighting and marking requirements and procedures for the Offshore Site during the construction and operation and maintenance stages.
Archaeological Management Plan (AMP)	The AMP sets out the procedures to be followed on discovering any marine archaeological assets during the construction and operation and maintenance stages of the Project.

1.8

Offshore Site Personnel, Roles and Responsibilities

This section outlines the roles and responsibilities associated with the implementation of the OEMP. Specialist roles and responsibilities required to implement and manage the specific topics and receptors covered by the OEMP appendices (e.g. Retained Archaeologist in the AMP or a Marine Mammal Observer in the MMMP) will be described in detail in the appendices. All of the Applicant personnel, contractors and subcontractors will be expected to comply with the requirements of the OEMP. Contractors and subcontractors may have additional procedures, but they will comply with the mitigation and controls within the OEMP as a minimum. These roles and responsibilities may be revised should development permission for the Project be granted, should changes in the offshore works necessitate changes or should updates be required during different stages of the Project.

The Applicant will appoint a design team to prepare the detailed design for the Offshore Site prior to the commencement of construction and ensure all planning and environmental obligations are met. The Applicant will appoint a project contractor who will be responsible for the construction of the Offshore Site in accordance with this OEMP, which will be updated by the contractor as required during the construction phase of the project. Any updated OEMP must meet or exceed the standards and requirements set out in this document.

An organogram of the final team will be included in the OEMP to be prepared pre-commencement of any construction operations and which will detail the name and role for all of those with their assigned responsibility.

1.8.1 Applicant

The Applicant, Fuinneamh Sceirde Teoranta (FST), is responsible for the overall execution and management of the Project, including the Offshore Site. The Applicant is responsible for appointing all the relevant personnel described below and for ensuring they are suitably qualified and competent to fulfil their roles and responsibilities. The Applicant has the overall responsibility for the implementation and enforcement of the OEMP and the procedures contained in it. The Applicant is responsible for Project communications and reporting, and for ensuring all conditions in the Planning Permission, once granted, are followed.

1.8.2 Project Director

The Project Director will have responsibility for managing the Project within the agreed environmental parameters and requirements in conjunction with all other necessary management processes.

1.8.3 Construction Manager

The Construction Manager will have overall responsibility for the organisation and execution of all related environmental activities as appropriate, in accordance with regulatory and project environmental requirements. The Construction Manager for the Offshore Site construction, operational and maintenance, and decommissioning phases will have overall responsibility for ensuring ongoing compliance with the OEMP, including its appendices, and all supporting plans and documents, including the EIAR and the Project plans listed in Section 1.7.

The duties and responsibilities of the Construction Manager will include:

- Ensuring that all works are completed safely and with minimal environmental risk;
- Approving and implementing the OEMP and supporting environmental documentation, and ensuring that all environmental standards are achieved during the construction phase of the project;
- Taking advice from the Site Engineer and ECoW on legislative requirements, codes of practice, guidance notes and good environmental working practice relevant to their work;
- Ensuring compliance through audits and management site visits;
- Ensuring timely notification of environmental incidents;
- Investigating any environmental and non-compliance incidents reported without delay; and
- Ensuring that all construction activities are planned and performed such that minimal risk to the environment is introduced.

1.8.4

Contractors and Subcontractors

The Applicant's Offshore Site personnel will oversee all work carried out by contractor and subcontractor staff. All contractors (and their subcontractors) will ensure that their own procedures comply with the requirements of the OEMP, EIAR and related Planning Permission conditions. The contractors and subcontractors must provide the Applicant's personnel with any information required to carry out monitoring and reporting duties relating to the Offshore Site and described in the OEMP. The contractor and subcontractor must make the Construction Manager and ECoW aware of any potential non-compliance or environmental incidents, including near misses relating to their activities, without delay.

The contractor's and subcontractor's Site Manager should have an appropriate understanding of the OEMP's requirements and commitments and a basic understanding of the impacts of construction on the environment. The contractor and subcontractor are responsible for ensuring the requirements and commitments in the OEMP are complied with as they relate to the contractor's remit. The contractor will refine and update the OEMP as required throughout each phase of the Offshore Site construction, operation and maintenance, and decommissioning phases.

Masters of any vessels contracted to carry out works at the Offshore Site are responsible for the operations and personnel onboard the vessels. The Masters are responsible for compliance with maritime regulations and procedures in addition to the environmental and reporting commitments set out in the OEMP.

1.8.5

Environmental Clerk of Works

The main contractor will be required to engage a qualified Environmental Engineer, Environmental Scientist, or equivalent, with experience in wind farm construction to fulfil the role of Offshore Site ECoW, and to monitor Offshore Site works and to ensure that methodologies and mitigation are followed throughout construction to avoid negatively impacting on the receiving environment. The ECoW should have a good understanding of the relevant environmental policies and legislation to be able to fulfil the role and to carry out compliance audits.

An ECoW will be nominated by the Applicant to oversee the offshore contractor's effective implementation of the project's environmental requirements and obligations, as captured in the OEMP. The ECoW will be responsible for monitoring the works of the project contractor from an environmental perspective on behalf of the Applicant. For the sake of expediency, the ECoW will report their ongoing audit findings, monitoring results and site observations to both the Applicant and the project contractor, having been nominated by the Applicant to fulfil the role. The ECoW will have the power to halt the works, should the need arise and will be supported by the Applicant to ensure the contractor or subcontractor adheres to such an instruction. The ECoW will also have to call upon the project ecologist or other members of the Applicant's design team, as required, to oversee the contractor's or subcontractor's works on-site.

The ECoW will report to the Construction Manager. The responsibilities and duties of the ECoW will include the following:

- Preparation and update of the OEMP and supporting environmental documentation and review/approval of Contractor Method Statements;
- Undertake inspections and reviews to ensure the works are carried out in compliance with the OEMP;
- Monitor the implementation of the OEMP, particularly all proposed/required environmental monitoring;
- Generate environmental reports as required to show environmental data trends and incidents and ensure environmental records are maintained throughout the construction period;

- Ensure proper mitigation measures are initiated and adhered to during the construction phase;
- Liaise with Project personnel such as the Project Ecologist, Project Hydrologist and Project Geotechnical Engineer (where required) to ensure regular Offshore Site visits and audits/inspections are completed;
- Ensure adequate arrangements are in place for site personnel to identify potential environmental incidents;
- Ensure that details of environmental incidents are communicated in a timely manner to the relevant regulatory authorities, initially by phone and followed up as soon as is practicable by e-mail;
- Support the investigation of incidents of significant, potential or actual environmental damage, and ensure corrective actions are carried out, recommend means to prevent recurrence and communicate incident findings to relevant parties;
- Identify environmental training requirements and arrange relevant training for all levels of site-based staff/ workers; and
- Advise site management/ contractor/ sub-contractors on:
 - Prevention of environmental pollution and improvement to existing working methods;
 - Changes in legislation and legal requirements affecting the environment;
 - Suitability and use of plant, equipment and materials to prevent pollution;
 - Environmentally sound methods of working and systems to identify environmental hazards;

The level, detail and frequency of reporting expected from the ECoW to the Construction Manager, Applicant's project manager, and relevant regulators and agencies, will be agreed by all parties prior to commencement of construction, and may be further adjusted as required during the course of the Project.

1.9

Contact details

This section provides the contact details for internal and external Offshore Site communications.

1.9.1

Offshore Site Contacts Sheet

An Offshore Site Contacts Sheet will be compiled prior to the commencement of construction of the Offshore Site. This list will include contact details of all Applicant, contractor/subcontractor and relevant third parties. This list will be made available to relevant personnel and will be regularly updated throughout the construction and operation and maintenance stages.

As a minimum, the Contacts Sheet will include the following information:

- Company/ organisation;
- Role;
- Name;
- Telephone/ mobile number;
- Email address; and
- Office location.

1.9.2

Stakeholder Contact Sheet

A Stakeholder Contacts Sheet will be compiled prior to the commencement of construction of the Offshore Site. This list will include contact details of and the relevant authority, relevant environmental and other stakeholders with an advisory role to the regulator. This list will be informed by the Planning Permission conditions. The Stakeholder Contact Sheet will enable the Applicant and Offshore Site

personnel to contact the regulator and key advisors and stakeholders without delay should a situation arise where advice is required. The Sheet will also set out contact details for organisations to whom regular and ad hoc project reports should be directed to. This list will be made available to relevant personnel and will be regularly updated throughout the construction and operation and maintenance stages.

As a minimum, the Stakeholder Contacts Sheet will include the following information:

- Company/ organisation;
- Role;
- Name;
- Telephone/ mobile number;
- Email address; and
- Office location.

1.10 Environmental Awareness and Training

This section details the environmental awareness requirements and training to be carried out during Offshore Site construction, operation and maintenance and decommissioning phases. All Offshore Site personnel must attend site induction, briefings, toolbox talks and lessons learned sessions relevant to the works they are undertaking to ensure understanding of environmental and health and safety issues.

1.10.1 Environmental Induction

The Environmental Induction will be integrated into the general site induction on a case-by-case basis for each member of staff employed on-site depending on their assigned roles and responsibilities on site. Where necessary, the Environmental Induction will as a minimum include:

- Provision of a copy of the OEMP and discussion of the key environmental risks and constraints;
- Discussion on the outline of the OEMP structure;
- A discussion of the applicable work method statement;
- The roles and responsibilities of staff, including contractors, in relation to environmental management; and
- Details on all plans and procedures relevant to the construction, operations and decommissioning phases.

1.10.2 Toolbox Talks

Toolbox talks will be held by the ECoW or Construction Manager at the commencement of each day when required, or at the commencement of new Offshore Site activities. The aims of the toolbox talks are to identify the specific work activities that are scheduled for that day or phase of work. In addition, the necessary work method statements and sub plans would be identified and discussed prior to the commencement of the day's activities. The toolbox talks will include training and awareness on topics including:

- Relevant Ecological Sensitivities;
- Buffers and mitigation zones to be upheld, e.g. archaeology or ecology;
- Good site practice;
- Vessel traffic rules and routes;
- Strictly adhering to the Offshore Site footprint; and
- Materials and waste procedures.

Site meetings would be held on a regular basis involving all Offshore Site personnel. The objectives of a site meeting are to discuss the coming weeks proposed activities and identify the relevant work method statements and sub-plans that will be relevant to that week's activities. In the event of any non-compliance identified during the previous week which may not have required immediate action, these would also be discussed to ensure they are closed out in a timely manner as well as confirming the necessary corrective action to remove the potential of any non-compliance reoccurring has been implemented.

1.10.3 Lessons Learned

Either as part of or, in addition to any audit, inspection or investigation, the contractors or subcontractors shall conduct lessons learned sessions as required. As a minimum, the Applicant and the contractors shall conduct a joint lessons learned session on an annual basis but may consider these relevant at different stages of the project. Should this process, or any other, generate environmental information worth sharing, the Applicant will inform An Bord Pleanála and the wider industry.

1.11 Communications and Reporting Procedures

This section describes the procedures for communicating and reporting environmental issues and compliance to the relevant authority and relevant stakeholders.

1.11.1 Internal Communications

Internal Offshore Site communications will involve regular progress meetings before and during construction, operation and maintenance and decommissioning activities between the Applicant's personnel and relevant contractors and subcontractors, including the ECoW as required. Reviews of Offshore Site risk assessments and method statements will be undertaken and copies of the relevant Offshore Site permissions will be provided to the contractors and/or subcontractors. They will also be made aware of the planning permission obligations associated with a particular activity via environmental training and awareness sessions detailed in Section 1.10 of the OEMP. All Applicant personnel, contractors and subcontractors will report any environmental concerns or issues, including on-site potential or actual environmental incidents or emergencies, immediately.

1.11.2 External Communications

The Applicant will liaise with the relevant authority and relevant external stakeholders on environmental management throughout the lifetime of the Project. External communications, notifications and reporting including of any environmental incidents in relation to the Offshore Site activities will be carried out in accordance with the commitments included in the EIAR and the requirements of the planning permission conditions. The external communications required for reporting on activities are listed in Table 1-4.

Table 1-4 External reporting commitments

Activity	Reporting	Frequency
Marine Mammal Observer reports	TBC	TBC
Dredge disposal reports	TBC	TBC
To be added post-consent		

1.11.3 Environmental Incidents

For pollution reporting procedures refer to the MPCP, for emergency incidents refer to the ERCoP and for Protocol for Archaeology Discoveries (PAD) refer to the AMP.

Any potential environmental incidents, including near misses, out with the plans listed above that occur at the Offshore Site, must be reported to the Construction Manager and ECoW without delay and within 24 hours of the incident occurring. Such incidents include, but are not limited to:

- Dropped objects;
- Non-compliance incidents;
- Wildlife incidents; and
- Unforeseen environmental issues.

1.11.4 Contractor and Subcontractor Communications

During the various stages of the Offshore Site construction, operation and maintenance, and decommissioning, designated personnel on each vessel will be responsible for providing daily progress reports, including environmental management, to the Applicant. The details of the reporting methods and requirements will be finalised post-consent and following appointment of contractors.

1.12 Offshore Site Mitigation Measures

This section of the OEMP summarises the environmental commitments in the EIAR to allow for their practical implementation by the Applicant, contractors and subcontractors. It also details the environmental management, mitigation and control measures identified in the EIAR and any other commitments generated from the planning permission process once granted. Details of topic specific mitigation measures can be found in the OEMP appendices and are briefly described below.

1.12.1 Marine Pollution Contingency Plan

This details the measures to be put in place to minimise any impacts due to the release of pollutants during Offshore Site construction, operation and maintenance and decommissioning phases. These will be set out in the MPCP (Appendix 5-3).

Contractors and Subcontractors will be expected to comply with the requirements of the MPCP.

