



BERWICK BANK WIND FARM OFFSHORE ENVIRONMENTAL IMPACT ASSESSMENT

APPENDIX 22: OUTLINE ENVIRONMENTAL MANAGEMENT PLAN

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Prepared by:	RPS
Prepared for:	SSE Renewables
Checked by:	Anja Schoene (SSER)
Accepted by:	Ross Hodson (SSER)
Approved by:	Sarah Edwards (SSER)

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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

1. This outline Environmental Management Plan (EMP) has been prepared by RPS and Berwick Bank Wind Farm Limited (BBWFL), a wholly owned subsidiary of SSE Renewables (SSER) Limited hereafter referred to as 'the Applicant', to support the Offshore Environmental Impact Assessment (EIA) Report for the Berwick Bank Wind Farm offshore infrastructure (hereafter referred to as 'the Proposed Development')
2. The purpose of this outline EMP is to serve as a consolidated document which includes the various environmental commitments during the construction and operation and maintenance phases of the Proposed Development, ensuring the efficient management and dissemination of these commitments. This outline EMP will be updated between construction and operation and maintenance and then again prior to the decommissioning phase to encompass the environmental commitments associated with each phase.
3. This outline EMP also provides a foundation for the management of the potential environmental impacts associated with the Proposed Development, providing practical guidance to those involved in the construction and operation and maintenance phases of the Proposed Development.
4. Once finalised, all the Applicant personnel and Contractors involved in the Proposed Development will be expected to comply with the EMP.
5. This outline EMP covers the activities taking place as part of the Proposed Development seaward of MHWS.
6. This outline EMP has been prepared in accordance with the following industry guidance:
 - Institute of Environmental Management and Assessment (IEMA) Guidance on Environmental Management Plans (IEMA, 2008).

1.2. AIMS AND OBJECTIVES

7. The aim of the EMP is to provide a tool to ensure all of the mitigation measures and monitoring commitments made in the Offshore EIA Report are implemented.
8. The main objectives of this document are therefore to:
 - provide information on the Proposed Development, detailing the appropriate measures for the avoidance, minimisation and control of any environmental impacts associated with the Proposed Development identified as part of the offshore EIA; and
 - provide a framework for monitoring the environment.
9. The EMP will be finalised and adopted prior to the construction phase of the Proposed Development and will also be reviewed and updated prior to being adopted for the operation and maintenance phase and similarly for the decommissioning phase.
10. During these updates, further environmental requirements and management measures to be applied during these phases will be incorporated.
11. The EMP is a key construction document and will ensure all monitoring and mitigation commitments included as part of the Offshore EIA Report, including those that are considered necessary to reduce potential impacts, are implemented. This outline EMP does not apply to the onshore infrastructure for the Project landward of MHWS. A separate EMP will be developed for these elements of the Project.

1.3. DOCUMENT STRUCTURE

12. This outline EMP is divided into three parts:
 - Part I – Management, implementation and communication. This section provides information on the management and implementation of the EMP, including roles and responsibilities, and lines of communication.
 - Part II – Environmental impacts and control measures. This section includes a register of potential environmental impacts identified within the Offshore EIA Report with associated control measures.
 - Part III – Annexes included as part of the EMP including sub-plans to the EMP and reporting proformas. These sub-plans include:
 - annex A – Marine Pollution Contingency Plan (MPCP);
 - annex B – Invasive Non-Native Species Management Plan (INNSMP);
 - annex C – Scour Protection Management Plan (SPMP); and
 - annex D – Written Scheme of Archaeological Investigation (WSI) and Protocol for Archaeological Discoveries (PAD).

1.4. OTHER RELEVANT DOCUMENTS

13. Once finalised, this EMP will form part of a suite of consent plans that will be required as a condition of the Section 36 Consent and associated Marine Licences for the Proposed Development. At this stage the list of final consent plans that will be required is not known. However, where commitments to specific consent plans have been identified as designed in mitigation within the Technical Assessments, outline versions of these plans have been provided as appendices within volume 4 of the Offshore EIA Report. These outline consent plans include:
 - Marine Mammal Mitigation Protocol (MMMP) (volume 4, appendix 23);
 - Fisheries Management and Mitigation Strategy (FMMS) (volume 4, appendix 24);
 - Navigational Safety and Vessel Management Plan (NSVMP) (volume 4, appendix 25);
 - Aid to Navigation Management Plan (ANMP) (volume 4, appendix 26); and
 - Lighting and Marking Plan (LMP) (volume 4, appendix 27).
14. In addition to the consent plans listed above the Applicant will also be required to prepare a Project Environmental Monitoring Programme (PEMP). The PEMP will set out the Applicant's commitments to monitoring the potential effects of the Proposed Development on key receptors and provide detail on how that monitoring will be delivered across all stages of the project (pre-construction, construction, post-construction and decommissioning). This plan will be developed in consultation with MS-LOT and other key stakeholders and therefore has not been included as an outline plan at this stage.
15. The Applicant will also be required to submit a Decommissioning Programme in accordance with Section 105(2) of the Energy Act 2004 Decommissioning of Offshore Installations and Decommissioning of Offshore Renewable Energy Installations in Scottish waters or in the Scottish part of the Renewable Energy Zone under The Energy Act 2004 (Scottish Government, 2022). Other consent plans likely to be required include Cable Plan(s) for inter-array, interconnector and offshore export cables, Piling Strategy, Construction Method Statement (CMS) and Construction Programme (CP), Design Specification and Layout Plan (DSLPL) and Design Statement. The majority of these plans require further detail design work to be completed prior to preparation.
16. This EMP, sub-plans and all other required consent plans will be developed once further detailed design work has been completed for the Proposed Development and post consent requirements and consent conditions are agreed. The consent plans will be prepared in consultation with key stakeholders for submission to, and approval by, MS-LOT prior to the commencement of construction.

