



Marubeni



Appendix 21: Environmental Management Plan

Array EIA Report

2024

Revision	Comments	Author	Checker	Approver
FINAL	Final	Ossian OWFL	RPS	RPS

Approval for Issue		
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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

1. This outline Environmental Management Plan (EMP) has been prepared by RPS and Ossian Offshore Wind Farm Limited (Ossian OWFL), a joint venture partnership between SSE Renewables (SSER) Limited, Copenhagen Infrastructure Partners (CIP) and Marubeni Corporation (hereafter referred to as 'the Applicant', to support the Environmental Impact Assessment (EIA) Report for the Ossian Array (hereafter referred to as 'the Array').
2. This EMP covers the activities included in the Array EIA Report as defined in volume 1, chapter 1.
3. 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 Array, ensuring the efficient management and dissemination of these commitments. This outline EMP will be updated prior to construction, between construction and operation and maintenance and then again prior to the decommissioning phase to encompass the environmental commitments associated with each phase.
4. This outline EMP also provides a foundation for the management of the potential environmental impacts associated with the Array, providing practical guidance to those involved in the construction and operation and maintenance phases of the Array.
5. Once finalised, all the Applicant's personnel and Contractors involved in the Array will be expected to comply with the EMP.
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 the mitigation measures and monitoring commitments made in the Array EIA Report are implemented.
8. The main objectives of this document are therefore to:
 - provide information on the Array, detailing the appropriate measures for the avoidance, minimisation and control of any environmental impacts associated with the Array identified as part of the Array EIA; and
 - provide a framework for monitoring the environment.
9. The EMP will be finalised and adopted prior to the construction phase of the Array 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 Array EIA Report, including those that are considered necessary to reduce potential impacts, are implemented. This EMP does not apply to the Proposed onshore infrastructure for Ossian landward of Mean High Water Springs (MHWS) or to the Proposed offshore export cable corridor(s). Separate EMPs will be developed for these elements of Ossian.

1.3. DOCUMENT STRUCTURE

12. This 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 Array 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); and
 - annex B – Invasive Non-Native Species Management Plan (INNSMP)

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 Array. 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 to the Array EIA Report. These outline consent plans include:
 - Marine Mammal Mitigation Plan (MMMP) (volume 4, appendix 22);
 - Fisheries Management and Mitigation Strategy (FMMS) (volume 4, appendix 23);
 - Navigational Safety and Vessel Management Plan (NSVMP) (volume 4, appendix 24);
 - Scour Protection Management Plan (SPMP) (volume 4, appendix 25);
 - Lighting and Marking Plan (LMP) (volume 4, appendix 26);
 - Aids to Navigation Management Plan (ANMP) (volume 4, appendix 26, annex A); and
 - Written Scheme of Archaeological Investigation (WSI) and Protocol for Archaeological Discoveries (PAD) (volume 3, appendix 19.2).
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 Array key receptors and provide detail on how that monitoring will be delivered across all stages of the Array (pre-construction, construction, post-construction and future decommissioning). This plan will be developed in consultation with Marine Directorate – Licensing Operations Team (MD-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 (DP²) 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 Proposed offshore export cables corridor(s), Piling Strategy (PS), Construction Method Statement (CMS), Construction Programme (CP), Development Specification and Layout Plan (DSLPL) and Design Statement. The majority of these plans require further detailed 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 Array 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, MD-LOT prior to the commencement of construction.
17. The outline consent plans included in the Array EIA Report will be reviewed and updated as necessary throughout the development of the Array, to a schedule agreed with MD-LOT. These documents will always

reflect the commitments made in the Array 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 ARRAY

18. The Array is a floating, offshore wind farm located off the east coast of Scotland, approximately 80 km south-east of Aberdeen from the nearest point.
19. The Array covers an area of approximately 859 km². It comprises up to 265 floating wind turbines and up to 15 Offshore Substation Platforms (OSPs). Subsea inter-array cables will connect the wind turbines to each other and to the OSPs, while interconnector cables will connect the OSPs to each other.

