



gwerth mewn gwahaniaeth
delivering on distinction

Morlais Project

Document MOR/RHDHV/DOC/0073: Outline Construction Environment Management Plan

Applicant: Menter Môn Morlais Limited

Document Reference: PB5034-ES-CEMP

Document MOR/RHDHV/DOC/0073: Outline Construction Environment
Management Plan

Author: Royal HaskoningDHV



Morlais Document No.:
MOR/RHDHV/DOC/0073

Status:
Final

Version No:
F2.0

Date:
July 2019

© 2019 Menter Môn

This document is issued and controlled by:

Morlais, Menter Môn. Registered Address: Llangefni Town Hall, Anglesey, Wales, LL77 7LR, UK

Unauthorised copies of this document are NOT to be made

Company registration No: 03160233 Requests for additional copies shall be made to Morlais Project

TABLE OF CONTENTS

| | |
|--|-----|
| GLOSSARY OF ABBREVIATIONS..... | III |
| 1. INTRODUCTION..... | 1 |
| 1.1. BACKGROUND..... | 1 |
| 1.2. PURPOSE OF THIS DOCUMENT..... | 1 |
| 2. SCOPE..... | 2 |
| 3. PROJECT DESCRIPTION AND WORKS SUMMARY..... | 3 |
| 4. ENVIRONMENTAL MANAGEMENT STRUCTURES AND RESPONSIBILITIES..... | 3 |
| 5. ASSOCIATED DOCUMENTATION..... | 4 |
| 6. MANAGEMENT OF KEY ENVIRONMENTAL ISSUES..... | 5 |
| 6.1. METOCEAN CONDITIONS AND COASTAL PROCESSES..... | 5 |
| 6.2. ECOLOGY..... | 6 |
| 6.3. MARINE ARCHAEOLOGY..... | 7 |
| 6.4. DROPPED OBJECTS IN THE MARINE ENVIRONMENT..... | 8 |
| 6.5. MARINE WATER AND SEDIMENT QUALITY..... | 8 |
| 6.6. WASTE MANAGEMENT..... | 10 |
| 6.7. MOD LIAISON..... | 10 |
| 6.8. COMMERCIAL FISHERIES AND FISHERIES LIAISON..... | 10 |
| 6.9. AIR QUALITY..... | 10 |
| 6.10. METHOD STATEMENTS AND RISK ASSESSMENTS..... | 11 |
| 7. ENVIRONMENTAL INCIDENT RESPONSE AND CONTINGENCY..... | 11 |
| 7.1. EMERGENCY RESPONSE PLAN..... | 11 |
| 7.2. REPORTING..... | 11 |
| 7.3. LESSONS LEARNED / INCIDENT FOLLOW-UP..... | 12 |
| 8. MONITORING AND VESSEL INSPECTIONS..... | 12 |
| 8.1. ENVIRONMENTAL AUDITS..... | 12 |
| 8.2. VESSEL INSPECTIONS AND AUDITS..... | 12 |
| 8.3. ENVIRONMENTAL MONITORING AND MITIGATION..... | 12 |
| 9. LEGISLATIVE AND REGULATORY COMPLIANCE..... | 12 |
| 9.1. TRANSPORT AND WORKS ACT ORDER AND MARINE LICENCE CONDITIONS.. | 12 |
| 9.2. LEGAL REGISTER..... | 13 |
| 9.3. REGULATORY REFERENCE MATERIAL..... | 13 |
| 9.4. TOOL BOX TALKS..... | 13 |
| 9.5. EMERGENCY RESPONSE..... | 14 |



| | | |
|-------|-----------------------------------|----|
| 10. | COMMUNICATION AND REPORTING | 14 |
| 10.1. | COMMUNITY COMPLAINTS..... | 14 |
| 10.2. | FISHERIES LIAISON | 14 |
| 10.3. | STAKEHOLDERS | 14 |
| 10.4. | SUB-CONTRACTOR MANAGEMENT..... | 14 |