17. The outline consent plans included in this Offshore EIA Report will be reviewed and updated as necessary throughout the development of the Proposed Development, to a schedule agreed with MS-LOT. These documents will always reflect the commitments made in the Offshore EIA Report and any associated conditions of consent or requirements agreed with the relevant authorities.

1.5. BACKGROUND AND CONSENTS

1.5.1. DESCRIPTION OF THE PROPOSED DEVELOPMENT

18. The Proposed Development is an offshore wind farm located in the outer Firth of Forth and Firth of Tay, approximately 37.8 km east of the Scottish Borders coastline (St. Abb's Head) and 47.6 km to the East Lothian coastline (see Figure 1.1).
19. The Proposed Development covers an area of approximately 1,178.1 km² comprising 1,010.2 km² for the Proposed Development array area and 167.9 km² for the Proposed Development export cable corridor. It comprises up to 307 wind turbines, up to ten Offshore Substation Platforms (OSPs)/Offshore converter station platforms and up to eight offshore export cables which extend from the Proposed Development array area to the Skateraw Landfall on the East Lothian coast, and a network of inter-array and interconnector cables.

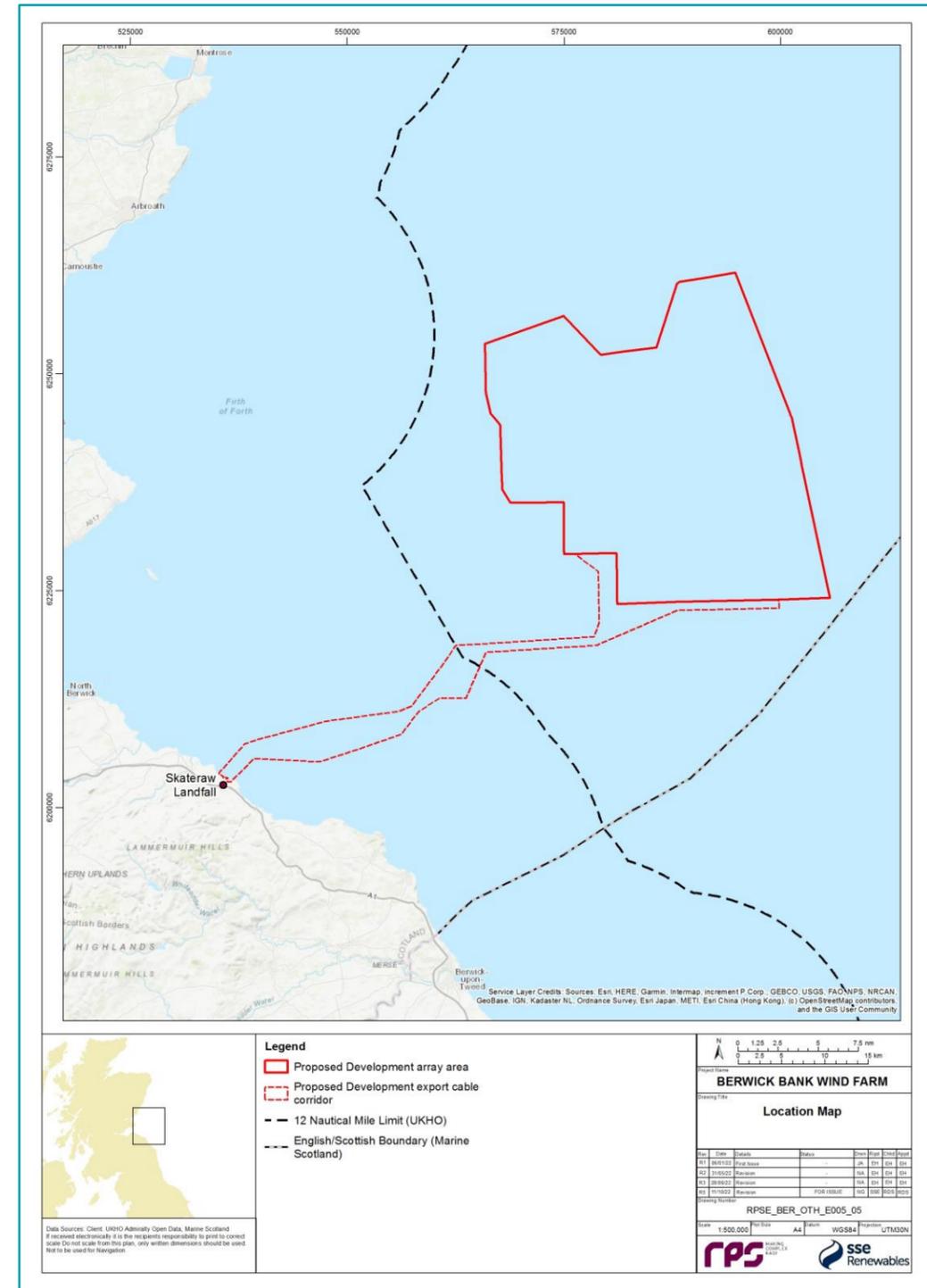


Figure 1.1: Location of the Proposed Development

1.5.2. CONSENTS

20. Table 1.1 lists the consents obtained for the Proposed Development. The information in this table will be populated once consents are received.

Table 1.1: Proposed Development Consents

Licence	Legislation	Provider	Date

21. The Applicant is submitting this EMP as part of the Offshore EIA report submission for consent and to seek approval for the commitments within this EMP prior to the commencement of construction activities. As noted in section 1.1, this EMP is a live document and will be further developed in accordance with the requirements of the relevant consent conditions and in consultation with relevant stakeholders.

2. PART I: MANAGEMENT, IMPLEMENTATION AND COMMUNICATION

2.1. ROLES AND RESPONSABILITIES

2.1.1. OVERVIEW

22. This section outlines the roles and responsibilities of all the Applicant personnel, Contractors and Subcontractors in relation to this EMP.

23. The Applicant personnel, Contractors and Subcontractors must comply with the requirements of the final EMP and all relevant associated documents. They key roles relevant to this EMP are described in sections 2.1.2 to 2.1.4.

24. The key roles with specific roles relating to the EMP are:

- the Applicant Environmental Manager;
- the Independent Environmental Clerk of Works (ECoW);
- the Applicant Stakeholder Engagement Manager (SEM);
- the Applicant Package Managers;
- the Contractors/Subcontractors Environmental Manager;
- the Contractor's Community Liaison Manager (CLM);
- Archaeological Contractor;
- Marine Mammal Observer (if required);
- Fisheries Liaison Officer (FLO);
- Offshore Fisheries Liaison Officer (OFLO) and;
- Marine Coordinator.

25. These roles will be further defined and agreed with MS-LOT prior to the commencement of construction activities.