1.12.2 Emergency Response Co-operation Plan

The ERCoP (Appendix 5-4) sets out the actions to be taken during an emergency, the resources available to support those actions, and emergency contact details.

Contractors and Subcontractors will be expected to comply with the requirements of the ERCoP.

1.12.3 Resource Waste Management Plan

A RWMP (Appendix 5-5) has been prepared to deal with all aspects of waste produced during Offshore Site construction, operation and maintenance and decommissioning phases. The RWMP is based on the waste hierarchy of reduce, reuse and recycle wherever possible.

Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the RWMP.

1.12.4 **Marine Mammal Mitigation Plan**

The MMMP (Appendix 5-6) sets out the mitigation measures to avoid injury and disturbance to marine mammals. This will be developed with full regard to the relevant guidelines and industry good practice from other jurisdictions. This could include the use of acoustic deterrent devices to temporarily displace animals away from the highest risk (injury) zones, and marine mammal visual and acoustic observers to ensure that there are no marine mammals in close proximity (1,000 metres) of the UXO clearance.

Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the MMMP.

1.12.5 **Fisheries Management and Mitigation Strategy**

The FMMS (Appendix 5-7) sets out the activities designed to manage and mitigate the impacts of the Offshore Site construction, operation and maintenance and decommissioning on local fisheries.

1.12.6 **Marine Invasive Non-Native Species Management Plan**

The measures to be adopted for the management of marine invasive non-native species during Offshore Site construction, operation and maintenance, and decommissioning phases are set out in the MINNSMP (Appendix 5-8). Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the MINNSMP.

1.12.7 **Lighting and Marking Plan**

The LMP (Appendix 5-9) sets out the marine lighting and marking requirements and procedures for the Offshore Site during the construction, operation and maintenance and decommissioning phases.

1.12.8 **Vessel Management Plan**

The VMP (Appendix 5-10) sets out how all vessels associated with the Offshore Site will comply with the provisions of the International Regulations for the Prevention of Collision at Sea (COLREGs) and the International Regulations for the Safety of Life at Sea (SOLAS).

1.12.9 **Archaeological Management Plan**

The AMP sets out the procedures to be followed on discovering any marine archaeological assets during Offshore Site construction, operation and maintenance and decommissioning phases. The AMP will include a Written Scheme of Investigation (WSI) and Protocol for Archaeology Discoveries (PAD) (Appendix 5-11).

1.12.10 **Summary of Mitigation Measures**

Summary of the mitigation methods identified in the EIAR and described in detail in the OEMP and its appendices is shown in Table 1-5. These mitigation measures will be adhered to throughout the Offshore Site pre-construction, construction, operation, maintenance and decommissioning phases. The mitigation measures correspond to those described in Chapter 20: Schedule of Mitigation – Offshore.