GLOSSARY OF ABBREVIATIONS

| | |
|--------|---|
| ADCP | Acoustic Doppler Current Profiler |
| AEZ | Archaeological Exclusion Zone |
| AWS | Ancient Woodland Site |
| CEMP | Construction Environmental Management Plan |
| CMS | Construction Method Statement |
| ECC | Export Cable Corridor |
| ECoW | Environmental Clerk of Works |
| ERCoP | Emergency Response Cooperation Plan |
| EMMP | Environmental Monitoring and Mitigation Plan |
| EMS | Environmental Management System |
| EPS | European Protected Species |
| ERP | Emergency Response Plan |
| ES | Environmental Statement |
| FLCP | Fisheries Liaison and Co-existence Plan |
| FLO | Fisheries Liaison Officer |
| GBS | Gravity Based System |
| HDD | Horizontal Directional Drilling |
| HSE | Health, Safety and Environment |
| IAPP | International Air Pollution Prevention Certificate |
| IAQM | Institute of Air Quality Management |
| IEMA | Institute of Environmental Management and Assessment |
| IMCA | International Marine Contractors Association |
| IMO | International Maritime Organisation |
| IOPP | International Oil Pollution Prevention Certificate |
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| MCA | Maritime and Coastguard Agency |
| MDZ | Morlais Demonstration Zone |
| MGN | Marine Guidance Notice |
| ML | Marine Licence |
| MMMP | Marine Mammal Mitigation Protocol |
| MMO | Marine Mammal Observer |
| MPCP | Marine Pollution Contingency Plan |
| NRA | Navigational Risk Assessment |
| NRW | Natural Resources Wales |
| NSR | Noise Sensitive Receptor |
| NtM | Notice to Mariners |
| OCoCP | Outline Code of Construction Practice |
| ODA | Onshore Development Area |
| OWF | Offshore Wind Farm |
| PAD | Procedure for Archaeological Investigation |



| | |
|-------|---|
| PC | Principal Contractor |
| SECA | Sulphur Emission Control Area |
| SOPEP | Shipboard Oil Pollution Emergency Plans |
| TEC | Tidal Energy Converter |
| TWAO | Transport and Works Act Order |
| WSI | Written Scheme of Investigation |

1. INTRODUCTION

1.1. BACKGROUND

1. Menter Môn Morlais Limited ('the applicant', hereafter referred to as Menter Môn) is seeking a Transport and Works Act Order (TWAO) and Marine Licence (ML) for the Morlais Project (hereafter referred to as the Project).
2. Menter Môn recognises that the provision of an outline Construction and Environment Management Plan (CEMP), as part of the Environmental Statement (ES) submission, adds value to the ES and demonstrates consideration of the links between the findings of the ES, works anticipated to be required to construct and operate the Project and potential consent conditions.
3. This document seeks to set out a framework for a CEMP for the Project, including the controls proposed to manage the environmental risks associated with construction works.
4. Construction of the Project is anticipated to begin between 2021 for onshore works and 2023 for offshore works.
5. Construction and repowering works are anticipated to continue throughout the life of the Project.
6. The Project is described in the Project Description chapter of the ES (**Chapter 4, Project Description**). In summary, the Project consists of three distinct areas within which components of the Project will be installed, as follows:
 - The Morlais Development Zone (MDZ), within which arrays of tidal devices and associated infrastructure such as foundations, array hubs, inter array cables, cable protection and other associated infrastructure will be deployed.
 - The Export Cable Corridor (ECC), within which up to nine export cables and associated cable protection will be laid. The ECC also includes the intertidal area, where the export cables will make landfall via either horizontal directional drilling (HDD) or trenching.
 - The Onshore Development Area (ODA) shares the export cable landfall with the ECC, with export cables then passing to a landfall substation, and from there via an onshore cable route to a grid substation and connection to grid.
7. The Project will install tidal devices in phases up to a potential maximum installed capacity of 240 MW.

1.2. PURPOSE OF THIS DOCUMENT

8. There are several potential environmental sensitivities associated with an offshore renewable energy development which need to be identified and considered before construction and operation of such a project can take place. These sensitivities and potential impacts are detailed within the ES, including embedded mitigation and good practice that will be required during construction.