2.1.2. THE APPLICANT: KEY MANAGEMENT ROLES RELATING TO ENVIRONMENTAL MANAGEMENT

The Applicant Environmental Manager

26. An Environmental Manager appointed by the Applicant will be in place for the construction and the operation and maintenance phases of the Proposed Development, to manage ongoing compliance with the final EMP and all supporting documents, including those listed in section 1.4. The Applicant's appointed Environmental Manager will have overall responsibility for discharging consent conditions including managing the delivery of all consent plans including this EMP. The Applicant's appointed Environmental Manager will be supported by Package Managers who will be responsible for the engineering work packages covering marine installation, wind turbines and transmission systems during construction. The Package Managers will have similar responsibilities as those of the Applicant Environmental Manager but focussed on their specific package/work streams.

27. An Environmental Manager, together with a SEM, will be appointed by the Applicant and in place throughout construction and operation and maintenance phases.

28. The key responsibilities of the Applicant Environmental Manager may include:

- monitoring compliance of all environmental responsibilities included in the EMP and supporting documents (e.g. consent management plans) are fulfilled for the construction and operation and maintenance phase of the Proposed Development;
- Appointment and management of the Independent Environmental Clerk of Work (ECoW);
- monitoring compliance of the Contractors/Subcontractors with the implementation of the EMP and its requirements;
- monitoring compliance with contractual requirements, e.g. environmental management issues are covered in project progress meetings, together with inductions and training; and that any corrective actions arising from environmental audits are addressed; and
- reporting to the Applicant Senior Management Team.

29. The list of responsibilities for the Applicant's appointed Project Manager will be further refined as part of any required updates to this EMP prior to commencement of construction.

The Independent Environmental Clerk of Works

30. The Applicant will be required to appoint an independent ECoW. The ECoW will need to be appointed pre-construction in time to review and approve the draft consent management plans prior to submission to MS-LOT for approval and will be required to remain in post throughout construction and into operation and maintenance phase of the Proposed Development.

31. The Applicant's appointed ECoW will report directly to the Applicant's appointed Environmental Manager and will work in cooperation Contractors and Subcontractors. The Applicant's ECoW will also be required to agree a communication strategy with MS-LOT. The Applicant ECoW will notify all Proposed Development staff when environmental issues arise as well as inform the regulators and their statutory stakeholders as required of any non-compliance with the EMP.