Table 1-5 Summary of the mitigation measures identified in the EIAR

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
EIAR Chapter 6: Population and Human Health					
Construction Phase					
MM1	6.11.2.1.3 Land Use/ Sea Use Offshore	EIAR Chapter 6	➤ EIAR Chapter 18: Other Users of the Marine Environment provides a full list of mitigation measures relating to the construction phase of the Offshore Site.		
MM3	6.11.2.1.4 Residential Amenity	EIAR Chapter 6	➤ All mitigation with regards to Residential Amenity can be found in the corresponding EIAR Chapters: EIAR Chapter 14: Shipping and Navigation, EIAR Chapter 18: Other Users of the Marine Environment, EIAR Chapter 19: Offshore Air Quality and Airborne Noise, EIAR Chapter 25: Onshore Air Quality, EIAR Chapter 26: Onshore Noise and Vibration, and EIAR Chapter 28: Material Assets and EIAR Chapter 29: Traffic and Transport will be implemented in order to reduce insofar as possible, potential effects on residential amenity at properties located in the vicinity of the Project construction works.		
MM4	6.11.2.2.1 Health and Safety	EIAR Chapter 6	➤ The Project will be constructed, operated and decommissioned in accordance with all relevant Health and Safety Legislation, including: <ul style="list-style-type: none"> • Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005); • Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007), as amended; • Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. 291 of 2013), as amended; and • Safety, Health and Welfare at Work (Work at Height) Regulations 2006 (S.I. No. 318 of 2006). 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> During construction of the Project all staff will be made aware of and adhere to the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2006'. This will encompass the use of all necessary Personal Protective Equipment, Risk Assessment and Method Statements and adherence to the site Health and Safety Plan Fencing will be erected in areas of the site where uncontrolled access is not permitted. Appropriate health and safety signage will also be erected on this fencing and at locations around the site. At the Offshore Site a guard vessel will be used where necessary to ensure that passing vessels observe the recommended safety distances. Communication with local sea users will also be undertaken regularly through regular channels to ensure that there is wide awareness of the works as they progress. Health and Safety Guidelines for working within and around electrical substations and underground cables will be adhered to onsite. Compliance with all relevant health and safety legislation, guidelines, industry best practice and associated risk assessments, method statements, and standards will be adhered to during all aspects of the construction phase of the Project 		
MM6	6.11.2.2.3 Water Quality	EIAR Chapter 6	<ul style="list-style-type: none"> Mitigation by design has been incorporated throughout the Offshore Site. The construction phase will operate in accordance with best practice and maritime conventions including the MARPOL and BWM conventions. Adherence to these conventions seek to avoid, prevent and reduce the likelihood that vessel operations result in pollution events to the marine environment. A bespoke drainage design which includes but is not limited interceptor drains, vee-drains and sediment traps will be implemented on the Site. 		
MM8	6.11.2.2.5 Traffic	EIAR Chapter 6	<ul style="list-style-type: none"> Mitigation by design as a means to reduce the significance of effect of marine traffic and its associated human health risk are as follows: 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Compliance with UK's Marine Guidance Note (MGN) 654 (Maritime and Coastguard Agency (MCA), 2021 and its annexes; ➤ Guard vessel(s); ➤ Marine coordination for project vessels; ➤ Pollution planning; and ➤ Project vessel compliance with international marine regulations. 		
MM9	6.11.2.2.3 Major Accidents and Natural Disasters	EIAR Chapter 6	<ul style="list-style-type: none"> ➤ The Project has been designed and will be built in line with current best practice and, as such, mitigation against the risk of major accidents and/or disasters will be embedded through the design. ➤ In accordance with the provision of the European Commission 'Guidance on the preparation of Environmental Impact Assessment Reports', a Risk Management Plan will be prepared and implemented to ensure an effective response to disasters or the risk of accidents. The plan will include sufficient preparedness and emergency planning measures. 		
Operational Phase					
MM10	6.11.3.1.3 Sea Use and Land Use	EIAR Chapter 6	<ul style="list-style-type: none"> ➤ Marine recreational users will be informed in advance of any routine maintenance or ad-hoc repair works required for the Offshore Site prior to the commencement of any works. ➤ Throughout the operation phase, ongoing engagement will be undertaken with key stakeholders (including scuba diving and snorkelling centres, Blue Flag beach operators and local ports and marina) to ensure that any activities associated with the operation of the Offshore Site, is clearly conveyed prior to the commencement of any maintenance activities. ➤ All installed infrastructure within the marine environment will be detailed on nautical and admiralty charts and within relevant publications. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM11	6.11.3.1.3 Water Quality	EIAR Chapter 6	<p>Mitigation by design has been incorporated into the Offshore Site. These measures include:</p> <ul style="list-style-type: none"> ➤ Vessels adhering to MARPOL and BWM conventions during the operations and maintenance phase of the Offshore Site. ➤ The Project will develop and adhere to plans including a MPCP (Appendix 5-3 and an ERCP (Appendix 5-4) in order to reduce the likelihood of pollution events and to ensure procedures are in place to safeguard biosecurity. ➤ An emergency response procedure will also be in place for the Offshore Site, should an emergent situation occur, including any large-scale pollution incidents. 		
MM13	6.11.3.1.5 Traffic	EIAR Chapter 6	<p>Relevant mitigation measures which are relevant in reducing the risk of increased marine traffic include:</p> <ul style="list-style-type: none"> ➤ Advisory safe passing distances; ➤ Compliance with MGN 654; ➤ Lighting and marking; ➤ Marine coordination for project vessels; ➤ Marking on nautical charts; ➤ Minimum blade clearance; ➤ Pollution planning; and ➤ Promulgation of information 		
MM14	6.11.3.1.6 Major Accidents and Natural Disasters	EIAR Chapter 6	<ul style="list-style-type: none"> ➤ The Project has been designed and will be built in line with current best practice and, as such, mitigation against the risk of major accidents and/or disasters will be embedded through the design. ➤ In accordance with the provision of the European Commission 'Guidance on the preparation of Environmental Impact Assessment Reports' 2017, a Risk Management Plan will be prepared and implemented onsite to ensure an effective response to disasters or the risk of accidents. The plan will include sufficient preparedness and emergency planning measures. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Decommissioning Phase					
MM15	6.11.4.3.1 Health and Safety	Chater 6	<p>The Project will be decommissioned in accordance with all relevant Health and Safety Legislation, including the below, and any further health and safety legislation which is produced over the lifetime of the Project:</p> <ul style="list-style-type: none"> ➤ Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005); ➤ Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007), as amended; ➤ Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. 291 of 2013), as amended; and ➤ Safety, Health and Welfare at Work (Work at Height) Regulations 2006 (S.I. No. 318 of 2006). ➤ A Rehabilitation Plan has been prepared for the Project (Appendix 5-18). The Rehabilitation Plan will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and any proposed changes will be agreed with the competent authority at that time. ➤ During decommissioning of the Project all staff will be made aware of and adhere to the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2006'. This will encompass the use of all necessary Personal Protective Equipment, Risk Assessment and Method Statements and adherence to the site Health and Safety Plan. ➤ Fencing will be erected in areas of the site where uncontrolled access is not permitted. Appropriate health and safety signage will also be erected on this fencing and at locations around the site. ➤ Health and Safety Guidelines for working within and around electrical substations and underground cables will be adhered to onsite. ➤ Compliance with all relevant health and safety legislation, guidelines, industry best practice and associated risk assessments, method statements, and standards will be adhered to during all aspects of the decommissioning phase of the Project. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM16	6.11.4.3.4 Noise	EIAR Chapter 6	<p>Mitigation by design was identified in order to reduce the significance of effect of marine traffic and its associated human health risk are as follows:</p> <ul style="list-style-type: none"> ➤ Compliance with MGN 654 and its annexes (or relevant guidance in place at the time) ; ➤ Guard vessel(s); ➤ Marine coordination for project vessels; ➤ Pollution planning; and ➤ Project vessel compliance with international marine regulations <p>A traffic management plan will be implemented for the decommissioning phase of the Onshore Site in order to reduce the effect of decommissioning traffic.</p>		
MM17	6.11.4.3.5 Traffic		<p>Mitigation by design was identified in order to reduce the significance of effect of marine traffic and its associated human health risk are as follows:</p> <ul style="list-style-type: none"> ➤ Compliance with MGN 654 and its annexes ; ➤ Guard vessel(s); ➤ Marine coordination for project vessels; ➤ Pollution planning; and ➤ Project vessel compliance with international marine regulations 		
EIAR Chapter 7: Marine Physical and Coastal Processes					
Pre-construction Phase					
MM1	Mitigation by design	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ Cable burial: Cable route surveys have been undertaken to identify presence of sensitive features (e.g. habitats and species), morphological features of interest and seabed characteristics, to inform cable routing. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> Implementation and monitoring of cable protection (via cable burial or external protection where burial is not possible) with any damage, destruction or decay of cables notified to appropriate regulatory bodies no later than 24 hours after discovered. 		
MM2	Mitigation by design	EIAR Chapter 7	<ul style="list-style-type: none"> Seabed reinstatement: Where possible and appropriate the seabed would be reinstated following construction activities. This is particularly relevant in the landfall installation using trenchless technologies, where the excavated exit pit will be reinstated using the side cast sediment berm adjacent to the exit pit. 		
Construction Phase					
MM3	7.6.3.1 Change to seabed levels due to construction activities	EIAR Chapter 7	<ul style="list-style-type: none"> Where dredging will be undertaken, any material dredged during the construction phase will be deposited within the disposal area, which have been selected to minimise the potential for harm to sensitive habitats and species. This will ensure that the footprint of deposition of dredged material is limited as far as practicable. Furthermore, any clearance will aim to minimise the dispersion extent of sediment, such as using controlled flow excavator (CFE) that minimises the sediment dispersal. The use of trenchless technologies, e.g. horizontal directional drilling (HDD), and the reinstatement of the seabed following the landfall installation works will ensure that changes to seabed levels are temporary and restored in the wake of landfall activities. Mitigation by reduction will also be employed in terms of implementing an optimal subtidal HDD exit depth, such as to limit discernible changes to water depth (e.g. associated with the sediment berms), while being feasible for Offshore Site. An additional pre-construction cable route survey will directly inform the potential presence of morphological features of interest in addition to requirement of seabed preparation activities, this will reduce as far as practicable the scale of clearance 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>thereby reducing the effect on seabed levels and minimise the extent of cable protection.</p> <p>➤ Mitigation by reduction through the implementation and adherence to an Environmental Management Plan prior to construction, which provides guidance on marine pollution responses, vessel operations and waste management.</p>		
MM4	7.6.3.2 Change to sediment properties due to construction activities	EIAR Chapter 7	<p>➤ The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which causes deeper sediments to be brought to the surface. Consequently, disturbance associated with the Offshore Site is limited to the surficial sediments which are more consistent across the area. Should dredging be undertaken, any material dredged during the construction phase will be deposited within the disposal area. This will ensure that the footprint of deposition of dredged material is limited as far as practicable. Furthermore, any clearance will aim to minimise the dispersion extent of sediment, such as using a fall pipe for clearance operations using a trailing suction hopper dredger (TSHD) or implementing CFE that minimises the disturbance.</p> <p>➤ A pre-construction cable route survey will directly inform the potential presence of morphological features of interest in addition to requirement of seabed preparation activities, including boulder clearance requirements. Boulder relocation will be constrained to areas similarly characterised by boulders thereby limiting local changes to sediment properties, however boulders will not be removed from the Offshore Site area. Information from the completed survey, will also help reduce as far as practicable the scale of seabed clearance, thereby reducing the opportunity for elevated SSC and subsequent deposition and minimise the extent of cable protection.</p> <p>➤ Mitigation by reduction through the implementation and adherence to an Environmental Management Plan prior to construction.</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	7.6.3.3 Change to suspended sediment concentrations due to construction activities	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which can cause localised high suspended sediment concentration (SSC). Therefore, the highest concentrations are limited to the use of CFE for seabed preparation and the release at 5 m above the seabed by a TSHD, as discussed above. Disposal locations for dredged material have been identified at least 5 km from the nearest SAC with protected seabed features, to further reduce the effect of SSC on these features. ➤ A pre-construction cable route survey will directly inform the potential presence of morphological features of interest in addition to requirement of seabed preparation activities, will also help reduce as far as practicable the scale of seabed clearance, thereby reducing the opportunity for elevated SSC. ➤ The use of trenchless technologies at the landfall location, such as HDD, will minimise the extent of seabed disturbance, thereby reducing elevated SSC in the water column. ➤ The implementation and adherence to an Environmental Management Plan prior to construction will also serve as mitigation in ensuring that the discharges at the landfall popout are suitable for release into the marine environment. 		
MM5	7.6.3.5 Change to coastal landfall morphology	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ Mitigation by reduction will be employed in terms of implementing an optimal exit depth, such as to limit discernible changes to water depth (e.g. associated with the sediment berms), while being feasible for Project. ➤ Mitigation by reduction in the form of reducing the effect through the implementation and adherence to an Environmental Management Plan prior to construction to ensure the discharges at the HDD popout are suitable for release into the marine environment. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Operational Phase					
MM6	7.6.4.1 Change to the tidal, wave and sediment transport regimes	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ The minimum separation distance between wind turbine generators (WTG) will be at least 1,000 m, which reduces the coalescence of effects between WTGs, with the potential recovery in conditions in-between. ➤ Seabed modification (e.g. rock placement) will be minimised where possible, reducing physical changes to the seabed character. 		
MM7	7.6.4.4 Introduction of scour, including edge scour	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ The WTG and offshore 220kV Electrical Substation (OSS) stonebeds and associated scour protection have been included in the Project Description, with the installation of any required protection at the construction phase, which therefore negates the introduction of scour. 		
MM8	7.6.4.5 Changes to water column structure with impact to stratification	EAIR Chapter 7	<ul style="list-style-type: none"> ➤ The minimum separation distance of at least 1,000 m between WTGs reduces the coalescence of effects between WTGs, with the potential recovery in conditions in-between. 		
Decommissioning Phase					
MM8	7.6.5.1 Change to seabed levels due to decommissioning	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ Mitigation by design has been incorporated throughout the Offshore Site through the implementation and adherence to a Decommissioning Plan, as described in section 7.4.4.4 and in Chapter 5: Project Description. The decommissioning phase entails removing Project infrastructure with no additional infrastructure placed on the seabed. Removal of WTGs and GBS fixed-bottom foundations will reduce any hydrodynamic effects introduced by the presence of these structures. Furthermore, best practice and the approach of decommissioning installed rock material in situ will mean minimal disturbance of the seabed. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM9	1.6.5.2 Change to sediment properties due to decommissioning	EIAR, Chapter 7	<ul style="list-style-type: none"> Mitigation by design has been incorporated throughout the Offshore Site through the implementation and adherence to the OEMP and Decommissioning Plan, as described in section 7.4.4.4 and in Chapter 5: Project Description. The decommissioning phase entails removing Project infrastructure with little to no additional infrastructure placed on the seabed. Therefore, there will be no additional change to the seabed properties. 		
MM10	7.6.5.3 Change to suspended sediment concentrations due to decommissioning	EIAR, Chapter 7	<ul style="list-style-type: none"> Mitigation by design has been incorporated throughout the Offshore Site through the implementation of the OEMP and Decommissioning Plan, as described in section 7.4.4.4 and in Chapter 5: Project Description. The decommissioning phase entails removing Project infrastructure with little to no additional infrastructure placed on the seabed. Furthermore, best practice and the approach of decommissioning installed rock material in situ will mean minimal disturbance of the seabed. 		
EIAR Chapter 8: Water and Sediment Quality					
Pre-construction Phase					
MM11	Mitigation by Design	EIAR Chapter 8	<ul style="list-style-type: none"> Offshore Environmental Management Plan (OEMP): implementation and adherence to the OEMP (see Appendix 5-2). The OEMP annexes include: <ul style="list-style-type: none"> A Marine Pollution Contingency Plan (MPCP) that details pollution prevention measures such as: Storage of chemicals in secure designated areas in line with appropriate regulations and guidelines; Adherence to vessel regulations such as MARPOL to reduce potential for vessel pollution; 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Disposal of waste e.g. sewage, oil or litter at an authorised disposal facility. ➤ A Marine Invasive Non-Native Species Management Plan (MINNSMP) which details control measures to safeguard biosecurity such as compliance with the EU Invasive Alien Species Regulation 1143/ 2014 and all vessels commissioned will be required to comply with international regulations (e.g. the International Maritime Organization (IMO) International Convention for the Control and Management of Ships' Ballast Water and Sediments ('BWM Convention') ➤ A Waste Management Plan which details the provisions for waste management for project components in line with the waste management hierarchy. ➤ Emergency Response and Co-operation Plan (ERCoP): An ERCoP has been developed as an annex to the OEMP. The ERCoP will be complied with, in the unlikely event of an emergency such as a major pollution event (such as per the Sea Pollution Act 1991) and detail responsibilities and / or cooperation with the Irish Coastguard and other key authorities during the construction, operation and maintenance or decommissioning of the Offshore Site. ➤ WTG and OSS design: the WTG and OSS topsides are designed and constructed to contain leaks, thereby reducing the risk of spillage into the marine environment. Details on control measures for reducing the risk of accidental leaks and spills are detailed within MPCP. ➤ Adherence to the International Convention for the Prevention of Pollution from Ships (MARPOL) and Ballast Water Management (BWM) Conventions: The risk of marine pollution will be minimised through compliance with MARPOL and BWM convention requirements. Control measures and shipboard oil pollution emergency 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>plans (SOPEP) will be established and adhered to, as required under MARPOL Annex I for all Project and contractor vessels.</p> <ul style="list-style-type: none"> ➤ Dredge Disposal Method and Locations: The Project has committed to reducing SSCs through using a fall pipe located at 5 m above the seabed, instead of disposal from the sea surface, for disposal of dredged material. ➤ Dredge Disposal Licence: A Dumping at Sea permit will be obtained for the disposal of dredge material within the Offshore Site as required by the Dumping at Sea Act 1996, as amended. 		
Construction Phase					
MM12	8.6.2.1 Changes in water quality due to increased suspended sediment concentrations	EIAR Chapter 8	<ul style="list-style-type: none"> ➤ Mitigation by design has been incorporated throughout the Offshore Site. The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which can cause localised high SSC. Therefore, the highest concentrations are limited to the use of CFE and the surface release of dredged material by a dredger hopper, as discussed above. Nonetheless, the Project has committed to releasing dredged material through a fall pipe at a height of 5m above the seabed (rather than at sea surface) which significantly reduces the potential for dispersion of sediment and resettlement time. In addition, disposal locations were selected to ensure no significant effect on sensitive areas. ➤ A pre-construction cable route survey will be completed informing opportunities for optimisation of the Project Design and construction methodologies, to further reduce the potential for impacts. The completed survey will also help reduce as far as practicable the scale of seabed clearance, thereby reducing the opportunity for elevated SSC. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>➤ The use of trenchless technologies at the landfall location will minimise the extent of seabed disturbance, thereby reducing elevated SSC in the water column. The implementation of the OEMP prior to and during construction to will also serve as mitigation in ensuring that the discharges at the pop-out location are suitable for release into the marine environment.</p>		
MM13	8.6.2.2 Changes in WSQ due to accidental release of contaminated sediment	EIAR Chapter 8	<p>➤ Mitigation by design has been incorporated throughout the Offshore Site. Although there are no areas of high risk identified in the WSQ Study area a number of design measures aid the reduction of a potential effect. The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which could result in increased seabed disturbance and release of potential contaminants. The Project has also committed to releasing dredged material through a fall pipe at a height of 5m above the seabed which significantly reduces the dispersion extents of potential contaminated sediment. This activity will also be subject to a separate permit which will safeguard the potential for contaminated material to be released.</p> <p>➤ The use of trenchless technologies at the landfall location will minimise the extent of seabed disturbance. Additionally, PLONOR drilling fluids will be used and therefore reducing the potential for release of potentially contaminated sediment.</p>		
MM14	8.6.2.3 Changes in WSQ due to routine and accidental discharges from vessels during construction	EIAR Chapter 8	<p>➤ As per the embedded mitigations (as detailed in Section 8.4.5), support and installation vessels operating during the construction phase will operate in accordance with best practice and maritime conventions including the MARPOL and BWM conventions. Adherence to these conventions seek to avoid, prevent and reduce the likelihood that vessel operations result in pollution events to the marine environment, including from routine discharges which is prohibited, except when the ship has in operation an approved sewage treatment plant or when the ship is discharging comminuted and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land as per MARPOL IV. Additionally,</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>control measures and SOPEPs will be established and adhered to, if required, under MARPOL Annex I.</p> <p>➤ Furthermore, the Project has developed and will adhere to the OEMP and its annexes which include MPCP and INNS management plans in order to reduce the likelihood of pollution events and to ensure procedures are in place should an accidental release occur. These protocols will ensure potential pollution is contained and rectified quickly. Additionally, emergency response procedures will be in place for the Offshore Site, should an emergency situation occur, including any pollution incidents.</p>		
Operational Phase					
MM15	<p>8.6.3.1 Effects on water quality status of designated waters due to increased suspended sediment concentrations</p> <p>8.6.3.2 Changes in WSQ due to accidental release of contaminated sediment</p>	EIAR Chapter 8	<p>➤ Cable surveys will be conducted throughout the operational stage to determine if intervention is needed. These surveys will ensure that maintenance is targeted to necessary areas reducing the need for large scale works where appropriate. This will reduce disturbance of the seabed and suspended sediment generation.</p>		
MM16	8.6.3.3 Changes in WSQ due to routine and	EIAR Chapter 8	<p>➤ As detailed for the construction stage, the mitigations proposed are considered sufficient to reduce the residual effects to not significant levels (see Section 8.6.2.3.4). These measures include vessels adhering to MARPOL and BWM conventions during</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	accidental discharges from vessels and WTGs during operations and maintenance		<p>the operations and maintenance phase. Additionally, control measures and SOPEPs will be established and adhered to, as required under MARPOL Annex I. Furthermore, the Project has developed and will adhere to the OEMP which includes MPCP and Marine Invasive Non-Native Species Management Plan (MINNSMP) in order to reduce the likelihood of pollution events and to ensure procedures are in place to safeguard biosecurity. An emergency response procedure will also be in place for the Offshore Site, should an emergent situation occur, including any large-scale pollution incidents.</p> <p>➤ Additionally, the WTG including the nacelle, tower, and rotor and OSS structures are designed to contain any potential leaks. The containment design of the WTG / OSS structures will therefore significantly reduce the risk of potential spills contaminating the marine environment. Additionally, for the planned oil transfers the transfer of potential pollutants to WTG's/OSS will be meticulously planned and will follow all relevant guidelines as stated by the MPCP.</p>		
EIAR Chapter 9: Benthic Ecology					
Pre-construction Phase					
MM17	Mitigation by Design	EIAR Chapter 9	<p>➤ Landfall Installation: trenchless methods (e.g. HDD) will be undertaken at the Landfall to avoid any direct effects to the intertidal area.</p> <p>➤ Cable burial: Cables will be sufficiently buried to a target depth. Where burial is not achieved, external cable protection will be used (e.g. cast-iron shell, rock placement, concrete mattresses, rock bags and/or grout bags) to ensure sufficient distance from sensitive receptors to thermal and electromagnetic field (EMF) effects.</p> <p>➤ Management Plans: A MINNSMP has been developed for this project. The MINNSMP is presented as an annex to the OEMP that describes specific measures to</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>reduce introduction of INNS. This includes compliance with the EU Invasive Alien Species Regulation 1143/ 2014 and all vessels commissioned will be required to comply with international regulations (e.g. the International Maritime Organization (IMO) International Convention for the Control and Management of Ships' Ballast Water and Sediments ('BWM Convention')).</p> <p>➤ Avoidance of Sensitive Features: Environmental survey data collected through the site surveys carried out for the Offshore Site has been used to inform cable routing and placement of GBS fixed-bottom foundations and other infrastructure on the seabed, with emphasis on avoiding the most sensitive features to direct disturbance.</p>		
Construction Phase					
MM18	9.6.3.1 Temporary habitat or species loss / disturbance	EIAR Chapter 9	<p>➤ Mitigation by design which includes avoidance where possible of sensitive features. Specifically, the layout of WTGs, OSS, inter-array cables (IAC) and offshore export cable (OEC) has been designed to avoid exposed rock as much as possible and known locations of sensitive species such as sea fan (which are largely outside of the OAA area) were avoided</p> <p>➤ The first choice of cable protection will be burial. The sufficient burial of cables in subtidal sands and muds is anticipated to be achieved and therefore will mitigate against the requirement for long-term placement of rock protection.</p>		
MM19	9.6.3.2 Long-term loss or damage to benthic habitats and species	EIAR Chapter 9	<p>➤ The first choice of cable protection along the offshore export cable corridor (OECC) will be burial. The sufficient burial of cable in subtidal sands and gravels habitat is anticipated to be achieved along the majority of the OECC and therefore will mitigate against (or significantly reduce) the requirement for long-term placement of rock protection in the sands and gravels habitat.</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ The Project is also looking at ways to reduce the volume of rock berms for cable protection within the OAA, although details will be subject to further studies and commitments to these cannot be made at the time of writing. 		
MM20	9.6.3.3 Increased suspended sediment concentrations and associated deposition	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ Mitigation by design such that the deposition of dredged material will be confined to the defined disposal areas through the use of a fall pipe for precision placement; and ➤ Mitigation by avoidance as the disposal areas selected are those that are sedimentary in nature and will limit potential effects on stony and bedrock reef by avoiding the habitat. ➤ Mitigation by design as environment survey data has been used to inform the location and spatial extent of Project activities (including disposal areas) such that there will be no direct effects to maerl beds. ➤ Mitigation by avoidance such that the deposition of dredged material will be confined to the defined disposal areas through the use of a down pipe for precision placement (i.e. TSHD selected for dredging activity to enable controlled deposition in disposal area). ➤ The defined disposal areas are considerable distance from the known location of maerl beds (approximately 2.5 km ENE) and therefore reduce further the magnitude of any associated effect ➤ The IACs within the array area closest to the maerl beds will not be buried but will be located within rocky substrata and rock protected, which will limit the potential to suspend sediments in the vicinity of the maerl beds. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM21	9.6.3.4 Increased risk of introduction and spread of invasive non-native species	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ There will be mitigation by reduction through the implementation of the OEMP which includes measures for pollution prevention, biosecurity assessment and waste management; ➤ A MPCP and a MINNSMP are included as part of the OEMP. These management plans detail the measures being taken to avoid the introduction and spread of INNS, including adherence to the BWM Convention and other applicable international regulations, as well as containment procedures in the unlikely event that INNS are found; ➤ Standard mitigation will be undertaken, including for swapping out ballast water, cleaning hulls, floating structures, etc. 		
Operational Phase					
MM22	9.6.4.3 Temporary habitat or species loss / disturbance	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ Mitigation by design and mitigation by avoidance has been incorporated as the footprint during the operational phase will significantly less than that of the construction phase. The use of environmental survey data to inform cable routeing and placement of gravity-based fixed-bottom foundations and other infrastructure on the seabed during construction, with an emphasis on avoiding the most sensitive features will ensure that key sensitivities will be avoided during the operational phase of the wind farm. 		
MM23	9.6.4.5 Colonisation of hard structures	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ Cable burial will be the first choice of protection for the OEC which will reduce the quantities of rock required for protection along the OECC where sediment habitats are more prominent. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM24	9.6.4.6 Effect of cable thermal load or EMF on benthic ecology	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ There will be mitigation by reduction in the form of reducing exposure to the effect as cables will be buried as the first choice of protection to a target depth of 1.0 m, acting as a barrier between benthic habitats and species and the source of effects; and ➤ Cast iron shells will be used on surface cable in which EMF will be within background levels. 		
Decommissioning Phase					
MM25	9.6.5.1 Removal of hard substrate during decommissioning	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ Structures used for seabed preparation, including stonebeds, will be decommissioned in situ. IACs will be decommissioned <i>in situ</i> where buried; unburied and accessible IACs will be cut and removed. Rock berms will remain undisturbed, as this method is likely to result in the lowest environmental effect; and ➤ The implementation and adherence to the Decommissioning Plan (Appendix 5-18) 		
EIAR Chapter 10: Fish and Shellfish Ecology					
Pre-construction Phase					
MM26	Mitigation by Design	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ The use of cable protection will be minimised as far as practicable, and only used where required. Additional external cable protection (e.g. rock placement) will only be used where the minimum target burial depth cannot be achieved, for example in areas of hard ground or at third-party crossings. ➤ Implementation and compliance with the Offshore Environmental Management Plan (OEMP)), including MINNSMP, and a MPCP. These plans include a commitment to measures to mitigate against pollution events, biosecurity measures, waste management, measures to avoid the introduction and spread of Invasive Non-Native 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>Species, adherence to the BWM Convention and other applicable international regulations, as well as containment procedures.</p> <ul style="list-style-type: none"> ➤ Marine pollution prevention under the International Convention for the Prevention of Pollution from Ships (MARPOL) convention requirements will be followed during construction, operation and maintenance and decommissioning. ➤ The Project has completed pre-construction benthic survey and habitat mapping to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account for cable route refinement within the OECC to reduce the habitat loss or disturbance of potential spawning or nursery habitats, in particular for the most vulnerable species, such as herring and Nephrops. ➤ Low order techniques for unexploded ordnance (UXO) clearance will be utilised wherever practicable to reduce underwater noise effects. See chapter 12: Marine mammals and other megafauna for further details on this. ➤ Implementation of, and adherence to, a Decommissioning Plan, to be updated throughout the Project lifespan. The Decommissioning Plan has been prepared for the Project (see Chapter 5: Project Description) the details of which will be agreed with the local authority prior to any decommissioning. ➤ Vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting. ➤ Implementation and compliance with a Vessel Management Plan (VMP). 		
Construction Phase					