9. This outline CEMP is provided in support of the TWAO and ML applications for the Project. This outline CEMP is designed to demonstrate the linkages between impact assessment for offshore components of the Project and anticipated consent conditions. A more detailed CEMP will be prepared pre-construction and will set out controls and processes to mitigate environmental impacts throughout the construction phase of the Project and measures set out to comply with consent conditions. The CEMP is considered to be an iterative, live document that develops and evolves throughout the construction phase.
10. Contractors will be responsible for the construction and installation of the offshore infrastructure associated with the Project. Some elements of the Project's offshore infrastructure works may be undertaken by the Applicant, while array deployment will be the responsibility of the tenants developing arrays of tidal devices within the MDZ. The Project CEMP will be a live document and it will be the responsibility of the following:
 - Principal Contractors appointed by the Applicant (for project infrastructure construction); and
 - Principal Contractors appointed by Tenants of the Project for construction of their tidal device arrays.
11. Principal Contractors will provide works specific CEMP documents, which will be appended to the outline CEMP as it evolves post consent. The Principal Contractors used by both the Applicant and the Tenants will have internal management system requirements and their own CEMP templates, so the detailed CEMPs appended may vary from what is set out here.
12. An outline Code of Construction Practice (OCoCP) is also provided for onshore construction works.
13. The main purpose of this outline CEMP is to establish the structure and framework for the final CEMP, including controls proposed to manage environmental risks associated with the construction of the Project.

2. SCOPE

14. The final CEMP will be developed with reference to the Institute of Environmental Management and Assessment (IEMA) Practitioner "Environmental Management Plans", Best Practice Series, Volume 12, December 2008.
15. Menter Môn is committed to the safeguarding of the environment during construction, operation and repowering through the identification, avoidance and mitigation of potential negative environmental impacts associated with the construction, operation and repowering of the Project.
16. Consent conditions applied under the TWAO and ML will determine the scope of the final CEMP, which will be agreed prior to commencement of construction.
17. The following contents are anticipated, based on experience drawn from other offshore renewable energy projects and the findings of the ES:

- Description of project elements that are subject of the CEMP;
- Environmental management structure and responsibilities within Applicant and construction contractor organisations;
- Associated documentation;
- Management of key environmental issues;
- Monitoring and vessel inspections;
- Legislative and regulatory compliance;
- Marine Pollution Contingency Plan (MPCP): to address risks, detail methods to be used and procedures to be followed in the event of spills and / or collision incidents during construction;
- Waste management and disposal arrangements;
- Chemical risk assessment: details what chemicals may be used, methods for use, arrangements for storage and transport, and management of spillage;
- Arrangement for fisheries management and liaison during construction and arrangement for co-existence where appropriate;
- Training and awareness;
- Communication and reporting;
- Subcontractor management; and
- Sustainable construction.

3. PROJECT DESCRIPTION AND WORKS SUMMARY

18. Chapter 4 of the ES outlines the project description based on a design envelope (**Chapter 4, Project Description**).
19. This section would set out information with regards to the detailed (final) design and the associated environmental sensitivities of each project element, for example, tidal array deployment or description of cable laying works.
20. The CEMP will be a live document, evolving and updating throughout the project construction phase, with input from appropriate contractors, as the nature of works change over time. For example, initially the CEMP may consider cable installation and cable protection, with later versions considering tidal device and array infrastructure installation.

4. ENVIRONMENTAL MANAGEMENT STRUCTURES AND RESPONSIBILITIES

4.1.1. Responsibilities and Ownership

21. The Principal Contractor (PC) will have responsibility for ensuring implementation of the CEMP and associated environmental documentation.
22. Environmental management roles and responsibilities for the Project will be documented. This section of the final CEMP will set out the environmental responsibilities for the Project, including identification of key site staff, their environmental management responsibilities and how these link with other members of the Project Team. Staff members may include:
 - Project Manager;
 - Project Health Safety and Environmental Manager(s);
 - Environmental Clerk of Works (ECoW);
 - Technical advisors as required to meet consent conditions (for example, a Fisheries Liaison Officer (FLO) and Marine Mammal Observers (MMOs)).
23. It is expected that the Project and tenants of the Project will employ Principal Contractors (PC) for their respective elements of construction, who will be responsible for environmental management on site, including the preparation of environmental documents.
24. The PC will have ultimate responsibility for ensuring the implementation of the CEMP.
25. An ECoW will be appointed by the Applicant and provide quality assurance and approval of any version of the CEMP.