32. Key responsibilities of the Applicant ECoW are expected to include (Scottish Government, 2019):

- Quality assurance of final draft versions of all consent management plans and programmes required under the Section 36 Consent;
- Monitoring and reporting of compliance with the consent conditions and all environmental mitigation and monitoring measures included in the application for the Proposed Development;
- Provision of on-going advice and guidance to the Applicant in relation to achieving compliance with consent conditions, including but not limited to conditions relating to the implementation of consent management plans;
- Provision of reports on quality assurance and the Applicant's consent compliance to MS-LOT at timescales to be determined by MS-LOT;
- Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these;
- Monitoring that the Proposed Development is being constructed in accordance with the consent management plans and in compliance with all relevant regulations and legislation;
- supporting the promotion of a positive culture of environmental awareness throughout the construction and operation and maintenance phases of the Proposed Development, including increasing awareness of environmental considerations;
- Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to MS-LOT;
- Agreement of a communication strategy with MS-LOT.
- Ensuring that all of the ECoW environmental responsibilities included in the EMP and supporting documents are fulfilled for the construction phase and, when required, for the operation and maintenance phase of the Proposed Development;
- offering an environmental presence and undertaking on-site audits throughout the construction phase to supervise the fulfilment by the Contractor and Subcontractors of their responsibilities regarding the Offshore EIA Report, EMP and supporting environmental documentation;
- Attending project meetings and contributing on environmental matters when required; and
- Supporting the Applicant Environmental Manager in liaising with stakeholders.

The Applicant Stakeholder Engagement Manager

33. The Applicant SEM will be in position throughout the Project lifetime to facilitate engagement with the community. The Applicant SEM will cooperate with the CLM appointed by the Contractor.

2.1.3. CONTRACTORS AND SUBCONTRACTORS

34. The Contractor and all Subcontractors will be contractually required to comply with the required good environmental practice stated in the Offshore EIA Report, EMP, and associated Consent Management Plans, and ensure their works are fulfilling the stated requirements.
35. The Contractor, in liaison with the Applicant, will update the EMP as necessary during the construction phase of the Proposed Development.
36. A Contractor's Environmental Manager with relevant experience and expertise will be hired by the Contractor throughout each phase of the Proposed Development. The Contractor's Environmental Manager will verify the correct implementation on the Proposed Development of the environmental design, control and mitigation measures outlined in the Offshore EIA Report, EMP and supporting consent documentation.
37. A Contractors' CLM will liaise with the community during the construction phase of the Proposed Development.

38. All of the Applicant's Contractors and their Subcontractors will ensure that their works are in line with the requirements of the Offshore EIA Report and EMP.

39. Key responsibilities of the Contractors/Subcontractor include:

- ensuring all environmental responsibilities in relation to the Contractor/Subcontractors included in the EMP and supporting documents are fulfilled for the duration of the Proposed Development;
- ensuring adequate resources and processes are in place to ensure compliance with the EMP and manage the potential environmental impacts of their activities;
- providing RAMS addressing all environmental aspects of all planned activities prior to these works commencing. These RAMS will be approved by the Applicant and the Contractor/Subcontractor should provide RAMS for approval at least two weeks prior to commencement of works. RAMS will include proposed mitigation measures required for any work or task to be undertaken;
- implementing required environmental control measures as stated in the Offshore EIA Report, EMP and supporting environmental documentation;
- reading, understanding and complying with any consent conditions related to their activities;
- maintaining regular communication with the Applicant Environmental Manager and the Applicant ECoW, principally to report any environmental risks, incidents or queries as a priority;
- providing collated data required by the Applicant Environmental Manager collected from environmental monitoring, together with performing inspections and environmental reporting;
- ensuring sufficient training and induction of all their personnel before the start of any work on the Proposed Development;
- ensuring the competency of all staff under their supervision and that their tasks are undertaken in line with the EMP; and
- complying with relevant environmental legislation and undertake their duties in line with Proposed Development environmental policies, plans, procedures and rules for the Proposed Development.

40. This EMP will provide the minimum standards for all Contractors and Subcontractors to comply with. Any additional control measure identified during the review of their activities needs to be specified in Contractor/Subcontractor RAMS.

Contractor's Environmental Manager

41. The Contractor's Environmental Manager will be a full-time position from the start of the Proposed Development contract to ensure compliant implementation of site activities. The Contractor's Environmental Manager requires a minimum of five years of relevant site experience.

42. The key responsibilities of the Contractor's Environmental Manager include:

- ensuring all environmental responsibilities relating to the Contractor's Environmental Manager, including those in the EMP and supporting documents are fulfilled for the duration of the relevant phases of the Proposed Development;
- ensuring that sufficient resources and process are available to deliver/comply with the EMP and to manage potential environmental impacts;
- reviewing and regularly refining the EMP and supporting environmental documentation during the construction phase of the Proposed Development while ensuring consistency of these documents with the Offshore EIA Report. This will include incorporation of any environmental requirements introduced through the consents process. Any revisions to the EMP or supporting environmental documentation require approval by the Applicant Environmental Manager;
- undertaking environmental audits, inspections and reporting to ensure the construction activities adhere to the Offshore EIA Report, EMP and any supporting environmental documentation;

- collating and conducting an environmental monitoring programme and collating relevant environmental reports and records. All reports, records and monitoring programme require the approval of the Applicant Environmental Manager;
- promoting a positive environmental culture via training and engagement with site management and site operatives, and promoting increased environmental awareness;
- ensuring timeous remediation/reporting relating to any environmental incidents/non-compliance;
- communicating statutory requirements and good environmental practices stated in the EMP by planning toolbox talks. These should be based on-site activities and updated to reflect any reports of non-compliance. These responsibilities should be communicated to all relevant Contractors/Subcontractors outlined in this EMP;
- supervising and monitoring the implementation of, and ongoing compliance with the EMP;
- advising Contractors and Subcontractors on compliance with the EMP; and
- introducing site staff to the environmental policy, procedures and requirements of the EMP.