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM27	10.6.2.1 Disturbance or Damage to Fish and Shellfish due to Underwater Noise Generated from Construction Activities	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ Use of GBS fixed-bottom foundations which avoids the requirement for impact piling, which generates high-amplitude impulsive sound which would have far greater effects on acoustically sensitive species than those predicted for the Offshore Site; ➤ Low order deflagration will be the preferred clearance method used, where clearance of any size of UXO is done using a special donor charge of 0.5 kg which vaporises the explosive material without explosion (see Chapter 12: Marine Mammals and other Megafauna for further details on this); ➤ Vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting and reduce the underwater noise effects associated with vessel sounds; ➤ Implementation and compliance with a VMP. 		
MM28	10.6.2.2 Temporary Habitat Loss or Disturbance	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ Pre-construction benthic survey and habitat mapping has been undertaken to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account for cable route refinement within the OECC to reduce the habitat loss or disturbance of potential spawning or nursery habitats, in particular for the most vulnerable species, such as herring and Nephrops. 		
MM29	10.6.2.3 Long-term Habitat Loss	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ Pre-construction benthic survey and habitat mapping has been undertaken to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account for cable route refinement within the OECC to reduce the habitat loss or disturbance of potential spawning or nursery habitats, in particular for the most vulnerable species, such as herring and Nephrops. 		
MM30	10.6.2.4	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ Mitigation by design has been incorporated throughout the Offshore Site. The use of gravity base fixed-bottom foundations avoids the need for drilling of foundations which can cause localised high SSC. Therefore, the highest concentrations are limited 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	Temporary Increase in SSC		<p>to the use of CFE and the surface release of dredged material by a dredger hopper, as discussed above. Nonetheless, the Project has committed to releasing dredged material through a fall pipe at a height of 5m above the seabed (rather than at sea surface) which significantly reduces the potential for dispersion of sediment and resettlement time.</p> <ul style="list-style-type: none"> ➤ Pre-construction benthic survey and habitat mapping has been undertaken to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account for cable route refinement within the OECC to reduce the habitat loss or disturbance of potential spawning or nursery habitats, in particular for the most vulnerable species, such as herring and Nephrops. ➤ The use of trenchless technologies at the landfall location will minimise the extent of seabed disturbance, thereby reducing elevated SSC in the water column. The implementation of an OEMP prior to construction will also serve as mitigation in ensuring that the discharges at the exit point are suitable for release into the marine environment. 		
MM31	10.6.2.5 Accidental Release of Pollutants	EIAR Chapter 10	<ul style="list-style-type: none"> ➤ Project activities will comply with marine pollution prevention measures required under the International Convention for the Prevention of Pollution from Ships (MARPOL) convention (see Chapter 8: Water and Sediment Quality for further information). The Project will adhere to the OEMP which describes measures for pollution prevention, biosecurity assessment and waste management, and a MPCP. The OEMP and MPCP will be implemented during construction. These documents will cover mitigation regarding waste management, and biosecurity. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Operational Phase					
MM32	10.6.3.1 Habitat Creation and Fish Aggregation 10.6.3.2 Temporary Increase in SSC	EIAR Chapter 10	➤ Pre-construction benthic survey and habitat mapping has been undertaken to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account for cable route refinement within the OECC to reduce the habitat loss or disturbance of potential spawning or nursery habitats, in particular for the most vulnerable species, such as herring and Nephrops.		
MM33	10.6.3.3 Electromagnetic Field effects	EIAR Chapter 10	➤ The key mitigation by design to reduce the EMF effects on fish and shellfish receptors is cable burial to a minimum depth of 1.0 m, where possible, and the installation of cable protection. There will be a degree of separation of fish and shellfish receptors from the source of EMF emissions, minimising the field strength likely to be encountered. Where cables are not buried, additional protection will be used in the form of cast-iron shells.		
MM34	10.6.3.4 Thermal Emissions from Operational Cables	EIAR Chapter 10	➤ The key mitigation by design to reduce the thermal emissions on fish and shellfish receptors is cable burial to a minimum depth of 1.0 m, where possible, and the installation of cable protection. There will be a degree of separation of fish and shellfish receptors from the source of thermal emissions.		
MM35	10.6.3.7 Ghost Fishing	EIAR Chapter 10	➤ Ongoing communication with the fishing industry (e.g. Notices to Mariners) to provide notice of any operation and maintenance activity, and 500 m safety zones will be in place during major maintenance works;		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Additionally, there will be ongoing monitoring of cable protection so that notices will be issued within 24 hours of any damage, destruction or decay of cables that could result in exposed cable; ➤ There will be procedures in place for dropped objects and claim processes for loss or damage of fishing gear; ➤ Guard vessels and a Fisheries Liaison Officer (FLO; where required) will be on-site, where appropriate, during major maintenance works to aid offshore communications and warnings of any hazards. 		
EIAR Chapter 11: Marine Ornithology					
Pre-Construction, Construction and Operational Phase					
MM35	11.8.3 Mitigation by Design – Air Gap	EIAR Chapter 11	<ul style="list-style-type: none"> ➤ Minimum air gap between lower blade tip and sea level was designed to be greater than 30 m LAT in order to minimise collision impacts on flying birds. 		
MM36	11.8.3 Mitigation by Design – Vessel Speeds	EIAR Chapter 11	<ul style="list-style-type: none"> ➤ Vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds and using consistent routes between ports and the OAA. This will reduce disturbance to offshore ornithology receptors relative to high-speed transiting. 		
MM37	11.8.3 Mitigation by Design – Project Plans	EIAR Chapter 11	<ul style="list-style-type: none"> ➤ Develop and implement a Project Offshore Environmental Management Plan (OEMP), and Invasive Non-Native Species Management Plan, a Code of Construction Practice (CoCP) and a Marine Pollution Contingency Plan (MPCP). ➤ These plans will include a commitment to measures to mitigate against pollution events, biosecurity measures, waste management, measures to avoid the introduction 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			and spread of Invasive Non-Native Species, adherence to the BWM Convention and other applicable international regulations, as well as containment procedures.		
MM38	11.8.3 Mitigation by Design – Cable Protection	EIAR Chapter 11	<p>➤ The use of cable protection will be minimised as far as practicable, and only used where required. Additional external cable protection (e.g. rock placement) will only be used where the minimum target burial depth cannot be achieved, for example in areas of hard ground or at third-party crossings.</p>		
MM39	11.8.3 Mitigation by Design – Decommissioning Programme	EIAR Chapter 11	<p>➤ Development of, and adherence to, a Decommissioning Programme prior to construction and updated throughout the Project lifespan. A Decommissioning Plan has been prepared for the Project (see Chapter 5: Project Description) the details of which will be agreed with the local authority prior to any decommissioning.</p>		
Decommissioning Phase					
MM40	11.8.7.1 Rehabilitation Schedule	EIAR Chapter 11	<p>➤ A Rehabilitation Schedule has been prepared for the Project (see Appendix 5-18), the details of which will be agreed with the local authority prior to any decommissioning. The Rehabilitation Schedule will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and will be agreed with the competent authority at that time.</p> <p>➤ Rock protection used for cables and/or seabed preparation material (e.g. stonebeds) is assumed to be left <i>in situ</i>. All rock berms will remain undisturbed. This method has the lowest environmental impact.</p>		
EIAR Chapter 12: Marine Mammals and Other Megafauna					
Pre-Construction Phase					