4.1.2. Organisational Chart and Communications

26. The contact details and communications procedures associated with individuals listed will be included in this section or attached as an appendix to the CEMP.
27. Procedures for interactions with stakeholders and particularly with key marine regulator Natural Resources Wales (NRW) would also be covered in this section, with procedures for contact and reporting.
28. An organisational chart depicting the environmental management arrangements, including key interfaces, lines of communication and responsibilities, and provision of mitigating actions will be used to illustrate the project environmental management structure.

5. ASSOCIATED DOCUMENTATION

29. The PC will compile guidance and project / site specific documentation that plays a role in the development and operation of the CEMP. For example:
 - Contract requirements (such as environmental standards);
 - Contractor's Environmental Management System (EMS) requirements;
 - Project Emergency Response Plan (ERP);
 - Project Health and Safety Plan;

- Project Environmental Statement;
- Consent conditions under TWAO and ML;
- Risk registers; and
- Legal registers.

6. MANAGEMENT OF KEY ENVIRONMENTAL ISSUES

30. This section will set out controls and procedures to mitigate environmental impacts associated with the Project, as directed by consent conditions.
31. The management of issues associated with the following topics is anticipated based on mitigation measures identified during development of the ES:
- Metocean conditions and coastal processes;
 - Marine ecology;
 - Archaeology and cultural heritage;
 - Dropped objects in the marine environment;
 - Wastewater discharges;
 - Oil, fuel and chemicals;
 - Waste management;
 - Fisheries liaison;
 - Emissions to air; and
 - Method statements and risk assessments.

32. A brief overview of key issues for each item is provided below. However, the list of issues is not exhaustive and will be specific to the final design and consent conditions associated with the Project.

33. An outline Environmental Monitoring and Mitigation Plan (EMMP) is provided separately to support the outcomes of ES Chapters **11, Marine Ornithology** and **12, Marine Mammals**.

6.1. METOCEAN CONDITIONS AND COASTAL PROCESSES

34. A number of characteristics of the project design envelope will act as embedded mitigation for potential impacts upon this this receptor, including:
- Spacing of tidal devices in arrays to minimise energy losses across arrays, will also minimise impacts on baseline current regime; and

- An anticipated preference by tenants of the Project for placement of their arrays of tidal devices in the areas of strongest tidal flow, with energy extracted being a smaller portion of the resource there than elsewhere in the MDZ.

35. The Project and its tenants will undertake collection of Acoustic Doppler Current Profiler (ADCP) data across the MDZ as required, to inform the design of arrays and confirm impact assessment assumptions regarding limited impacts upon this receptor.

6.2. ECOLOGY

6.2.1. Benthic Ecology

36. Chapter 9 of the ES assesses potential impacts on Benthic and Intertidal Ecology (**Chapter 9, Benthic and Intertidal Ecology**).

37. Preconstruction surveys may be undertaken in advance of cable laying and other seabed works such as foundation installation to ensure sensitive habitats are avoided. If required, the methods for pre-construction surveys will be agreed with NRW.

38. The seabed across much of the MDZ is rock, where burial will not be possible. Armoured cables will be used, and cable protection will be deployed only when required to secure the position of cables on the seabed. In limited areas of sediment, burial may be possible, but is not assumed.

39. Where the location of sensitive seabed habitats and species is indicated, then micro-siting of seabed infrastructure (cables, cable protection, foundations / anchors and catenary) may be undertaken, this will be based on pre-construction surveys, and will aim to avoid those habitats.

40. The biosecurity risk associated with the spreading of non-native invasive species during the construction and operation of the Project will be mitigated through use of best-practice techniques, including appropriate vessel maintenance following guidance from the International Convention for the Prevention of Pollution from Ships (MARPOL). An outline Invasive Species Management Plan is also provided separately (**Document MOR/RHDHV/DOC/0075**).