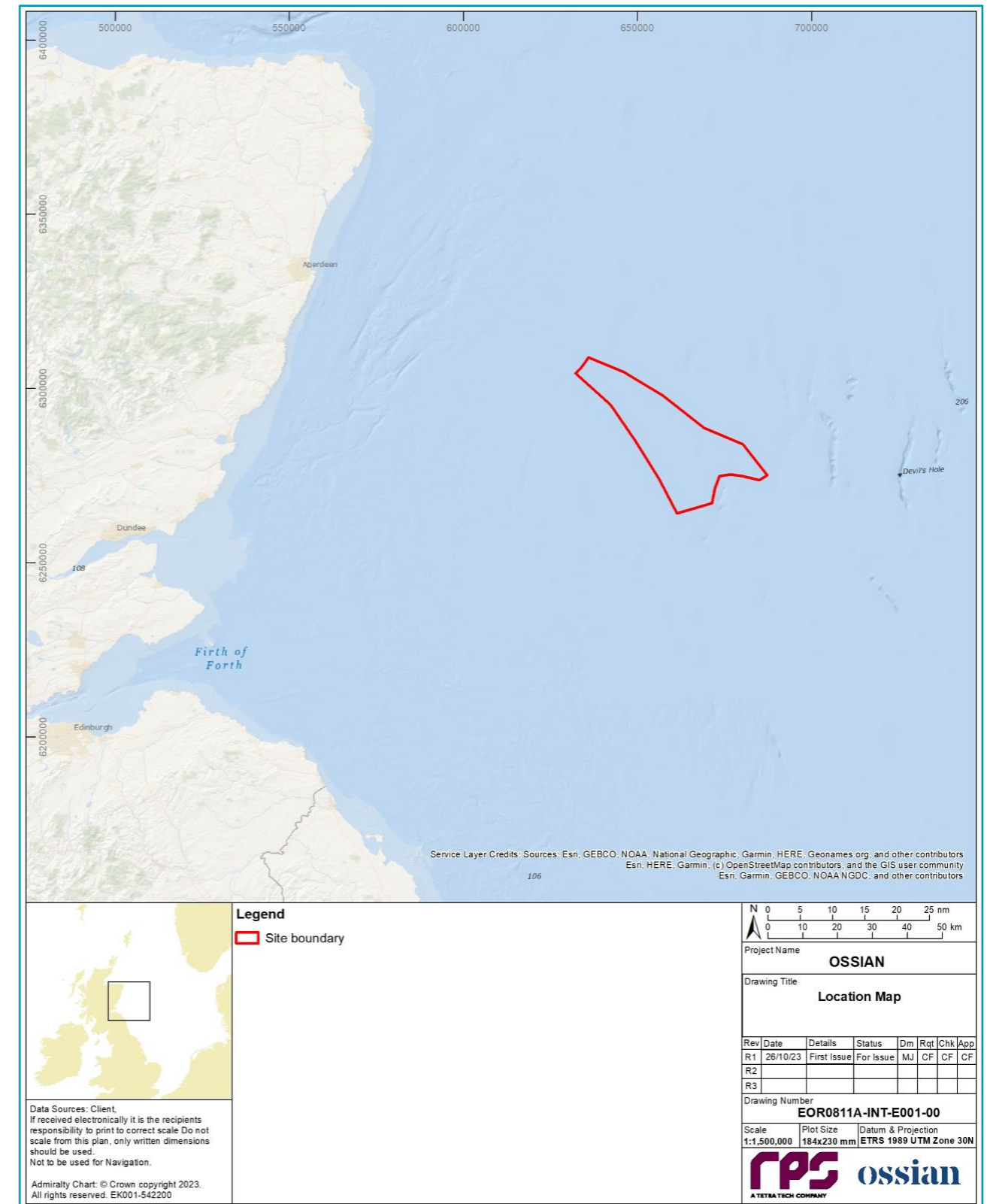


Figure 1.1: Location of the Array

1.5.2. CONSENTS

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

Table 1.1: Array Consents

Licence	Legislation	Provider	Date

21. The Applicant is submitting this EMP as part of the Array 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 1.2, 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 RESPONSIBILITIES

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. The 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 Contractor's/Subcontractor's Environmental Manager;
- the Contractor's Community Liaison Manager (CLM);
- Archaeological Contractor;
- Marine Mammal Observer (MMO²) (if required);
- Fisheries Liaison Officer (FLO);
- Offshore Fisheries Liaison Officer (OFLO) and;
- Marine Coordinator.