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM41	Mitigation by Design	EIAR Chapter 12	<ul style="list-style-type: none"> ➤ Cable burial: Cable burial to increase distance between cable and electro-sensitive species to EMF. However, where burial is not possible; cable protection, rock placement or other similar established techniques, increases the distance between marine species sensitive to EMF and the EMF source. The use of cable protection will be minimised as far as practicable, and only used where required. Additional external cable protection (e.g. rock placement) will only be used where the minimum target burial depth cannot be achieved, for example in areas of hard ground or at third-party crossings. ➤ Marine Mammal Mitigation Protocol (MMMP): Implementation and adherence to a Marine Mammal Mitigation Protocol during construction in accordance with NPWS (2014) guidance. This MMMP describes measures which will reduce impacts to marine mammals during activities that generate high-amplitude underwater sound, including UXO clearance and geophysical surveys. These measures include the use of visual observers to ensure no marine mammals are nearby at the commencement of activities, and the use of Acoustic Deterrent Devices to deter animals from the zone of greatest risk. The intention is to reduce the risk of injury to zero, and to limit disturbance to only incidental levels. ➤ VMP: Implementation and adherence to the VMP during all phases of the Project. This VMP describes measures which will reduce environmental impacts (including impacts to marine mammals) during Project activities involving vessels. Additionally, vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting. All vessels associated with the Project will comply with the provisions of the International Regulations for the Prevention of Collision at Sea (COLREGs) and the International Regulations for the Safety of Life at Sea (SOLAS). 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Reducing habitat loss: The Project has completed a pre-construction benthic survey and habitat mapping to inform habitat distribution and identify potential spawning or nursery habitats. Particularly sensitive habitats have been avoided during cable route and WTG location selection. ➤ UXO clearance: A preliminary assessment has been undertaken to be able to avoid UXO during Project planning. The preliminary assessment has not identified any UXO throughout the Offshore Site. Should a UXO be identified during further pre-construction surveys, the primary mechanism to mitigate impacts is to avoid the necessity to clear the UXO (e.g. avoidance within the cable corridor). Should avoidance not be possible, the preferred method of clearance would be low-order deflagration, which results in reduced sound levels compared to high order clearance. The assessment presented in sections 12.6.2.1.3 and 12.6.2.1.4 reflects the very low risk of encountering and subsequently needing to clear a UXO in situ. 		
Construction Phase					
MM42	12.6.2.1 Acoustic effects associated with construction (including pre-construction)	EIAR Chapter 12	<ul style="list-style-type: none"> ➤ Injury to marine mammals from construction sound: Injury will be fully mitigated during activities generating high amplitude sounds through the strict implementation of the National Parks and Wildlife Service (NPWS) guidelines (NPWS, 2014). The design selection of GBS fixed-bottom foundations at the OAA results in significantly lower emissions of underwater sound than would occur if piling was employed during the construction, because piling generates high-amplitude impulsive sound which can have a far greater potential for effects on marine mammals. The mitigation measures agreed as part of the Project's Foreshore Licences (FS007161 and FS007543) for site investigations also apply as measures during construction, for relevant and similar geophysical/geotechnical site investigation activities. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Disturbance to marine mammals from construction sound: the risk of disturbance will be mitigated through the strict implementation of measures including visual observations described within the NPWS guidelines and implemented and adhered to through Marine Mammal Mitigation Protocol, and through good environmental practices with respect to vessel movements which are described in detail in VMP. The use of GBS fixed-bottom foundations at the OAA results in significantly lower emissions of underwater sound than would occur if impact pile driving was employed during the construction, which generates high-amplitude impulsive sound which can have far greater effects on marine mammals. The mitigation measures agreed as part of the Foreshore Licence for site investigations also apply as measures during construction. ➤ Injury and disturbance to marine mammals from UXO clearance: Marine Mammal Mitigation Protocol (MMMP) will be strictly adhered to during both low-order and high-order UXO clearance. This MMMP contains mitigation measures including the use of visual observers to avoid injury and disturbance to marine mammals and has been developed with full regard to the NPWS (2014) Guidelines and industry good practice from other jurisdictions (UK Government, 2022). The MMMP describes the protocol for the use of acoustic deterrent devices to temporarily displace animals away from the highest risk (injury) zones, and marine mammal visual and acoustic observers to ensure that there are no marine mammals in close proximity (1,000 metres) of the UXO being cleared. 		
MM43	12.6.2.2 Indirect effects of construction sound on the prey species of marine	EIAR Chapter 12	<ul style="list-style-type: none"> ➤ Use of GBS fixed-bottom foundations which avoids the requirement for impact piling, which generates high-amplitude impulsive sound which would have far greater effects on acoustically sensitive species than those predicted for the Offshore Site; ➤ If UXO are not avoidable, low order deflagration will be the preferred method used for UXO clearance, reducing the effects from underwater sound; and 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	mammals and megafauna		<ul style="list-style-type: none"> Vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting and reduce the underwater sound effects associated with vessel sounds. 		
MM44	12.6.2.3 Disturbance due to the physical presence of vessels	EIAR Chapter 12	<ul style="list-style-type: none"> Vessel movements will be managed in a way that will mitigate the negative effects to marine mammals and megafauna. These measures are described in detail in VMP, including vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting and reduce the underwater sound effects associated with vessel sounds; and vessels will follow prescribed routes (non-random movement). 		
MM45	12.6.2.5 Impacts associated with effects upon marine water quality, particularly due to any disturbed sediments affecting turbidity	EIAR Chapter 12	<ul style="list-style-type: none"> Mitigation by design has been incorporated throughout the Offshore Site. The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which can cause localised high SSC. Therefore, the highest concentrations are limited to the use of CFE for seabed preparation and the surface release by a dredger hopper, as discussed above. A pre-construction cable route survey has been completed informing opportunities for optimisation of the Project Design and construction methodologies, to further reduce the potential for impacts. The completed survey has directly informed the potential presence of morphological features of interest in addition to requirement of seabed preparation activities, will also help reduce as far as practicable the scale of seabed clearance, thereby reducing the opportunity for elevated SSC. Disposal of dredged material from the TSHD will use a downpipe method to deposit spoil as close to the seabed as possible, thus reducing the potential sediment plume. The use of trenchless technologies at the landfall location, such as HDD, will minimise the extent of seabed disturbance, thereby reducing elevated SSC in the water column. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM46	12.6.2.6 Impacts associated with effects upon marine water quality due to any accidental release of pollutants	EIAR Chapter 12	<ul style="list-style-type: none"> Support and installation vessels operating during the construction phase will operate in accordance with best practice and maritime conventions including the MARPOL and BWM conventions. Adherence to these conventions seek to avoid, prevent and reduce the likelihood that vessel operations result in pollution events to the marine environment, including from routine discharges which are prohibited as per MARPOL IV. Additionally, control measures and SOPEPs will be established and adhered to, if required, under MARPOL Annex I. Mitigation by prevention will be implemented to ensure that the potential release of contaminants and pollutants is minimised, including through the implementation of an Offshore Environmental Management Plan, comprising inter alia a VMP and MPCP. These plans describe measures for compliance with international requirements of MARPOL, as well as best practice for works in the marine environment (e.g. preparation of SOPEP). In this manner, accidental release of potential contaminants from operation and maintenance vessels will be strictly controlled and procedures will be in place to minimise the effect of any accidental release if it occurs. 		
Operational Phase					
MM47	12.6.3.4 Disturbance due to the physical presence of vessels 12.6.3.5 Risk of injury resulting from collision of marine	EIAR Chapter 12	<ul style="list-style-type: none"> Vessel movements will be managed in a way that will mitigate the negative effects to marine mammals and megafauna. These measures are described in detail in the VMP, including: <ul style="list-style-type: none"> Vessels engaged in construction works will typically be travelling at slow (<6 kts) speeds. This will reduce sound emissions relative to high-speed transiting and reduce the underwater sound effects associated with vessel sounds; and Vessels will follow prescribed routes (non-random movement). 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	mammals and megafauna with operations and maintenance vessels				
MM47	12.6.3.6 Risk associated with electromagnetic fields (EMFs) associated with subsea cabling	EIAR Chapter 12	<p>➤ Mitigation by design has been incorporated through cable burial, where the cable will be buried to a minimum depth of 1 m, or through the use of cable protection measures (including CIS), therefore increasing the distance between the receptor and the cable and reduces the potential for exposure to high strength magnetic fields.</p>		
MM48	12.6.3.7 Impacts associated with effects upon marine water quality due to any accidental release of pollutants	EIAR Chapter 12	<p>➤ Vessels operating during the operation and maintenance phase will operate in accordance with best practice and maritime conventions including the MARPOL and BWM conventions. Adherence to these conventions seek to avoid, prevent and reduce the likelihood that vessel operations result in pollution events to the marine environment, including from routine discharges which are prohibited as per MARPOL IV. Additionally, control measures and SOPEPs (for oil tankers of 150 gross tonnage and above and all vessels of 400 gross tonnage and above) will be established and adhered to, if required, under MARPOL Annex I.</p> <p>➤ Mitigation by prevention will be implemented to ensure that the potential release of contaminants and pollutants is minimised, including through the implementation of an Offshore Environmental Management Plan comprising <i>inter alia</i> a VMP and MPCP. These plans describe measures for compliance with international requirements of MARPOL, as well as best practice for works in the marine environment (e.g.</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			preparation of SOPEP). In this manner, accidental release of potential contaminants from operation and maintenance vessels will be strictly controlled and procedures will be in place to minimise the effect of any accidental release if it occurs.		
MM49	12.6.3.7.2 Accidental release from WTGs and OSS	EIAR Chapter 12	<ul style="list-style-type: none"> The WTG including the nacelle, tower, and rotor and OSS structures are designed to contain any potential leaks. The containment design of the WTG / OSS sections will therefore significantly reduce the risk of potential spills contaminating the marine environment. Additionally, for the planned oil transfers the transfer of potential pollutants to WTG's/OSS will be meticulously planned and will follow all relevant guidelines. 		
MM50	12.6.3.8 Habitat change, including the potential for change in foraging opportunities	EIAR Chapter 12	<ul style="list-style-type: none"> Mitigation measures are in place to reduce the habitat loss or disturbance to fish and shellfish spawning or nursey habitats. This includes pre-construction benthic survey and habitat mapping that have been undertaken to inform habitat distribution and identify potential spawning or nursery habitats. This information has been taken into account during cable route refinement within the OECC, including the avoidance of sensitive habitats and the minimisation of cable installation over reef-like rocky habitat. 		
EIAR Chapter 13: Commercial Fisheries					
Pre-Construction Phase					
MM51	Mitigation by Design	EIAR Chapter 13	<ul style="list-style-type: none"> Development and adherence to a VMP. All vessels associated with the Project will comply with the provisions of the International Regulations for the Prevention of Collision at Sea (COLREGs) and the International Regulations for the Safety of Life at Sea (SOLAS). 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> Proactive consultation with key stakeholders within the fishing industry will adhere to best practice guidance. Development and adherence to a Fisheries Management and Mitigation Strategy (FMMS). Appointment of a Fisheries Liaison Officer (FLO) and the use of guard vessels and Offshore Fisheries Liaison Officers (OFLOs) where required. Notifications (prior to construction) will be given in a Notice to Fishermen (Notice to Mariners (NtMs)) which will be published in the relevant fishing journals and online portals (e.g., The Marine Times, The Irish Skipper, Kingfisher Fortnightly Bulletin). Procedures for dropped objects and claim processes for loss/damage of fishing gear/vessels – mitigation by prevention. Development of cooperation agreements through discussions with affected fishers in line with the findings of the Seafood ORE Working Group and best practice guidance (e.g., FLOWW, 2015). 		
Construction Phase					
MM53	13.7.2.1 Loss of access to fishing grounds	EIAR Chapter 13	<ul style="list-style-type: none"> Mitigation by design has been incorporated as the cable was routed through an area with low density of burrows and very low level of fishing activity to lessen potential effects on commercial fisheries receptors; The works will be completed in a very short period of time; and There will be mitigation by reduction through appointment of an FLO. Communication with local vessels will be maintained prior to works via NtMs, the FLO, and the use of guard vessels and OFLO where required (i.e. potential hazards). 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Mitigation by design measures as detailed in Section 13.4.3.4; ➤ Communication with local vessels will be maintained prior to works via NtMs and the FLO. During periods where no construction works are underway, if required, the site will be marked or guard vessels will be present around potential hazards (e.g. unprotected infrastructure), which may further restrict access; and ➤ There will be development of cooperation measures through discussions with affected fishers to ensure co-existence during the construction phase. This will be in line with the outcome of the discussions currently underway for the ORE Seafood Working Group. 		
MM54	13.7.2.2 Displacement of fishing activity into other areas	EIAR Chapter 13	<ul style="list-style-type: none"> ➤ Development of cooperation agreements through discussions with affected fishers in line with the findings of the Seafood ORE Working Group and best practice guidance (e.g. FLOWW, 2015) ➤ Communication with local vessels will be maintained prior to works via NtMs, the FLO, and the use of guard vessels and OFLO where required (i.e. potential hazards). ➤ Communication with local vessels will be maintained prior to works via NtMs and the FLO. During periods where no construction works are underway, if required, the site will be marked, or guard vessels will be present around potential hazards (e.g. unprotected infrastructure); and ➤ There will be development of cooperation measures through discussions with affected fishers to ensure co-existence during the construction phase. This will be in line with the outcome of the discussions currently underway for the ORE Seafood Working Group. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM55	13.7.2.3 Interference to fishing activity due to increased vessel traffic	EIAR Chapter 13	<ul style="list-style-type: none"> ➤ Mitigation by prevention as a VMP, NSP and FMMS will be developed to further reduce any potential effects from the increased vessel traffic during construction and decommissioning; ➤ Additionally, guard vessels and an OFLO will be on site where appropriate to aid in communications and warn of any hazards within the Offshore Site. There will be ongoing liaison with the fishing industry through the FLO. Prior to any construction works there will be promulgation of information through NtMs and all relevant channels; and ➤ There will be development of cooperation measures through discussions with affected fishers to ensure co-existence during the construction phase. This will be in line with the outcome of the discussions currently underway for the ORE Seafood Working Group. ➤ There will be mitigation by reduction as there will be ongoing liaison with the fishing industry through the FLO. Prior to any construction works there will be promulgation of information through NtMs and all relevant channels, including the presence of safe routes will be marked out for vessels to navigate around the OAA during construction dependent on vessel size (e.g. routes for smaller and larger vessels). 		
MM56	13.7.2.4 Safety issues for fishing vessels	EIAR Chapter 13	<ul style="list-style-type: none"> ➤ There will be ongoing consultation with the fishing industry via the FLO, and communication will be maintained offshore through use of OFLO and guard vessels as necessary to inform of hazards; and ➤ Additionally, as part of the mitigation by design, there will be procedures for dropped objects and claim processes for loss or damage of fishing gear / vessels. ➤ Temporary advisory safety clearance ranges will be implemented around objects under construction 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Operational Phase					
MM57	13.7.3.1 Loss of access to fishing grounds	EIAR Chapter 13	<ul style="list-style-type: none"> ➤ Mitigation by reduction as there will be ongoing communication with fishers prior to works (e.g. NtMs, Kingfisher Bulletin) so that vessels can plan around the localised, temporary maintenance activities; and ➤ Additionally, there will be mitigation by prevention as there will be cable monitoring throughout the operational life of the Project to monitor for damage, destruction or decay of cables, and the appropriate regulatory bodies will be notified within 24 hours of discovery any issues. ➤ Mitigation by reduction as there will be ongoing communication with fishers prior to works so that vessels can plan around the localised, temporary maintenance activities; ➤ There will be development of cooperation measures through discussions with affected fishers to ensure co-existence during the operational phase during major maintenance works. This will be in line with the outcome of the discussions currently underway for the ORE Seafood Working Group. 		
MM58	13.7.3.3 Interference to fishing activity due to increased vessel traffic.	EIAR Chapter 13	<ul style="list-style-type: none"> ➤ Mitigation by prevention as a VMP, NSP and FMMS will be developed to further reduce any potential effects from the increased vessel traffic during operation; and ➤ There will be ongoing liaison with the fishing industry through the FLO during maintenance. Prior to any maintenance activities there will be promulgation of information through NtMs and all relevant channels. Additionally, guard vessels and an OFLO will be on site where appropriate to aid in communications and warn of any hazards within the Offshore Site. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM59	13.7.3.5 Increased steaming times	EIAR Chapter 13	<ul style="list-style-type: none"> There will be mitigation by reduction as there will be ongoing liaison with the fishing industry through the FLO. Prior to any maintenance works there will be promulgation of information through NtMs and all relevant channels. 		
MM60	13.7.3.6 Safety issues for fishing vessels	EIAR Chapter 13	<ul style="list-style-type: none"> There will ongoing communication with the fishing industry (e.g. NtMs) to provide notice of any operation and maintenance activity, and 500 m advisory safety clearance ranges will be in place; Additionally, there will be ongoing monitoring of cable protection so that notices will be issued within 24 hours of any damage, destruction or decay of cables that could result in exposed cable; There will be procedures in place for dropped objects and claim processes for loss or damage of fishing gear; and Guard vessels and an OFLO (where required) will also be onsite, where appropriate, during major maintenance works to aid offshore communications and warnings of any hazards. 		
EIAR Chapter 14: Shipping and Navigation					
Pre-construction Phase					
MM61	Mitigation by Design		<ul style="list-style-type: none"> Advisory safe passing distances: Advisory safe passing distances will be implemented around a construction, maintenance, or decommissioning vessel undertaking ongoing work, as well as operational wind farm assets (i.e. WTG, OSS). It is anticipated that these will include recommended safe clearance of 50m from installed structures, and 500m from construction works or major maintenance activities. It is noted that there is no mechanism for deployment of statutory safety zones in Irish waters and therefore 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>the application of advisory safe passing distances is considered a suitable alternative means of mitigating risk.</p> <ul style="list-style-type: none"> ➤ Buoyed construction area: A buoyed construction (or decommissioning) area around the array area will be implemented during the construction phases in agreement with Irish Lights. ➤ Cable protection: Cable protection (via burial or external protection where burial is not possible) will be implemented and monitored, with any damage, destruction, or decay of cables notified to appropriate regulatory bodies no later than 24 hours after being discovered. ➤ Compliance with MGN 654 and its annexes: The Project will be compliant with UK MGN 654 (MCA, 2021) noting that, as per Section 14.2.3, draft guidance has been published by the DoT for OREIs in Irish waters and closely resembles MGN 654. ➤ Decommissioning Plan: A Decommissioning Plan has been developed and will be updated prior to the start of decommissioning works. This includes details of how the subsea cables and associated protection (left in situ) will be routinely monitored post-decommissioning to ensure that there is no further change to under keel clearance or increased risk of anchor interaction. ➤ Guard vessel(s): Where appropriate, guard vessels will be used to ensure adherence with advisory passing distances. ➤ Liaison with IRCG in relation to SAR resources: The Applicant will liaise with the IRCG in relation to SAR resources to ensure suitable emergency response plans and procedures are in place, with consideration of the National SAR Plan (Government of Ireland, 2019). 		