Contractor's Community Liaison Manager

43. The CLM will be named by the Contractor and keys responsibilities include:
- informing inhabitants in proximity to the works area of the start of particular work activities in their area;
 - maintaining regular communication with neighbouring residents, particularly regarding progress and issues that have the potential to affect them (e.g. installation of cables near landfall at Skateraw);
 - liaising with East Lothian Council and Scottish Borders Council when necessary; and
 - liaising with the police and emergency services when required.
44. The Contractor's CLM will maintain contact with the Applicant SEM, especially to obtain their approval prior the engagement with the local community.

2.1.4. SUPPORTING ENVIRONMENTAL ROLES

Archaeological Contractor

45. The Archaeological Contractor will be in post throughout the construction phase, and, if required, during the operation and maintenance phase, and will be the first person that the Applicant Environmental Manager will contact relating to archaeological matters. The roles and responsibilities associated with the Archaeological Contractor are outlined in the WSI and PAD (annex D of this EMP).

Marine Mammal Observer

46. A Marine Mammal Observer may be in post throughout noisy activities during the construction period if required. These periods and the roles and responsibilities associated with the Marine Mammal Observer are outlined in the MMMP (volume 4, appendix 23). In addition, a Passive Acoustic Monitoring operator/Acoustic Deterrent Device operator may also be in place, if required, and their associated roles and responsibilities are also outlined in the MMMP (volume 4, appendix 23).

Fisheries Liaison Officer

47. The Applicant will be required to appoint a Fisheries Liaison Officer (FLO). The main responsibilities of the FLO will include:
- acting as key point of contact for the Proposed Development for fisheries stakeholders;

- identifying commercial vessels and skippers operating in areas relevant to the Proposed Development and potential interactions of the Proposed Development and associated activities with fishing operation within and around the Proposed Development;
- liaising with fisheries stakeholders through regular meetings and maintaining a vessel database, including vessel descriptions, information on fishing techniques deployed, skipper's issues and contact details;
- preparing and circulating information and notices (e.g. notices to mariners) relevant to the Proposed Development and associated activities that might interact with fisheries stakeholders;
- establishing and maintaining a sound working relationship with the fishing industry and communicating, on behalf of the Applicant;
- identifying and communicating to the Applicant relevant fishermen's concerns and sensitivities in regard to the activities of the Proposed Development; and
- acting as an OFLO, when necessary.

Offshore Fisheries Liaison Officer

48. OFLOs will be appointed onboard survey and construction vessels to communicate with fisheries stakeholders at sea where this is deemed to be required.
49. Main responsibilities of the OFLO will include:
- communicating regularly with the FLO and the Applicant and/or their Contractors/Subcontractors regarding fishing vessel activities around the Proposed Development;
 - informing the masters and watch officers of survey and construction vessels of fishing activities (including gears and operation methods) in the area surrounding their vessel working zone(s) along with communicating with the vessel masters to provide relevant details of fishing vessels (e.g. location, operation, schedule of activities and advisory safety zones);
 - liaising with fishermen who may have static gear deployed in the vicinity of the Proposed Development as well as around the Proposed Development advisory safety zones and vessel transit routes; and
 - collaborating with vessel masters to ensure compliance with relevant aspects of the FMMS (volume 4, appendix 24).

Marine Coordinator

50. A Marine Coordinator shall be appointed for the Proposed Development. The key responsibility of the Marine Coordinator will be the coordination of day-to-day vessel activity associated with the Proposed Development.
51. Some of the main duties of the Marine Coordinator in relation to the EMP include:
- coordinating daily activities of vessel on the Proposed Development;
 - supporting the fulfilment of the requirements outlined in the EMP and relevant Consent Management Plans particularly regarding:
 - informing and advising other vessels working in the area of a potential archaeological discovery;
 - assisting in the coordination and execution of the planned response to a pollution incident from a vessel or vessel associated activity and keeping the Applicant informed (see annex A). Key roles that will be kept informed will be the Applicant Project Manager, the Applicant Environmental Manager, the Applicant ECoW and relevant Contractors/Subcontractors; and
 - supervising the planned response and any clean-up operation required in the event of a spill originating from an installation of the Proposed Development (see annex A).

2.1.5. CONTACT DETAILS

52. A Proposed Development Contacts Sheet will be compiled prior to the commencement of construction at the Proposed Development. This list will include contact details of all Applicant, Contractor/Subcontractor and relevant third parties. This list will be made available to the Proposed Development Team and will be regularly updated throughout the construction and operation and maintenance phases.
53. The complete list of contacts is provided in the Contacts Sheet (annex E of this EMP).
54. As a minimum, the Contacts Sheet will include the following information:
 - company/organisation;
 - position;
 - name;
 - telephone/mobile number;
 - email address; and
 - office location.