25. These roles will be further defined and agreed with MD-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 has been appointed since the development stage by the Applicant and will be in place for the construction phase of the Array, to manage ongoing compliance with the final EMP and all supporting documents, including those listed in section 1.4. An Environmental Manager will also be appointed by the Applicant to cover the operation and maintenance phase of the Array. 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 Array;
- 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 progress meetings relating to the Array, 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 MD-LOT for approval and will be required to remain in post throughout construction and into operation and maintenance phase of the Array.

31. The Applicant's appointed ECoW will report directly to the Applicant's appointed Environmental Manager and will work in cooperation with Contractors and Subcontractors. The Applicant's ECoW will also be required to agree a communication strategy with MD-LOT. The Applicant ECoW will notify all Array 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, based on conditions in previous Section 36 Consents issued for Scottish offshore wind farm projects:

- 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 Array.
- 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 MD-LOT at timescales to be determined by MD-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 Array 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 Array, including increasing awareness of environmental considerations.
- reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to MD-LOT.
- agreement of a communication strategy with MD-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 Array.
- 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 Array 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 Array 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 Array 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 Array.
36. A Contractor's Environmental Manager with relevant experience and expertise will be hired by the Contractor throughout each phase of the Array. The Contractor's Environmental Manager will verify the correct implementation on the Array of the environmental design, control and mitigation measures outlined in the Array EIA Report, EMP and supporting consent documentation.
37. A Contractors' CLM will liaise with the community during the construction phase of the Array.
38. All of the Applicant's Contractors and their Subcontractors will ensure that their works are in line with the requirements of the Array 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 Array;
 - ensuring adequate resources and processes are in place to ensure compliance with the EMP and manage the potential environmental impacts of their activities;

- providing risk assessments and method statements (RAMS) that address the 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 Array 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 Array;
- 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 Array environmental policies, plans, procedures and rules for the Array.

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 Array 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 Array;
 - 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 Array while ensuring consistency of these documents with the Array 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 Array 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.

2.1.4. SUPPORTING ENVIRONMENTAL ROLES

Archaeological Contractor

43. 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.

MMO²

44. A MMO² may be in post throughout noisy activities during the construction period if required. These periods and the roles and responsibilities associated with the MMO² are outlined in the MMMP. In addition, a Passive Acoustic Monitoring (PAM) operator/Acoustic Deterrent Device (ADD) operator may also be in place, if required, and their associated roles and responsibilities are also outlined in the MMMP.

Fisheries Liaison Officer

45. 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 Array for fisheries stakeholders;
 - identifying commercial vessels and skippers operating in areas relevant to the Array and potential interactions of the Array and associated activities with fishing operation within and around the Array;
 - 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 Array 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 Array; and
 - acting as an OFLO, when necessary.

Offshore Fisheries Liaison Officer

46. OFLOs will be appointed onboard survey and construction vessels to communicate with fisheries stakeholders at sea where this is deemed to be required.
47. 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 Array;
 - informing the master's 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 Array as well as around the Array advisory safety zones and vessel transit routes; and
 - collaborating with vessel master's to ensure compliance with relevant aspects of the FMMS.

Marine Coordinator

48. A Marine Coordinator shall be appointed for the Array. The key responsibility of the Marine Coordinator will be the coordination of day-to-day vessel activity associated with the Array.
49. Some of the main duties of the Marine Coordinator in relation to the EMP include:
- coordinating daily activities of vessel on the Array;
 - 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 MPCP). 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 Array (see MPCP).

2.1.5. CONTACT DETAILS

50. An Array Contacts Sheet will be compiled prior to the commencement of construction at the Array and included as an annex to the EMP. This list will include contact details of all Applicant, Contractor/Subcontractor and relevant third parties. This list will be made available to the Array Team and will be regularly updated throughout the construction and operation and maintenance phases.
51. 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

52. 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.
53. 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.
54. 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. All environmental incidents should be reported to the Applicant's emergency number within 30 minutes or when safe to do so.

2.3. EXTERNAL COMMUNICATIONS

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

2.3.1. INCIDENT REPORTING

56. The procedures to report spill or pollution events are provided in the MPCP.

57. 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

58. 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 MD-LOT via the Marine Directorate – DROPOB1 - Offshore Wind and Marine Renewables Dropped Objects Form.

2.4. TRAINING, AUDITING AND CHANGE MANAGEMENT

2.4.1. TRAINING AND COMPETENCE

59. Contractors and Subcontractors will ensure that they have adequate environmental management resources and procedures in place for the duration of the Array’s 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.