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> Lighting and marking: Lighting and marking of the array will be in compliance with IALA Recommendation O-139 and Guideline G1162 (IALA, 2021b/2021a) and agreed with Irish Lights Marine coordination for project vessels: Marine coordination will be implemented to manage project vessel movements. MPCP: An MPCP has been developed in accordance with MARPOL requirements outlining procedures to protect personnel working and safeguard the environment should a pollution event occur. Marking on nautical charts: There will be appropriate marking of all offshore infrastructure associated with the Offshore Site on UKHO Admiralty charts. Minimum blade clearance: There will be a minimum blade clearance of 27.5 m above Highest Astronomical Tide (HAT) which is in line with MGN 654 and RYA recommendations (RYA, 2019). Project vessel compliance with international marine regulations: All project vessels will comply with international marine regulations as adopted by the Flag State including the COLREGs (IMO, 1972/77) and SOLAS (IMO, 1974). Promulgation of information: Information for vessel routes, timings and locations, advisory safe passing distances will be circulated principally via Notices to Mariners but also via any other appropriate media including the Fisheries Liaison Officer (FLO). 		
Construction and Decommissioning Phase					

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM62	14.6.2.1 Displacement of Third-Party Vessels and Resulting Increased Collision Risk	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Advisory safe passing distances; ➤ Guard vessel(s); ➤ Lighting and marking; ➤ Marking on nautical charts; and ➤ Promulgation of information. 		
MM63	14.6.2.2 Collision Risk Between Third-Party Vessels and Project Vessels	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Advisory safe passing distances; ➤ Buoyed construction area; ➤ Guard vessel(s); ➤ Lighting and marking; ➤ Marine coordination for project vessels; ➤ Marking on nautical charts; ➤ Pollution planning; ➤ Project vessel compliance with international marine regulations; and ➤ Promulgation of information. 		
MM64	14.6.2.3 Reduced Access to Local Ports	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Lighting and marking; ➤ Marine coordination for project vessels; ➤ Marking on nautical charts; 		



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ Project vessel compliance with international marine regulations; and ➤ Promulgation of information. 		
Operational Phase					
MM65	14.6.2.1 Displacement of Third-Party Vessels and Resulting Increased Collision Risk	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Advisory safe passing distances; ➤ Guard vessel(s); ➤ Lighting and marking; ➤ Marking on nautical charts; and ➤ Promulgation of information. 		
MM66	14.6.2.2 Collision Risk Between Third-Party Vessels and Project Vessels	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Advisory safe passing distances; ➤ Buoyed construction area; ➤ Guard vessel(s); ➤ Lighting and marking; ➤ Marine coordination for project vessels; ➤ Marking on nautical charts; ➤ Pollution planning; ➤ Project vessel compliance with international marine regulations; and ➤ Promulgation of information. 		