2.2. COMMUNICATIONS AND REPORTING

55. Regular progress meetings will be held before and during construction and operation and maintenance activities, between the Applicant Environmental Manager (and the Applicant ECoW as required) and relevant Contractors/Subcontractors. During these progress meetings, the Applicant Environmental Manager and/or Contractor's Environmental Manager will present a section on environmental management and consents compliance.
56. Contractor/Subcontractor RAMS will be reviewed and copies of the relevant consents will be provided to the Contractors and/or Subcontractors and they will be made aware of the consent obligations associated with a particular activity.
57. All Applicant personnel, Contractors and Subcontractors should report any environmental concerns or issues immediately. A Safety and Environmental Awareness Report (SEAR) will be completed for all potential (near miss) or actual environmental incidents or emergencies which occur on-site.

2.3. EXTERNAL COMMUNICATIONS

58. External communications, notifications and reporting including any environmental incidents in relation to the Proposed Development activities will be carried out in accordance with the commitments included in the Offshore EIA Report and the requirements of the consent conditions.

2.3.1. INCIDENT REPORTING

Environmental incidents

59. The procedures to report spill or pollution events are provided in the MPCP (annex A to this EMP).
60. The procedures to carry out following an environmental incident (excluding marine pollution incidents) will be provided in the Environmental Incident Reporting Procedure which will be produced, approved and annexed to this EMP prior to the start of the construction activities.

2.3.2. DROPPED OBJECTS

61. All dropped objects deemed to be a hazard to safe navigation by the Applicant, Contractors or Subcontractors will need to be recorded and reported to MS-LOT via the Marine Scotland – DROPOB1 - Offshore Wind & Marine Renewables Dropped Objects Form (included in the FMMS volume 4, appendix 24).

2.4. TRAINING, AUDITING AND CHANGE MANAGEMENT

2.4.1. COMPETENCE, TRAINING AND CHANGE MANAGEMENT

62. Contractors and Subcontractors will ensure that they have adequate environmental management resources and procedures in place for the duration of the Proposed Developments scope of works that they are contracted to undertake. To ensure adherence to the EMP and environmental and consents requirements all Contractors documentation will be reviewed by the Applicant.
63. The Contractor's Environmental Manager will be responsible to provide environmental training and promoting awareness regarding environmental management using various means such as:
 - inductions;
 - toolbox talks; and
 - awareness materials.
64. Further information on these means is included in Table 2.1.

Table 2.1: Methods of Environmental Training and Promoting Environmental Awareness

Means to Deliver Environmental Training and Promote Environmental Awareness	
Induction	<p>Environmental induction training will be presented to all the personnel working and visiting the site (the Applicant personnel, Contractor/Subcontractor employees, suppliers and other visitors) to inform them of the content of the EMP that is applicable to them.</p> <p>The following details, as a minimum, will be provided to all inductees:</p> <ul style="list-style-type: none"> • description of the specific environmental risks relevant to the inductees' work onsite; • description of the main environmental aspects of concern at the site; • species and/or habitat protection requirements; • archaeological safeguarding measures; • pollution prevention measures; • waste management measures; and • plant service and repair procedures. <p>An Environmental Constraints Map, based on survey data collected during the planning and pre-commencement phases, showing constraints by environmental sensitivities will be provided to the Contractor and updated as required.</p> <p>The Contractor will produce an Environmental Risk Map to be used during induction and displayed on-site and update the Environmental Risk Map, when necessary, following consultation with the Applicant Environmental Manager. A toolbox talk will follow any update to clarify the changes and offer discussion opportunities. The Environmental Risk Map will be based on the Environmental Constraints Map and will illustrate the sensitive areas and potential sources of pollution.</p>

Means to Deliver Environmental Training and Promote Environmental Awareness

Toolbox talks Regular toolbox talks and training will be delivered by specialist staff on-site to discuss any update to the EMP relevant to the personnel on-site together with environmental issues arising on-site to ensure continuous training and reinforce environmental awareness.

The toolbox talks will be scheduled at least one week before the beginning of the construction activities and will be in line with the programme of construction and operation and maintenance phases' activities. In the case of non-compliance with the EMP or unforeseen circumstances, additional toolbox talks and training will be scheduled.

The Contractor will maintain a record of all the toolbox talks and training delivered and provide it to the Applicant Environmental Manager when requested.

The following environmental training, as a minimum, will be provided:

- training on the use of spill kits (onboard vessels and in water), on a regular basis (e.g. to account for staff/Subcontractor changes).

Additional toolbox training may include:

- waste management, including waste storage, waste segregation and littering;
- control of fuel and refuelling, and fuel handling procedures; and
- ecologically and archaeologically sensitive areas.

Awareness materials Environmental notice board(s) will be prominently displayed to permit all personnel to be able to review a notice board on a daily basis. One notice board will be positioned in every vessel congregation area as a minimum.

The environmental notice board will be maintained by the Contractor and updated when required (at least monthly) throughout the construction phase.

The following information, as a minimum, will be provided on the notice boards:

- description of the key environmental risks alongside the risk mitigation measures;
- the Environmental Constraints/Risk Map illustrating the location of the environmental sensitivities and the required zones of exclusion;
- location of emergency response equipment; and
- key contact numbers and responsible personnel.