41. Potential impacts associated with marine pollution are discussed in **Section 6.5**, below.

6.2.2. Marine Mammals

42. Chapter 12 of the ES assesses potential impacts on Marine Mammals (**Chapter 12, Marine Mammals**).

43. For the construction and decommissioning phases, the potential impacts on mammals are noise, vibration and disturbance impacts.

44. No percussive piling is proposed for the Project, as the seabed across the MDZ is mostly bedrock, with no areas with sufficient depth of sediment to allow percussive piling of foundations. All foundations will either be gravity-based structures (GBS) placed onto the seabed, or will be screw piles or drilled sockets, with piles inserted and grouted in place.

45. A construction method statement (CMS) will be prepared by the PC for the installation of any drilled foundations into bedrock. This will include details of slow or soft start procedures for the drilling works.
46. The construction method statement will be supported by agreement of a Marine Mammal Mitigation Protocol (MMMP). The MMMPs will be agreed with NRW up to six months prior to installation of:
 - Foundation installation;
 - Cable and cable protection installation.
47. It is anticipated that a risk assessment for European Protected Species (EPS) (cetaceans) will be required to be completed within the full CEMP for defined construction, operation and repowering works, each of which would be supported with an EPS risk assessment application.

6.2.3. Fish and Shellfish Ecology

48. Chapter 10 of the ES assesses potential impacts on Fish and Shellfish Ecology (**Chapter 10, Fish and Shellfish Ecology**). All potential impacts associated with fish and shell fish ecology are assessed as of minor adverse significance.

6.2.4. Ornithology (Seabirds)

49. Chapter 11 of the ES assesses potential impacts on Marine Ornithology (**Chapter 11, Marine Ornithology**).
50. The key impact associated with works is the potential for vessel works to disturb breeding seabird colonies on sea cliffs at Abraham's Bosom, South Stack, and Gogarth.
51. All vessel activities within 300 m of seabird colonies during will be prohibited during the breeding season, unless otherwise advised by the ECoW.
52. The restriction will be in place as follows:
 - March to July for Abraham's Bosom;
 - February to August for South Stack; and
 - February to August for Gogarth.

6.3. MARINE ARCHAEOLOGY

53. Chapter 13 of the ES identifies locations and wrecks of potential archaeological importance (**Chapter 13, Offshore Archaeology and Cultural Heritage**).
54. The requirement for the following tools for mitigation of potential impacts is identified, and their inclusion as standard consent conditions is anticipated:
 - Archaeological Exclusion Zones (AEZ);
 - Written Scheme of Investigation (WSI); and

- Procedure for Archaeological Investigation (PAD).

55. The final CEMP will tabulate all AEZ agreed with regulators;
56. The final CEMP will append WSI and PAD to inform work undertaken;
57. The PC will ensure that management of AEZ and adherence to WSI and PAD form part of their method statements;
58. PAD will be included within toolbox talks.

6.4. DROPPED OBJECTS IN THE MARINE ENVIRONMENT

59. A consent condition for the management of dropped objects in the marine environment is anticipated.
60. It is normal practice for a requirement that such objects are reported as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, NRW may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and may require obstructions to be removed from the seabed at the undertaker's expense, also if reasonable to do so.
61. The PC will ensure that a procedure is provided in the final CEMP that details detail the proposed method for recovery for both floating and non-floating objects and the reporting and documenting of the incident to the designated members of the Project Team and the regulator. The procedure will be reviewed by the designated members of the Project Team prior to the contractor commencing work.

6.5. MARINE WATER AND SEDIMENT QUALITY

62. Chapter 8 of the ES assesses potential impacts on Marine Water and Sediment Quality (**Chapter 8, Marine Water and Sediment Quality**).

6.5.1. Wastewater Discharges

63. Controls for any waste water discharges (such as effluent discharges, ballast waters, bilge waters, and deck runoff) will be included in the final CEMP, in accordance with latest legislation, regulatory limits and good practice at the time of writing.
64. Monitoring records in relation with the disposal of foul water, bilge water or ballast water during the construction phase must be retained.