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM67	14.6.2.3 Reduced Access to Local Ports	EIAR Chapter 14	<ul style="list-style-type: none">➤ Lighting and marking;➤ Marine coordination for project vessels;➤ Marking on nautical charts;➤ Project vessel compliance with international marine regulations; and➤ Promulgation of information.		
MM68	14.6.2.4 Creation of Third-Party Allision Risk	EIAR Chapter 14	<ul style="list-style-type: none">➤ Advisory safe passing distances;➤ Buoyed construction area;➤ Compliance with MGN 654;➤ Lighting and marking;➤ Marine coordination for project vessels;➤ Marking on nautical charts;➤ Minimum blade clearance;➤ Pollution planning; and➤ Promulgation of information.		
MM69	14.6.2.7 Reduction in Emergency	EIAR Chapter 14	<ul style="list-style-type: none">➤ Compliance with MGN 654 and its annexes;➤ Guard vessel(s);➤ Marine coordination for project vessels;		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	Response Capability		<ul style="list-style-type: none"> ➤ Pollution planning; and ➤ Project vessel compliance with international marine regulations. 		
MM70	14.6.2.5 Reduction in Under-Keel Clearance due to Cable Protection	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Cable protection; ➤ Compliance with MGN 654 and its annexes; ➤ Decommissioning Plan; ➤ Marking on charts; ➤ Pollution planning; and ➤ Promulgation of information. 		
MM71	14.6.2.6 Anchor Interaction with Subsea Infrastructure	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Cable protection; ➤ Compliance with MGN 654 and its annexes; ➤ Decommissioning Plan ➤ Marking on nautical charts; and ➤ Promulgation of information. 		
Decommissioning Phase					
MM72	14.6.2.5 Reduction in Under-Keel	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Cable protection; ➤ Compliance with MGN 654 and its annexes; ➤ Decommissioning Plan; 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	Clearance due to Cable Protection		<ul style="list-style-type: none"> ➤ Marking on charts; ➤ Pollution planning; and ➤ Promulgation of information. 		
MM73	14.6.2.6 Anchor Interaction with Subsea Infrastructure	EIAR Chapter 14	<ul style="list-style-type: none"> ➤ Cable protection; ➤ Compliance with MGN 654 and its annexes; ➤ Decommissioning Plan ➤ Marking on nautical charts; and ➤ Promulgation of information. 		
EIAR Chapter 15: Civil and Military Aviation					
Pre-construction Phase					
MM74	Mitigation by Design	EIAR Chapter 15	<ul style="list-style-type: none"> ➤ A Lighting and Marking Plan (LMP) has been prepared which sets out specific requirements in terms of aviation lighting to be installed on the wind turbine generator. The LMP will be further developed in consultation with the Irish Aviation Authority (IAA), Department of Defence (DoD) and Irish Coast Guard (IRCG). It will take into account DoD's requirement that wind turbine generators are observable to night vision equipment. The LMP is included in Appendix 5-9: Lighting and Marking Plan. ➤ IAA and IRCG will be consulted on the final layout of the Project to ensure compatibility with search and rescue (SAR) helicopter operations in the event of rescue missions within the site. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> > A minimum spacing of 500 m shall be maintained between blade tip to blade tip of all WTGs. > An Emergency Response and Cooperation Plan (ERCoP) will be in place for the Project. The ERCoP will refer to the marking and lighting of the wind turbine generators and will consider helicopters undertaking SAR operations when rendering assistance to vessels and persons in the vicinity of the Project. An ERCoP is included in Appendix 5-4: ERCoP. The LMP is also included as Appendix 5-9 > The IAA will be informed of the locations, heights and lighting status of the wind turbines generators, including estimated and actual dates of construction and the maximum heights of any construction equipment to be used, prior to the start of construction, to allow inclusion on aviation charts and in the IAA Integrated Aeronautical Information Publication (IAIP). > All structures > 90 m amsl in height will be charted on aeronautical charts and reported to the IAA at least three months prior to construction, for input into the IAA's database of tall structures in Ireland. > Any temporary obstacles associated with wind farms which are of more than 90 m in height are to be alerted to aircrews by means of the Notice to Aviation (NOTAM) system. 		
Operational phase					
MM75	Mitigation by Design	EIAR Chapter 15	<ul style="list-style-type: none"> > During the operational phase, the operator of the Project will issue, as necessary, requests to the IAA to submit Aeronautical Information Circulars in the event of any failure of aviation lighting. Any light which fails shall be repaired or replaced as soon as is reasonably practicable. An alerting system for light failure will be put in place, such as remote monitoring or other suitable method agreeable to the IAA. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
EIAR Chapter 16: Seascape and Landscape Visual Impact Assessment					
Construction Phase					
MM76	16.7.1.2.1 Mitigation by design – SCA5 - Atlantic North Mayo and Galway	EIAR Chapter 16	<ul style="list-style-type: none"> ➤ Vessel traffic and activities within the OECC and OAA will be noticeable from this SCA but only from the coastline and sea area south of Slyne Head where the construction activities and incremental installation of the WTGs will be visible in long-shore views to the southeast. These views are generally flanked and backed by coastline and the offshore Aran Islands rather than impacting on the open sea horizon to the south and west. In this respect the activities are contained by coastal landform rather than located within the wild and windswept setting of the Atlantic Ocean where the sense of scale, distance and openness might be diminished. ➤ The largest scale construction related effects will be associated with the OWF and the emerging WTGs and OSS and these will occur between 15km and 21km from the nearest point of this SCA – a considerable distance where water surface activity may be screened by earth curvature. ➤ An undersea OEC will be placed across the seabed and will be buried or laid on the seabed with rock armour protection as appropriate in different sections, but they will not be visible and will not have an impact on the Seascape. Only the cable laying vessels will be potentially visible during the construction stage and at a considerable distance of 20km+ as the OEC will be laid in a southerly direction from the OAA in the opposite direction to this SCA. ➤ The context of construction stage offshore activities is a coastal environment containing some commercial shipping into Galway Port and Rossaveel Harbour. There are also passenger ferry routes and local fishing fleets contributing to productive 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			maritime activity, modest in scale and intensity, but it is commonplace and contributes to baseline seascape character.		
MM77	16.7.1.2.1 Mitigation by design – SCA 6 - Atlantic Galway Bay and Islands	EIAR Chapter 16	<ul style="list-style-type: none"> ➤ An undersea OEC will be placed across the seabed and will be buried or laid on the seabed with rock armour protection as appropriate in different sections, but the OEC will not be visible and will not have an impact on the Seascape. ➤ The cable laying vessel will be noticeable as it makes its way south from the OAA around the western end of Inishmore Island on the way to the Clare coastline west of Doonbeg. This will be a temporary and transient operation undertaken by a vessel which will not appear as an ambiguous or even conspicuous feature in this seascape setting. 		
MM78	16.7.1.2.1 Mitigation by Design – Landscape Character Area	EIAR Chapter 16	<ul style="list-style-type: none"> ➤ Vessel traffic and activities within the OECC and OAA are unlikely to be noticeable from this SCA given the viewing distances involved as well as intervening landform from the lower lying West Connemara bog and South Connemara uplands. ➤ The incremental installation of the WTGs will be seen in clear viewing conditions, but at considerable remove from this inland landscape. The emerging WTGs will introduce tall built features into the distant aspects of the coastal views afforded from here and will serve as a distant focal point. This will increase the scale and intensity of built development within the broader setting of this landscape, which is otherwise characterised by small scale / low intensity development of a traditional nature. Nonetheless, the emerging WTGs will be perceived as discrete from the upland landscape area. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Operational Phase					
MM79	16.7.1.2.3 Mitigation by Design - SCA5 – Atlantic North Mayo and Galway	EIAR Chapter 16	<ul style="list-style-type: none"> ➤ According to the ZTV maps, the WTGs will be openly visible from limited parts of this SCA and principally from the coastline and sea area south of Slyne Head. The WTGs will also be visible at greater distances from north of Slyne head where the westernmost coastline and offshore islands are afforded visibility across Slyne Head as well as from the southern side of more elevated peninsulas and promontory headlands just back from the coastline. ➤ These views are generally flanked and backed by complex coastline and the offshore Aran Islands rather than intruding on the open sea horizon to the south and west. In this respect the WTGs are contained by coastal landform rather than located within the wild and windswept setting of the Atlantic Ocean where the sense of scale, distance and openness might be diminished. ➤ Although new to the seascape to the south, the development is not an ambiguous feature as there will be a perceptual connection between the remote windswept setting and the WTGs which have been placed to take advantage of that exposure. There will be a sense that the WTGs are peripheral and discrete to this Seascape Area, which predominately relates to the coastal setting to the north of Slyne Head. 		
MM80	16.7.1.2.3 Mitigation by Design - SCA 6 - Atlantic Galway Bay and Islands	EIAR Chapter 16	<ul style="list-style-type: none"> ➤ According to the ZTV maps, the WTGs will be openly visible from parts of this SCA and principally from the sea and exposed coastline of central and south Connemara from Slyne Head to the north Clare coastline, including the Aran Islands. Many areas contained within indented bays and inlets without a clear view of open sea are also excluded from views of the WTGs. ➤ From the north and south of the Offshore Site, these views are generally flanked and backed by complex coastline and the offshore Aran Islands rather than intruding on the open sea horizon to the west. The viewing context of the OAA is more directly 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>offshore from Mweenish and Gorumna, albeit still framed by coastal headlands and islands.</p> <ul style="list-style-type: none"> > In this respect the WTGs are somewhat contained by coastal landform rather than located within the wild and windswept setting of the open Atlantic Ocean where the sense of scale, distance and openness might be diminished. > Although new to this host seascape, the development is not an ambiguous feature as there will be a perceptual connection between the remote windswept setting and the WTGs which have been placed to take advantage of that exposure. The OAA will be a prominent focus of offshore views from within the nearest portions of this seascape unit, but more peripheral and discrete relative to the coastal setting of Galway Bay and the north Clare seascape beyond the Aran Islands. 		
MM81	16.7.1.2.3 Mitigation by Design – Landscape Character Area	EIAR Chapter 16	<ul style="list-style-type: none"> > The WTGs will range between fully and partially visible as well as fully screened from this SCA given the viewing distances involved. The OAA will be seen in clear viewing conditions, but at considerable remove from this inland landscape. > The WTGs will introduce tall built features into the distant aspects of the coastal views afforded from here and will serve as a distant focal point. Nonetheless, the WTGs will be perceived as discrete from the upland landscape area. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
EIAR Chapter 17: Marine Archaeology and Cultural Heritage					
Pre-construction Phase					
MM82	Embedded Mitigation/Mitigation by Design	EIAR Chapter 17	<ul style="list-style-type: none"> ➤ Committed to trenchless installation methods, i.e. HDD or direct pipe. at the proposed Landfall. ➤ All geophysical surveys, geotechnical surveys, archaeological dive surveys, ROV surveys, hand-held metal detection surveys and intertidal surveys will be licensed under the National Monuments Acts 1930-2014, results will be assessed and reported by a suitably qualified archaeologist. ➤ All marine geophysical surveys will be carried out in compliance with the UAU guidance General Requirements for Geophysical Survey for Archaeological Purposes, and the results will be assessed and reported by a suitably qualified archaeologist. ➤ As part of the continued survey of the development area, geoarchaeological assessments of deposits of archaeological potential, following an approved method statement will be undertaken, results will be assessed and reported by a suitably qualified archaeologist. Archaeological Exclusion Zones (AEZ) around known wrecks and potential receptors, as identified in the archaeological assessment of baseline and geophysical data will be put in place. All activities interfering with the seabed during all Project phases must be micro sited to avoid the AEZs which may be altered, increased, reduced, or removed as more information on the receptor becomes available. General interference with wrecks over 100 years old and archaeological objects underwater is prohibited under Section 3 of the National Monuments (Amendment) Act 1987. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> > An Archaeology Management Plan document summarising the responsibilities and commitments of all parties involved in the protection of marine archaeology will be produced and agreed. > The implementation of a Protocol of Archaeological Discovery (PAD) facilitating dialogue between on-site offshore development contractors, the developer, the archaeological curators, and the retained archaeologist mitigating the impact on unexpected archaeological discoveries. > If any Project activities are necessary within the established AEZs, the Department for Culture Heritage and Gaeltacht (DCHG) will be informed prior to any works being undertaken as a detailed archaeological investigation may be required prior to or during such works. In such case, a full method statement detailing any planned developmental and archaeological works will be submitted to the DCHG before any works commence. > Where relevant, and if impact to marine archaeology receptors is anticipated during intrusive activities or if material will be moved or removed from the seabed a watching brief (undertaken by an appropriately qualified and approved archaeologist) may be required. > Monitoring activities may be undertaken during, and following construction, in those cases a monitoring plan will be developed, all relevant activities will be licensed under the National Monuments Acts 1930-2014 and the results will be assessed and reported by a suitably qualified archaeologist. > An Offshore Decommissioning Plan will be submitted with the application. Underwater archaeology mitigations will be reviewed and updated prior to decommissioning activities taking place. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
Construction Phase					
MM83	<p>17.5.4.1 Removal of sediment containing undisturbed archaeological contexts during seabed preparation</p> <p>17.5.4.2 Compression of stratigraphic contexts containing archaeological material from combined weight of foundation, transition piece, tower, and WTG</p> <p>17.5.4.3 Disturbance of sediment</p>	<p>EIAR Chapter 17</p>	<ul style="list-style-type: none"> ➤ Locations on the seabed of potential and confirmed Historic Environment receptors are informed by the archaeological assessment of geophysical and geotechnical data and AEZs will be put in place, ensuring mitigation by avoidance. ➤ Mitigation by avoidance aims to ensure that there is no direct, indirect or permanent impact on Historic Environment within the Marine Archaeology Study Area. ➤ Where avoidance is not possible or in case of not yet located Historic Environment further mitigation and archaeological works are detailed in the AMP. 		



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	containing potential marine archaeology receptors (material and contexts) during the laying of inter-array cables and offshore export cable laying operations 17.5.4.4 Penetration and compression effects of jack-up vessels and anchoring of construction vessels during WTG, sub-station, or cable installation				
Operational Phase					