To promote good environmental practice and to inform all personnel on-site, environmental labels and signs will be used across the site.

65. The Contractor's Environmental Manager will ensure that environment and consents issues, highlighting the key environmental sensitivities and considerations, are covered in a dedicated section within wider Contractor inductions for the Proposed Development. All the Applicant staff, Contractors and Subcontractors will receive a Proposed Development induction.
66. Specific training on the purpose, requirements and procedures of the EMP and its related annexes will be delivered in toolbox talks by the Contractor's Environmental Manager. Toolbox talks will be prepared to communicate clearly and concisely the key points to the Proposed Development staff (as advised by IEMA, 2008). Toolbox talks prior to specific activities taking place during the construction, operation and maintenance phases (e.g. pilling activities) to identify specific control measures and mitigation requirements, will also be undertaken.

67. The Contractor's Environmental Manager will provide awareness materials in various forms, likely to include among others, training packs, posters, signs and newsletters.
68. In order to update relevant personnel (including new staff) with any revisions in the requirements or procedures, training will be carried out regularly for the duration of the Proposed Development and the Contractor's Environmental Manager will keep a record of the training provided.
69. The Applicant Environmental Manager will be responsible, directly or by contractually requiring a Contractor, for the promotion of awareness and environmental training to the relevant personnel during the operation and maintenance phase of the Proposed Development.

2.4.2. MONITORING AND AUDITS

70. The Commitments Register will be the principal tool available for ensuring compliance with consent conditions and mitigation commitments. The Commitments Register will contain all the commitments (e.g. mitigation measures and monitoring measures) included in the Offshore EIA Report and the phase/duration over which they apply.
71. The Commitments Register will also provide a track and audit trail of compliance throughout the construction and operation and maintenance phases of the Proposed Development.
72. The Commitments Register will be prepared and approved in advance of the construction phase. The Commitments Register will be maintained throughout the construction phase of the Proposed Development. Similarly, prior and during the operation and maintenance phase, the Commitments Register will be updated, reviewed and maintained.
73. Compliance with the EMP will be monitored through a series of audits during the construction and operation and maintenance phases of the Proposed Development. Following a toolbox talk, an audit will be scheduled to ensure the requirements and procedures have been understood by, for instance, undertaking site visits and conversation with relevant personnel to monitor awareness. Checklists, informed by review of the EMP and Contractor RAMS, will be prepared. These will be used to facilitate the audit process.
74. The following environmental audits may be completed:
- at least one per quarter, to be confirmed by the Applicant. The Applicant may choose to undertake audits more frequently;
 - on a monthly basis during construction. These will be undertaken by the Contractor's Environmental Manager and a record of all completed audit forms, and records of corrective action and close outs will be maintained and provided to the Applicant Environmental Manager;
 - audits of Subcontractors on a quarterly basis to be undertaken by the Contractor's Environmental Manager. Audit reports will be provided to both the Contractor and the Applicant within two weeks of the audit being undertaken;
 - environmental inspections will be undertaken weekly during construction by the Contractor's Environmental Manager and all relevant records will be delivered to the Applicant when and as requested.
75. A record of all the details and findings arising from monitoring and audit activities will be maintained and any observation or corrective actions will be addressed, with procedures revised in the EMP as required. These will be submitted to the Applicant for approval prior to implementation.

2.4.3. REVIEW AND CHANGE MANAGEMENT

76. The EMP will be reviewed at regular intervals throughout the construction and operation and maintenance phases of the Proposed Development. The Applicant will contractually require Contractors' and

Subcontractors' Environmental Managers to comply with the EMP. All updates to the EMP made by the Contractor require the review and approval of the Applicant.

77. The EMP will be reviewed at regular intervals or when any important new information, methods, procedures or good environmental practice become available. The schedule for reviews will be agreed with MS-LOT post-Application. The EMP will also be revised following any findings or lessons learned during the construction and/or the operation and maintenance phases.
78. In the event of a new environmental sensitivity being identified during works, change management procedure will be followed by the Contractor's Environmental Manager (as recommended in IEMA, 2008). An assessment of potential impacts will be initiated by the Contractor's Environmental Manager following the notification of a change and if necessary, the EMP will be updated and submitted to MS-LOT for approval. Every change to the EMP will be recorded as part of the EMP review audit trail, and this will include details of the review undertaken.

3. PART II: ENVIRONMENTAL IMPACTS AND CONTROL MEASURES

3.1. ENVIRONMENTAL IMPACTS AND CONTROL MEASURES

79. In this section of the EMP, commitments stated in the Offshore EIA report will be translated into an appropriate format allowing their practical implementation by Contractors and Subcontractors. This follows IEMA Practitioner Guide, which states that "the overall objective of an EMP is to provide a continuous link or 'bridge' between the design phase of a Proposed Development, conditions attached to consents, Proposed Development construction, and into the operational phase" (IEMA, 2008).
80. The complete list of enhancement, mitigation and monitoring commitments is provided in volume 3, appendix 6.2 as a Commitments Register. As the Commitments Register is developed from the commitments made within the Offshore EIA Report and in compliance with consent conditions, adherence to the EMP and accompanying annexes, will ensure compliance with the consents awarded for the Proposed Development in relation to environmental considerations.