6.5.2. Oils Fuels and Chemicals

65. It is the responsibility of the PC to have in place adequate controls for the delivery, storage and use of fuels, oils and chemicals on vessels and other materials as required. This includes checks that chemicals to be used offshore comply with the relevant regulations. The following control measures are anticipated as consent conditions and would be applied where possible:

- Oils and lubricants used in the tidal devices will be biodegradable where possible and all chemicals would be certified to the relevant standard;
 - Where grout is required, careful use would be ensured at all times to avoid excess grout being discharged to the environment;
 - All tidal devices will incorporate appropriate provisions to retain spilled fluids within their structure, normally the nacelle of the tidal energy converter (TEC). In addition, offshore electrical infrastructure such as hubs will be designed with a self-contained bund to contain any spills and prevent discharges to the environment;
 - Best practice procedures would be put in place when transferring oil or fuel offshore;
 - Appropriate spill plan procedures will be implemented in order to appropriately manage any unexpected discharge into the marine environment, these would be included in a MPCP to be agreed post-consent.
66. Within the CEMP, each PC will consider the delivery, storage and handling of hazardous materials and in particular oils and fuels taking into account the legal requirements and good practice guidelines.
67. Oils and chemicals will be clearly labelled, and each contractor should retain an up-to-date hazardous substance register. Activities involving the handling of large quantities of hazardous materials, such as deliveries and refuelling, should have detailed method statements in place and be undertaken by designated and trained personnel.
68. Oil and fuel storage tanks will be robust and provide adequate secondary containment and be located in designated areas taking into account security, the location of sensitive receptors and pathways, and safe access and egress for plant and manual handling.
69. The PCs will demonstrate the development of an Emergency Response Cooperation Plan (ERCoP) for the works to be undertaken. The ERCoP will be compliant with guidance set out by Maritime and Coastguard Agency (MCA) in Marine Guidance Note (MGN) 371, issued and approved by MCA.
70. Spill response materials will be provided nearby and be readily accessible, with local project personnel trained in spill response.
71. Vessels associated with all Project operations will comply with International Maritime Organisation (IMO)/MCA codes for prevention of oil pollution and any vessels over 400 GT will have on board Shipboard Oil Pollution Emergency Plans (SOPEP);
72. Vessels of more than 400 gross tonnage will maintain an oil record book and the sulphur content of fuels must comply with MARPOL (International Convention for the Prevention of Pollution from Ships) Annex VI requirements in relation to Sulphur Emission Control Areas (SECAs) and hold a valid International Oil Pollution Prevention Certificate (IOPP).

6.6. WASTE MANAGEMENT

73. Where waste is produced, reuse, recycle or recovery should be considered where practical and economically feasible prior to considering disposal. Each contractor is responsible for the collection, storage and disposal of any waste produced as part of the Project.
74. Vessel operators are required to liaise with port operators to facilitate appropriate storage, transfer, segregation and disposal of waste.

6.7. MOD LIAISON

75. The Applicant will inform MOD of all works planned and their timetabling.

6.8. COMMERCIAL FISHERIES AND FISHERIES LIAISON

76. Chapter 14 of the ES assesses potential impacts on Commercial Fisheries (**Chapter 14, Commercial Fisheries**).
77. A Fisheries Liaison and Coexistence Plan (FLCP) may be required as a consent condition to ensure relevant fishing fleets are notified of commencement of licensed activities and to address the interaction of the licensed activities with fishing activities.
78. If required a FLCP would include:
- Notice to Mariners (NtMs), Kingfisher bulletins and other navigational warnings (of the position and nature of works including offshore cable corridor crossings) would be issued to the fishing community;
 - Appropriate liaison would be undertaken with all relevant fishing interests to ensure that they are informed of development planning, construction and maintenance activities and any items which may accentuate risk such as unburied cables and other infrastructure, etc.;
 - A Fisheries Liaison Officer (FLO) to be appointed over the construction and operational phase of the project, with FLOWW Guidance (2014; 2015) adhered to; and
 - Information on the location of areas of cable protection to be communicated to the fishing industry.