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM84	17.5.5.1 Scour effects caused by the presence of WTG and substation foundations, causing, or accelerating loss of the receptor 17.5.5.2 Exposure and replacement of inter-array and offshore export cable activities or the use of cable protection measures (such as remedial cable burial) 17.5.5.3 Penetration and compression effects caused by corrective and	EIAR Chapter 17	> Locations on the seabed of potential and confirmed Historic Environment receptors are informed by the archaeological assessment of geophysical and geotechnical data and AEZs will be put in place, ensuring mitigation by avoidance. Mitigation by avoidance aims to ensure that there is no direct, indirect or permanent impact on Historic Environment within the Marine Archaeology Study Area		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	preventative operation and maintenance activities (via jack-up vessels or anchors)				
Decommissioning Phase					
MM85	<p>17.5.6.1 Draw-down of sediment into voids left by removed WTG foundations leading to loss of sediment, causing, or accelerating loss of the receptor.</p> <p>17.5.6.2 Penetration and compression effects of jack-up vessels and anchoring of</p>	EIAR Chapter 17	<ul style="list-style-type: none"> ➤ Locations on the seabed of potential and confirmed Historic Environment receptors are informed by the archaeological assessment of geophysical and geotechnical data and AEZs will be put in place, ensuring mitigation by avoidance. ➤ Mitigation by avoidance aims to ensure that there is no direct, indirect or permanent impact on Historic Environment within the Marine Archaeology Study Area 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	decommissioning vessels.				
EIAR Chapter 18: Other Users of the Marine Environment					
Pre-construction Phase					
MM86	Embedded Mitigation	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ Dissemination of information (including a Notice to Mariners (NtM), Kingfisher notifications and navigational warnings): Information on Project location and activities will be shared with key stakeholders prior to the commencement of any works through NtM, Kingfisher notifications and navigational warnings. Statutory and advisory safe clearance ranges to be implemented around Project vessels will also be advertised prior to the mobilisation of Project vessels. Ongoing consultation with key asset owners and recreational users of the marine environment (as identified through a Community Liaison Officer (CLO)) will be undertaken throughout the lifecycle of the Project, with advanced notice given of any potential obstruction or interference with existing operations and activities. ➤ Crossing and proximity agreements: Crossing and proximity agreements with existing submarine cable operators and asset owners will be established prior to the commencement of any construction works. Ongoing consultation will be undertaken throughout the lifecycle of the Project with all relevant third parties. ➤ Implementation and adherence to a Lighting and Marking Plan: Vessel and infrastructure lighting and marking will be in place to facilitate any required Search and Rescue (SAR) operations ➤ Charting of infrastructure: All installed infrastructures will be detailed on nautical and admiralty charts and within relevant publications. The requirements for charting of 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>infrastructures will be agreed with Irish Lights, the Marine Survey Office and the Irish Aviation Authority.</p> <ul style="list-style-type: none"> ➤ Compliance with the National Maritime Oil & HNS Spill Contingency Plan (NMOSCP): The NMOSCP includes a number of guidance documents and standard operating procedures and their appendices which address key elements of effective preparedness and response. ➤ NMOSCP establishes a national framework and strategy to coordinate marine pollution preparedness and response. It addresses all oil and HNS pollution whether it originates from ships, harbours, offshore units or oil/HNS handling facilities and land-based sources. All operations will be undertaken in compliance with the NMOSCP. 		
Construction Phase					
MM87	18.6.2.2 Obstruction to cable installations	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ The development of a Cable Plan will include a cable crossing methodology, including the need for any cable protection measures. Any crossing and /or proximity agreements will be agreed between the Applicant and Farice to ensure no damage or detrimental interference occurs to this asset or the Project Offshore Export Cable(s). The cable route has been designed so that the crossing will be perpendicular to reduce overlap in so far as possible. 		
MM88	18.6.2.3 Obstruction to Marine Recreational Users	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ Mitigation by consultation: Where there is the potential for disruption to marine recreational activities, embedded mitigation measures will be adopted, including the dissemination of information to all marine recreational users in advance of any construction activities. Throughout the construction phase of the Project, ongoing engagement will be undertaken with key stakeholders (including scuba diving and snorkelling centres, Blue Flag beach operators and local ports and marina) to ensure that any activities associated with the construction of the Offshore Site, including the type of construction vessels required, their location within the marine environment and 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			their period of activity, is clearly conveyed prior to the commencement of any construction activities.		
MM89	18.6.2.4.2 Potential effects on aquaculture sites relating to changes in water quality	EIAR Chapter 18	<p>➤ SSC and release of contaminated sediment: Mitigation by design (avoidance/prevention) has been incorporated throughout the Offshore Site. The use of GBS fixed-bottom foundations avoids the need for drilling of foundations which can cause localised high SSC and release of contaminated sediment. Therefore, the highest concentrations are limited to the release of dredged material by a dredger hopper, as discussed above. Nonetheless, the Project has committed to releasing dredged material through a fall pipe at a height of 5m above the seabed (rather than at sea surface) which significantly reduces the potential for dispersion of sediment and resettlement time. The use of trenchless technologies at the landfall location, such as HDD, will minimise the extent of seabed disturbance, thereby reducing elevated SSC in the water column. The implementation and adherence to an OEMP for construction will also implement measures to ensure that the discharges at the trenchless landfall pop-out are suitable for release into the marine environment.</p> <p>➤ Vessel pollution: Mitigation by avoidance/prevention has been incorporated throughout the offshore site. The embedded mitigations, and installation vessels operating during the construction phase will operate in accordance with best practice and maritime conventions including the International Convention for the Prevention of Pollution from Ships (MARPOL) and The Ballast Water Management Convention (BWM) conventions. Adherence to these conventions seek to avoid, prevent and reduce the likelihood that vessel operations result in pollution events to the marine environment, including from routine discharges which is prohibited, except when the ship has in operation an approved sewage treatment plant or when the ship is discharging comminated and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land as per MARPOL IV. Additionally, control measures and Shipboard Oil Pollution Emergency Plan</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			(SOPEPs) (for oil tankers of 150 gross tonnage and above and all vessels of 400 gross tonnage and above) will be established and adhered to, if required, under MARPOL Annex I. Furthermore, the Project has developed and will adhere to the EMP and its annexes which include a Marine Pollution Contingency Plan (MPCP) and Invasive Non-Native Species (INNS) management plan in order to reduce the likelihood of pollution events and to ensure procedures are in place should an accidental release occur. These protocols will ensure potential pollution is contained and rectified quickly. Additionally, emergency response procedures will be in place for the Offshore Site, should an emergency situation occur, including any pollution incidents.		
MM90	18.6.2.7 Obstruction to spoil disposal activities	EIAR Chapter 18	➤ Mitigation by consultation: The potential temporary anchorage of Project infrastructure within the Shannon Estuary will be coordinated by Shannon Foynes Port. Through this, any works associated with the temporary anchorage of infrastructure and the operations of Project vessels within the Shannon Estuary will be managed by the Harbour Authority to reduce any potential impacts to spoil dumping operations within the Shannon Estuary.		
Operational Phase					
MM91	18.6.3.1 Obstruction to offshore renewable energy developments as a result of operational activities	EIAR Chapter 18	➤ As detailed in the embedded mitigations proximity agreements will be developed and agreed between parties to safeguard the OEC and infrastructure/activities associated with the Project Saoirse array within the OECC.		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM92	18.6.3.2 Obstruction to cable installations	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ The crossing of the IRIS cable will be facilitated and informed by a pre-established proximity and crossing agreements. The crossing agreement will be informed by engagement with Farice and will be agreed prior to the commencement of any construction works. 		
MM93	18.6.3.3 Obstruction to marine recreational users	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ Mitigation by consultation: Marine recreational users will be informed in advance of any routine maintenance or ad-hoc repair works required for the Offshore Site prior to the commencement of any works. Throughout the operation and maintenance phase of the Offshore Site, ongoing engagement will be undertaken with key stakeholders (including scuba diving and snorkelling centres, Blue Flag beach operators and local ports and marina) to ensure that any activities associated with the operation and maintenance of the Offshore Site, including the type of maintenance vessels required, their location within the marine environment and their period of activity, is clearly conveyed prior to the commencement of any maintenance activities. All installed infrastructure within the marine environment will be detailed on nautical and admiralty charts and within relevant publications. 		
MM94	18.6.3.4.2 Potential effects from an increase in SSC and release of sediment bound contaminants and vessel pollution	EIAR Chapter 18	<ul style="list-style-type: none"> ➤ Cable surveys will be conducted during the operational stage to determine if intervention is needed. These surveys will ensure that maintenance is targeted to necessary areas reducing the need for large scale works where appropriate. This will reduce disturbance of the seabed and suspended sediment generation. ➤ For vessel pollution, as detailed for the construction stage the mitigations proposed are considered sufficient to reduce the residual effects to not significant levels (see Section 8.6.2.3.4). These measures include vessels adhering to MARPOL and BWM conventions during the operations and maintenance phase. Additionally, control measures and SOPEPs will be established and adhered to, as required under MARPOL Annex I. Furthermore, the Project will adhere to the OEMP which includes a MPCP and an INNS management plan in order to reduce the likelihood of pollution 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>events and to ensure procedures are in place to safeguard biosecurity. An emergency response procedure will also be in place for the Offshore Site, should an emergent situation occur, including any large-scale pollution incidents.</p> <p>➤ Additionally, the WTG including the nacelle, tower, and rotor and OSS structures are designed to contain any potential leaks. The containment design of the WTG / OSS sections will therefore significantly reduce the risk of potential spills contaminating the marine environment. Additionally, for the planned oil transfers the transfer of potential pollutants to WTG's/OSS will be meticulously planned and will follow all relevant guidelines as stated by the MPCP. Pre-construction benthic survey and habitat mapping has been undertaken to inform habitat distribution and identify potential spawning or nursery habitats.</p>		
ELAR Chapter 19: Offshore Air Quality and Airborne Noise					
Pre-construction Phase					
MM95	Mitigation by Design	ELAR Chapter 19	<p>➤ Implementation and compliance with the measures outlined in the Offshore Environmental Management Plan (OEMP): Implement the OEMP which includes measures for pollution prevention and the control of noise and vibration during construction. With respect to airborne noise and air quality, this includes advisory speed restrictions on vessels operating within the Offshore Site.</p> <p>➤ Compliance with the Sea Pollution (Prevention of Air Pollution from Ships) Regulations 2010 as amended: The regulations implement the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI in Ireland and establish controls on marine engines and marine fuel to limit emissions, in particular NO_x and SO_x. All vessels associated with the Offshore Site will require the appropriate International Air Pollution Prevention Certification (IAPP) to be in place.</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<p>➤ Compliance with the VMP: the VMP describes the mitigation measures to be adopted by the Project throughout the construction, operation and maintenance and decommissioning phases of the Project.</p>		
Construction Phase					
MM96	19.8.1.1 Impacts to Mace Head Atmospheric Research Station	EIAR Chapter 19	<p>➤ Following extensive consultation with NUIG, the research institution operating the Mace Head Atmospheric Monitoring Station, as a means of mitigating the potential effects of the construction and operation of Sceirde Rocks Offshore Wind Farm, Fuinneamh Sceirde Teoranta will provide for the relocation of relevant measurement equipment to a location which will not be affected by the presence of the Offshore Site. This will require a period of dual monitoring between the existing and new monitoring locations, to ensure continuity in the atmospheric measurement records. There is an agreement in place between the Applicant and the University to ensure continuity of the excellent research associated with this institution and its contribution to global knowledge of atmospheric conditions and climate trends. This collaborative approach will effectively mitigate the effect in the long term.</p>		
MM97	19.8.1.2 Airborne noise and vibration generated from construction vessel movements and Project construction activities	EIAR Chapter 19	<p>➤ Vessels operating within the Offshore Site will do so in adherence with the VMP which describes measures to restrict speed to <6 knots. These speed restrictions will reduce the level of noise associated with vessel operations.</p>		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM98	19.8.1.3 Exhaust emissions from Offshore Site vessels	EIAR Chapter 19	<p>➤ Support and installation vessels operating during the construction phase will operate in accordance with maritime best practice and conventions including the MARPOL convention. Adherence to these conventions, as described in detail within the VMP seek to minimise the likelihood that vessel operations result in pollution events to the marine environment.</p>		
Operational Phase					
MM99	19.8.2.1 Impacts to Mace Head Atmospheric Research Station	EIAR Chapter 19	<p>➤ Increased emissions from the presence of vessels associated with the operational phase: Following extensive consultation with NUIG, the research institution operating the Mace Head Atmospheric Monitoring Station, as a means of mitigating the potential effects of the construction and operation of Sceirde Rocks Offshore Wind Farm, Fuinneamh Sceirde Teoranta will provide for the relocation of relevant measurement equipment to a location which will not be affected by the presence of the Offshore Site. This will require a period of dual monitoring between the existing and new monitoring locations, to ensure continuity in the atmospheric measurement records. There is an agreement in place between the Applicant and the University to ensure continuity of the excellent research associated with this institution and its contribution to global knowledge of atmospheric conditions and climate trends. This collaborative approach will effectively mitigate the effect in the long term.</p> <p>➤ Disruption of meteorological conditions from the presence of WTGs: Following extensive consultation with NUIG, the research institution operating the Mace Head Atmospheric Monitoring Station, as a means of mitigating the potential effects of the construction and operation of Sceirde Rocks Offshore Wind farm, Fuinneamh Sceirde Teoranta will support the relocation of some of the measurement equipment to a location which will not be affected by the presence of the Offshore Site. This will require a period of dual monitoring between the existing and new monitoring locations, to ensure continuity in the atmospheric measurement records. There is an</p>		



Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			agreement in place between the Applicant and the University to ensure continuity of the excellent research associated with this institution and its contribution to global knowledge of atmospheric conditions and climate trends. This collaborative approach will effectively mitigate the effect in the long-term residual effects following mitigation.		
EIAR Chapter 30: Climate					
Pre-construction Phase					
MM18	Mitigation by design	EIAR Chapter 30	➤ The WTGs will contain an anemometer to monitor wind speed and direction which will trigger the WTG to shut-down when a pre-determined shut-down / cut-out speed is reached. The shut-down / cut-out speed is typically designed to be lower than what the WTG can withstand to reduce any potential for damage.		
MM19	Mitigation by design	EIAR Chapter 30	➤ All infrastructure will be designed in accordance with industry standards and design codes to account for future climate projections (including extreme weather events). The final design will be subject to third-party verification, where applicable.		
MM20	30.5.1.2.2 Mitigation by design	EIAR Chapter 30	➤ Use of trenchless technology will reduce the potential for cable exposure at the Landfall.		
MM21	Mitigation by design	EIAR Chapter 30	➤ All offshore personnel will follow safety standards and codes of practice and undergo health and safety awareness and training, in line with risk assessment protocols.		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
MM22	Mitigation by design	EIAR Chapter 30	<ul style="list-style-type: none"> > The FRA (provided as Appendix 23-1 to EIAR Chapter 23 Water) identified the flooding risk associated with the Onshore Site based on flood modelling for 2 no. potential future climate change scenarios, with the Mid-Range and High-End Future Scenario flood extents generated using an increase in rainfall of 20% and 30% respectively. > Due to the nature of the underground cabling, flooding will have no effect during the operational phase of the Project. During the construction phase, works in these areas may have to be postponed following heavy rainfall events, or in the occurrence of high spring tides, which may cause flooding at these locations – the risk of which is classified as Low. > All onshore personnel will follow safety standards and codes of practice and undergo health and safety awareness and training, in line with risk assessment protocols. 		
Construction Phase					
MM23	30.6.2.1.2 Greenhouse gas emissions arising from project infrastructure during the Construction Phase	EIAR Chapter 7	<ul style="list-style-type: none"> > Construction staff will be trained how to inspect and maintain construction vehicles and plant to ensure good operational order while onsite, thereby minimising any emissions that arise. The Site Supervisor/Construction Manager will produce and follow a site inspection and machinery checklist which will be followed and updated if/when required. > All plant and vehicles (terrestrial and marine) shall be stored in dedicated areas. Machinery will be switched off when not in use. > Where reasonably practicable, the majority of aggregate materials for the construction of the Onshore Site will be obtained locally. This will significantly reduce the number of delivery vehicles accessing the site, thereby reducing the amount of emissions associated with vehicle movements. > Where applicable, low carbon intensive construction materials will be sourced and utilised onsite. 		
Operational Phase					
MM26	30.6.3.1.2	EIAR Chapter 30	<ul style="list-style-type: none"> > Ensure that all maintenance and monitoring vehicles (terrestrial) will be maintained in good operational order while onsite, and, when stationary, be required to turn off engines thereby minimising any emissions that arise. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
	Greenhouse gas emissions arising during the Operational Phase.		<ul style="list-style-type: none"> Ensure that all maintenance and monitoring vehicles (marine) will be maintained in good operational order while onsite, and, when stationary, adjust the idling rate to minimise fuel usage, thereby minimising any emissions that arise. 		
Decommissioning Phase					
MM27	30.6.4 Change to seabed levels due to decommissioning	EIAR Chapter 7	<ul style="list-style-type: none"> A Rehabilitation Plan has been prepared for the Project (Appendix 5-18) and will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and any proposed changes will be agreed with the competent authority at that time. 		
EIAR Chapter 31: Major Accidents and Natural Disasters					
Construction, Operational and Decommissioning Phase					
MM28	31.4.1.6 Severe weather during Construction and Decommissioning.	EIAR Chapter 31, 30	<ul style="list-style-type: none"> All construction and decommissioning works will take place in appropriate weather conditions and will be informed by weather and tidal information including current and predicted weather; The mitigation and adaptation required and the mitigation by design measures outlined in EIAR Chapter 30 to protect environmental receptors as well as the procedures and measures described in the Offshore Environmental Management Plan (OEMP) and its associated appendices, will ensure that the risk from these sources is maintained as low. 		
MM29	31.4.1.7 Fire/Explosion during Construction.	EIAR Chapter 31	<ul style="list-style-type: none"> The Project will be subject to a fire safety risk assessment in accordance with EIAR Chapter 19 of the Safety, Health and Welfare at Work Acts 2005 to 2014, which will assist in the identification of any major risks of fire on site, and mitigation of the same during operation. 		

Ref. No.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			<ul style="list-style-type: none"> ➤ In the event of interaction between the Offshore Site and a UXO, the procedure to be followed is outlined in EIAR Chapter 5: Description of the Project, and Appendix 5-4 Emergency Response and Coordination Plan. ➤ The OEMP and associated appendices will be reviewed and updated prior to the commencement of any works. These documents will be live and are to be maintained by the contractor to ensure that any potential risks of major accident and/or disaster are identified, avoided and mitigated, as necessary. 		
MX1	Monitoring During Construction	EIAR Chapter 31	<ul style="list-style-type: none"> ➤ In the event that development permission application is granted for the Project, the OEMP (with various appendices) and the Onshore CEMP will be updated prior to the commencement of the development, to address the requirements of any relevant planning conditions, including any additional mitigation measures which are conditioned or required through the appointment of contractors. ➤ The OEMP and associated appendices and the Onshore CEMP will be a live document maintained by the contractor that will work to ensure that potential risks of a major accident and/or disaster are identified, avoided and mitigated, as necessary. 		
MX2	Monitoring During Operation	EIAR Chapter 31	<ul style="list-style-type: none"> ➤ The operator of the Project will continue to assess the risk of major accidents and/or disasters on site on an on-going basis during operation. ➤ The maintenance programme, record of reported incidents, as well as general site activities will be monitored on an on-going basis to ensure risk of major accidents does not increase over time. 		
MX3	Change to seabed levels due to decommissioning	EIAR Chapter 7	<ul style="list-style-type: none"> ➤ A Rehabilitation Schedule (including a Decommissioning Plan) has been prepared for the Project and will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and any proposed changes will be agreed with the competent authority at that time. 		