3.2. MANAGEMENT OF KEY ENVIRONMENTAL ASPECTS AND COMPLIANCE OBLIGATIONS

3.2.1. MARINE SPECIES

81. In the event of a wildlife incident occurring as a result of activity associated with the Proposed Development (e.g. injury to a marine mammal, or an observed fish or bird mortality), the incident will be reported to the Applicant Environmental Manager or Applicant ECoW as soon as possible. Details of the activity being undertaken, pictures and weather conditions are the minimum information to be provided. The Applicant Environment Manager or Applicant ECoW will follow up with the relevant regulatory authority, where appropriate. The approach to management and mitigation of potential impacts on marine mammals is provided in the MMMP (volume 4, appendix 23).

3.2.2. MARINE ARCHAEOLOGY

82. The procedures to be followed on discovering any marine archaeology during the construction and operation and maintenance phases of the Proposed Development are set out in the WSI and PAD (annex D to this EMP).

3.2.3. OTHERS MARINE USER

83. The approach to management and mitigation of potential impacts on other marine users is described in volume 3, appendix 6.2. and provided in the following plans:
- FMMS (volume 4, appendix 24);
 - NSVMP (volume 4, appendix 25);
 - ANMP (volume 4, appendix 26); and
 - LMP (volume 4, appendix 27).
84. Some of the specific measures adopted by these plans are:
- the adoption of advisory safety zones;
 - appropriate notification of activities to other marine users;
 - a clear process of marine coordination of all vessels and vessel activity;
 - appropriate marking and lighting of vessels;
 - appropriate marking and lighting of the Proposed Development; and
 - vessel transit planning, commercial fisheries relations and management of commercial fisheries interactions.

3.2.4. MARINE POLLUTION PREVENTION AND CONTINGENCY PLANNING

85. The measures to be adopted to minimise the impacts from the release of pollutants from construction and operation and maintenance phases of the Proposed Development are set out in the MPCP (annex A to this EMP).

3.2.5. INVASIVE NON-NATIVE SPECIES

86. The measures to be adopted for the management of marine Invasive Non-Native Species (INNS) during construction and operation and maintenance phases of the Proposed Development are set out in the INNSMP (annex B to this EMP).

3.2.6. WASTE MANAGEMENT

87. A Waste Management Plan (WMP) is required by all Contractors and Subcontractors setting out details of all waste management procedures for their activities and details of expected waste arisings and following procedures for waste management. The following aspects are expected to be a minimum requirement for the WMP:
- analysis of the waste arisings/material surpluses;
 - specific waste management objectives for the Proposed Development;
 - methods proposed for prevention, reuse and recycling of wastes;
 - material handling procedures; and
 - proposals for education of workforce and plan dissemination programme.

88. Some of the key responsibilities of the Contractors and Subcontractors addressed in the WMP are expected to include:
- complying with all relevant legislative and Offshore EIA report requirements and seek mandatory permits and licences regarding waste management;
 - providing a waste reduction toolbox talk to all personnel to increase awareness of recycling and waste reduction, and make sure the requirements of the WMP are understood;
 - handling waste materials and refuses to limit the damage and disturbance as much as possible;
 - sorting all waste in their specific suitably labelled secure container;
 - checking the contents of the site waste and recycling containers on a weekly basis;
 - reducing waste through reduction, recycling or waste elimination measures when feasible;
 - storing and returning all relevant waste to shore and disposing of it according to the legal waste management framework; and
 - agreeing with the principles of the Basel Convention of 1989 to avoid hazardous waste being unfairly exported to developing countries.
89. The WMP must be provided to the Applicant for approval prior to commencement of the activities.
90. The WMP will be updated for the operation and maintenance phase of the Proposed Development.

4. REFERENCES

Institute of Environmental Management and Assessment (IEMA) (2008). *Environmental Management Plans, Best Practice Series*, Volume 12, December 2008.

Scottish Government (2019). *The Electricity Act 1989 (as Amended), The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (As Amended), Decision Notice for the Section 36 Consent for the Construction and Operation of the Moray West Offshore Wind Farm, approximately 22.5km Southeast from the Caithness Coastline*. June 2019.

Scottish Government, (2022). *The Energy Act 2004 Decommissioning of Offshore Installations and Decommissioning of Offshore Renewable Energy Installations in Scottish waters*



5. PART III: ANNEXES

ANNEX A – MARINE POLLUTION CONTINGENCY PLAN



ANNEX B – INVASIVE NON-NATIVE SPECIES MANAGEMENT PLAN



ANNEX C – SCOUR PROTECTION MANAGEMENT PLAN



ANNEX D – WRITTEN SCHEME OF ARCHAEOLOGICAL INVESTIGATION AND PROTOCOL FOR ARCHAEOLOGICAL DISCOVERIES



ANNEX E – CONTACTS SHEET

Name	Role	Company	Phone Number	Email Address	Office Location
[TBC]					
[TBC]					
[TBC]					