6.9. AIR QUALITY

79. Chapter 22 of the ES assesses potential impacts on Air Quality (**Chapter 22, Air Quality**).
80. Vessel emissions associated with the Project will comply with MARPOL Annex VI requirements in relation to ozone depleting substances regulations, nitrogen oxide, sulphur oxide and particulate and volatile organic compounds. Where relevant, vessels will have a valid International Air Pollution Prevention (IAPP) certificate.

6.10. METHOD STATEMENTS AND RISK ASSESSMENTS

81. It is the responsibility of the contractors to have in place approved method statements and risk assessments for works being carried out on-site. Where relevant, the method statement should cross reference applicable environmental risk assessments.
82. The risk assessments should identify environmental hazards and outline subsequent control measures. Control measures should be developed, implemented and monitored to ensure that any impact on the environment is avoided or minimised. Approval for these method statements with the relevant authorities may be required.
83. Key personnel involved in the work activities should be given a method statement briefing by the Contractor, in the form of a tool box talk. The tool box talk should outline the risks involved and the control measures that personnel are expected to comply with. It is expected that individuals sign a method statement attendance briefing record sheet, acknowledging receipt of the information; these records should be maintained by the Contractor. Tool box talks should also be used to inform contractors of other environmental sensitivities as appropriate.

7. ENVIRONMENTAL INCIDENT RESPONSE AND CONTINGENCY

84. Any environmental incidents (including dropped objects into the marine environment) will be reported and managed correctly to allow their impact to be reduced to a minimum and to decrease the risk of the incident re-occurring.

7.1. EMERGENCY RESPONSE PLAN

85. It is anticipated that contractors will be required as a consent condition to have an Emergency Response Co-operation Plan (ERCoP).
86. The plan will include a response flow chart and detail how to report and respond to an environmental incident, including the measures available to contain/clean up an incident, manage dropped objects in the marine environment and offsite emergency response resources.
87. For offshore activities, a Marine Pollution Contingency Plan (MPCP) will also be developed for the Project.
88. Vessels working on behalf of the Project will require to have a SOPEP in accordance with IMO) and MCA guidelines or an Oil Pollution Plan if under 400 GT.

7.2. REPORTING

89. All environmental incidents (including dropped objects into the marine environment) and near misses will be reported, investigated and recorded to the designated members of the Project Team.
90. Contractors will produce monthly reports for the designated members of the Project Team to record health, safety and environmental performance.

7.3. LESSONS LEARNED / INCIDENT FOLLOW-UP

91. If an environmental incident should occur, it will be thoroughly investigated by the relevant contractor to establish the root cause and prevent any recurrence. Dependent on the severity of the incident, the Project Team may wish to manage or assist with the investigation process.

8. MONITORING AND VESSEL INSPECTIONS

92. A programme of performance and compliance monitoring will be established for the site and documented in the final CEMP. It will include, but not necessarily be restricted to the following items, where relevant.

8.1. ENVIRONMENTAL AUDITS

93. Environmental audits should comprise both internal (PC) audit and external audits.
94. An audit checklist will be used to ensure that a standard approach is applied consistently. Environmental audits would be carried out by experienced auditors, either from within the Project Team or via delegated specialists.

8.2. VESSEL INSPECTIONS AND AUDITS

95. Environmental vessel inspections will be based on the International Marine Contractors Association (IMCA) standards, IMCA M 189/S 004 (Marine Inspection Check List for Small Boats) or IMCA M 149 (Common Marine Inspection Document).
96. A log of all vessel audits and associated close out actions will be maintained.

8.3. ENVIRONMENTAL MONITORING AND MITIGATION

97. An outline EMMP is submitted with the TWAO and Marine Licence applications (**Document MOR/RHDHV/DOC/0072**). It is recognised that monitoring is an important element in the management of the potential Project impacts for certain receptors, in particular for seabirds and marine mammals.
98. The final requirement for appropriate design and scope of monitoring will be agreed with the Regulators and appropriate stakeholders prior to construction works commencing.