60. 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.

61. 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>
Toolbox talks	<p>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.</p> <p>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.</p> <p>The Contractor will maintain a record of all the toolbox talks and training delivered and provide it to the Applicant Environmental Manager when requested.</p> <p>The following environmental training, as a minimum, will be provided:</p> <ul style="list-style-type: none"> • training on the use of spill kits (onboard vessels and in water), on a regular basis (e.g. to account for staff/Subcontractor changes). <p>Additional toolbox training may include:</p> <ul style="list-style-type: none"> • 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	<p>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.</p> <p>The environmental notice board will be maintained by the Contractor and updated when required (at least monthly) throughout the construction phase.</p> <p>The following information, as a minimum, will be provided on the notice boards:</p> <ul style="list-style-type: none"> • 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. <p>To promote good environmental practice and to inform all personnel on-site, environmental labels and signs will be used across the site.</p>
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- 62. 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 Array. All the Applicant staff, Contractors and Subcontractors will receive an Array induction.
- 63. 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 Array 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.
- 64. The Contractor’s Environmental Manager will provide awareness materials in various forms, likely to include among others, training packs, posters, signs and newsletters.
- 65. 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 Array and the Contractor’s Environmental Manager will keep a record of the training provided.
- 66. 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 Array.

2.4.2. MONITORING AND AUDITS

- 67. 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 Array EIA Report and the phase/duration over which they apply.
- 68. The Commitments Register will also provide a track and audit trail of compliance throughout the construction and operation and maintenance phases of the Array.
- 69. 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 Array. Similarly, prior and during the operation and maintenance phase, the Commitments Register will be updated, reviewed and maintained.

- 70. Compliance with the EMP will be monitored through a series of audits during the construction and operation and maintenance phases of the Array. 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.
- 71. 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.
- 72. 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

- 73. The EMP will be reviewed at regular intervals throughout the construction and operation and maintenance phases of the Array. 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.
- 74. 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 MD-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.
- 75. 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 MD-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

- 76. In this section of the EMP, commitments stated in the Array 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 Array, conditions attached to consents, Array construction, and into the operational phase” (IEMA, 2008).

77. The complete list of enhancement, mitigation and monitoring commitments is provided in volume 3, appendix 6.3 as a Commitments Register. As the Commitments Register is developed from the commitments made within the Array EIA Report and in compliance with consent conditions, adherence to the EMP and accompanying annexes, will ensure compliance with the consents awarded for the Array in relation to environmental considerations.

3.2. MANAGEMENT OF KEY ENVIRONMENTAL ASPECTS AND COMPLIANCE OBLIGATIONS

3.2.1. MARINE SPECIES

78. In the event of a wildlife incident occurring as a result of activity associated with the Array (e.g. injury/disturbance 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 and/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.

3.2.2. MARINE ARCHAEOLOGY

79. The procedures to be followed on discovering any marine archaeology during the construction and operation and maintenance phases of the Array are set out in the WSI and PAD.

3.2.3. OTHERS MARINE USERS

80. The approach to management and mitigation of potential impacts on other marine users is described in volume 3, appendix 6.3. and provided in the FMMS, NSVMP, ANMP and LMP.

81. 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 Array; and
- vessel transit planning, commercial fisheries relations and management of commercial fisheries interactions.

3.2.4. MARINE POLLUTION PREVENTION AND CONTINGENCY PLANNING

82. The measures to be adopted to minimise the impacts from the release of pollutants from construction and operation and maintenance phases of the Array are set out in the MPCP.

3.2.5. INVASIVE NON-NATIVE SPECIES

83. The measures to be adopted for the management of marine Invasive Non-Native Species (INNS) during construction and operation and maintenance phases of the Array are set out in the INNSMP.

3.2.6. WASTE MANAGEMENT

84. 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 Array;
- methods proposed for prevention, reuse and recycling of wastes;
- material handling procedures; and
- proposals for education of workforce and plan dissemination programme.

85. Some of the key responsibilities of the Contractors and Subcontractors addressed in the WMP are expected to include:

- complying with all relevant legislative and Array 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.

86. The WMP must be provided to the Applicant for approval prior to commencement of the activities.

87. The WMP will be updated for the operation and maintenance phase of the Array.

4. REFERENCES

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

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

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