9. LEGISLATIVE AND REGULATORY COMPLIANCE

9.1. TRANSPORT AND WORKS ACT ORDER AND MARINE LICENCE CONDITIONS

99. The Project will be granted permission to be constructed under specific consents under the Transport and Works Act 1992 and the Marine and Coastal Access Act 2009. Licenses will be issued by Welsh Government / The Planning Inspectorate Wales and by NRW.
100. Specific limits for emissions to air, discharges to land and water and working (such as seasonal exclusions) will be contained within these consents/licenses and may not be breached at any time.

101. The TWAO and ML will be the key permissions to be adhered to for offshore construction and operation of the Project.
102. On behalf of the Applicant, the PC must ensure that all relevant planning conditions for the Project are complied with. Planning conditions will be reviewed by the designated members of the Project Team on a periodic basis, to ensure that the conditions are being complied with.

9.2. LEGAL REGISTER

103. The Applicant, Menter Môn, is committed to minimising the impact of its construction, operation and repowering activities on the environment by complying with all relevant environmental legislation and good practice.
104. In order to ensure that the Applicant is aware of the requirements of current environmental legislation and good practice an Environmental and Planning Legal Register will be maintained by the applicant's Project Team.
105. The Legal Register will detail relevant environmental legislation requirements for the business and will includes details of associated control measures.
106. The PC will be required to ensure that all relevant environmental legislation and good practice are complied with on site. Adequate records of environmental information and audits to demonstrate compliance with both legal and project environmental requirements will be maintained by the Contractor.

9.3. REGULATORY REFERENCE MATERIAL

107. A range of mechanisms would be used for training and raising awareness of project environmental issues; these include environmental inductions, tool box talks, environmental notice boards, and environmental bulletins and alerts.
108. All vessel personnel will be required to have a vessel induction that includes an environmental component. Designated personnel from the PC's Project Team should be responsible for preparing and delivering the site induction and maintaining documented attendee records.
109. The environmental management contents of vessel inductions will include reference to compliance with relevant planning/license conditions, environmental management contacts, site specific environmental sensitivities, waste management arrangements, hazardous material management, fuel, oil and chemical management; environmental emergency response, reporting of incidents and complaints.

9.4. TOOL BOX TALKS

110. Tool box talks are considered to be an effective method for the dissemination of information relating to work activities. Environmental tool box talks are required to be delivered by the Contractor to on-site personnel on an as required basis. Tool box talk attendance sheets are likely to be inspected as part of environmental audits.

9.5. EMERGENCY RESPONSE

111. The PC will ensure that all staff including any subcontractors are trained in the Project's environmental emergency response procedures, so that they are able and prepared to respond to an incident promptly and effectively. Environmental emergency response plans will be tested by the PC prior to work commencing.

10. COMMUNICATION AND REPORTING

112. Environmental meetings and debriefs will require to be held local to the site. Periodic health, safety and environment (HSE) meetings are required to be held on all construction and maintenance vessels and are likely to comprise representatives from the Project Team, the PC, and key sub-contractors. Minutes of meetings will be recorded and standard agenda items will include status of outstanding items, reports of environmental incidents or complaints, stakeholder engagement, tool box talks issued / delivered, and key findings of environmental inspections and audits.
113. The PC will convene regular Project Team meetings to convey environmental information to the designated members of the Project Team, including sub-contractors and to raise awareness of environmental issues.

10.1. COMMUNITY COMPLAINTS

114. Menter Môn values its relationship with the communities of Anglesey and Holy Island. All work will be carefully planned to minimise disturbance to our neighbours.
115. Contractors must ensure that any complaints are reported to designated members of the Project Team and investigated promptly.
116. The final CEMP will detail the procedure in place to report public complaints relation to offshore works.

10.2. FISHERIES LIAISON

117. As detailed in **Section 6.8**, if required a FLO will be appointed for the duration of construction works.

10.3. STAKEHOLDERS

118. The CEMP will make reference to any communication requirements with stakeholders required under consent conditions.

10.4. SUB-CONTRACTOR MANAGEMENT

119. The final CEMP will set out how the PC manages their subcontractors. This may range from the selection and assessment processes through to the assessment of performance on the vessel.
120. For example, expectations of Contractors working on behalf of the Project are primarily detailed in this and the following documents:



- Contract Schedules including specific environmental requirements;
- Environmental Policy; and
- Environmental Statement.